



WRONGFUL DEATH

The AIDS Trial

*A Novel by
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Chapter One

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“Grayson, *please* eat your cereal.”

Sarah tries to help her seven-year-old by putting a spoon filled with something that slightly resembles oatmeal into his hand and guiding it toward his mouth. Grayson only clamps his lips tighter and turns his head away until she gives up, hands him the spoon, and goes back to the counter to finish making lunches.

“And Peyton, you *have* to eat *something*.”

“I told you, I can’t eat in the morning, Mom. I’m already too fat! And please tell Grayson to close his mouth when he eats.” The eleven-year-old shoots a nasty look at her younger brother. “That’s disgusting!”

Grayson takes another spoonful of cereal, puts it in his mouth, looks directly at his sister, opens wide and lets some more dribble out onto his chin. Then he smiles with that devilish look in his eyes.

“Mom, he’s doing it again!” It isn’t a whine from Peyton as much as a plea for help.

“Grayson, stop it please...and *eat* your cereal, don’t *play* with it.”

Matthew, the oldest at thirteen, finally shows up for breakfast, sees his little brother spewing cereal out of his mouth like a volcano and gives him a gentle slap across the top of the head to try to make him stop.

“Mom, just once can’t we have bacon and eggs, or waffles, or anything that normal people have for breakfast? Do we always have to eat so...*healthy*?” Matthew knows he isn’t going to get an answer, or if he does, it would be the same one he always gets to that question. Peyton doesn’t wait for a response either.

“Mom, can you take me to get my piercing this afternoon?”

“Oh, Peanut, I’m sorry. Probably not today.” Sarah winces at the disappointment that makes its way across Peyton’s face, overshadowing her normally cheerful and captivating smile. “I

just can't promise anything today. I doubt it...I might have to be in court all day."

Sarah puts down the almond butter knife for a moment and looks out her oversized kitchen window into the perfectly manicured desert garden. It's hard to tell whether she's frustrated, confused, anxious, or simply thinking about the big day ahead.

"Bill, is that coffee ready yet? I really need..."

Before she can finish, Bill reaches around her with a full cup, putting it gently into her right hand and kissing her on the cheek at the same time, whispering in her ear, "It's a big day for you. Good luck!"

Sarah turns and kisses him back, blows away the steam rising from the cup, and then carefully takes a sip.

"Thanks."

She glances at her watch.

"Oh, my God. I just can't be late today! Kids, please help me out."

Bill takes the knife from her hand, unties her apron, and starts shooing her out of the kitchen.

"We'll be fine. This is important, so you go, now. I can finish their lunches." When Sarah resists, he insists. "Go ahead, get out of here. The kids and I will manage somehow."

Sarah takes a long look at Bill to make sure he's serious, then kisses him again. "Kids, your father is in charge. I'll see everyone tonight...love you."

Sarah tidies her hair in the hall mirror, puts on her suit coat, grabs her briefcase and keys, and punches a button on the wall as she enters the garage. She glances back at Bill one last time, who waves her on before the door closes between them. She then lowers herself into the driver's seat of her top-down Chrysler Sebring convertible.

Clearly, Sarah Meadows doesn't have to work. Her husband, Dr. William Meadows, is a very successful chiropractor who makes all the money they need, and then some. Their Scottsdale home is top-of-the-line, all three kids go to the right schools, and Sarah could stay at home and play mom fulltime if she wanted.

But she doesn't want. She's an intelligent and very capable woman with two degrees: Journalism and Alternative Health. She

feels like there is a contribution she can make, and wants to make, beyond that of being a really good mom. Her weekly column for the Arizona Tribune, *Health Matters*, fulfills and completes her in a way her husband and family simply couldn't; and rather than feel guilty about it, she feels blessed to be able to have it all.

Except today. Today she feels more stressed than blessed. This is without a doubt the biggest assignment she's ever had.

Sarah turns on the radio as she heads south on the Squaw Peak Parkway into the center of Phoenix. *Suite: Judy Blue Eyes* is just ending. She turns up the volume.

"David Crosby, Steven Stills, and Graham Nash...live from Woodstock, 1969 on your best Oldies station, 95.4. Keep it right here while we go to our Eye in the Sky. Roger, what's the traffic like this morning?"

"Pretty typical morning, Stan...slow moving on I-17 southbound into the city, especially as you approach the I-10 interchange. Superstition Freeway backed up westbound starting at the 101 exchange. 51 South okay except for a car stalled in the right lane at Bethany Home. And we have some accidents to report on surface streets, one at Camelback and 7th..."

Sarah punches a button on the radio to find a news station.

"...don't know exactly what to expect. Maybe a month, maybe two, depending..."

A voice she recognizes interrupts, "Do you at least expect them to finish both opening arguments today?"

Sarah assumes some paid legal expert is offering his opinion on the hottest story to hit Phoenix in quite a while, other than the weather. "That's hard to say. We still don't know what the defense has in mind. After all, this is the biggest trial in history, with a 3 *trillion* dollar price tag, and not since Richard Nixon in the 1970's have top government officials been involved in such litigation. I think we better expect some surprises, and definitely lots of posturing, which may start in just a few minutes."

"Thanks, Jeff. That was Jeff Manning here in Atlanta. I'm told we have Joseph Schell standing by at the Federal Courthouse in Phoenix. Joe, have the attorneys started to arrive yet?"

“It looks like the defense team has just pulled up and is starting to get out of their limos. I’m going to try to make my way through this mob and see if I can get a statement. Hold on for a second, will you...”

The sound on the radio turns to confusion, people shouting in the background. Schell’s voice is barely audible above the din, with bits and pieces coming through, “out of the way, please... look out... GNN radio, coming through...”

And then silence as Sarah turns off the car, having found one of the few empty parking spaces left within walking distance. She hurries toward the spectacular new, ultra-modern, 127 million dollar Federal Courthouse building at 401 West Washington Street, named in honor of Sandra Day O’Connor, an Arizonan and the first female Associate Justice of the United States Supreme Court.

As she rounds the corner she comes face to face with a mob scene only hinted at on the radio. Parked at the curb are three stretch limousines surrounded by news reporters from every kind of media from every part of the world. TV cameras and microphones are literally everywhere, most of them now pointing toward a dozen men who obviously just exited the limos and are trying to make their way to the courthouse entrance. The rest of the block is packed with demonstrators, crowds of people from both sides of the issue carrying signs and angrily hurling accusations at each other. The impact of the sound stops Sarah dead in her tracks, as if she had run into a wall.

While everyone else is focused outside, Sarah gets her body moving again and makes her way around the back of the mob and into the Courthouse. What’s going on out there is really not of much interest to her. *It’s what’s going to happen next, in here*, she says to herself. She knows how lucky she is to have a ringside seat, being a lowly health reporter. But as the hometown newspaper, the Arizona Tribune has just enough seats allocated in the courtroom to include her in the main event.

Her watch says she still has a couple minutes before the bell, so she ducks into the ladies’ room. As she’s washing her hands, she stares into the mirror, adjusts a misplaced strand of red hair,

and tries to ignore the early signs of crow's-feet. *Not bad for going on forty*, she thinks.

Chapter Two

“Good morning, ladies and gentlemen. My name is Benjamin Messick. I am the attorney for the plaintiffs. We are the ones who brought this class action suit against the defendants.”

Benjamin Messick is at the lawyers’ lectern, situated between the plaintiffs’ and defendants’ tables in the center of the courtroom, addressing the jury seated in their box to his right. Well-groomed, with hair reminiscent of John Kennedy, he’s in his mid-thirties and obviously works out regularly. Although on the shorter side in height, his voice is strong and deep with an underlying tone of sincerity that begs to be believed, and it would be difficult for any juror not to like this man or, at a minimum, listen carefully to what he has to say.

At least, that’s Sarah’s impression as she sits near the back of the courtroom. She takes a minute to look around at this very creative, circular structure used mostly for swearing in new American citizens, ceremonial proceedings, and an occasional appeals hearing. But it is also the perfect venue for large, high profile trials like this one, with its state-of-the-art audio, video and digital capabilities. A glass cylinder one-hundred feet in diameter and one-hundred feet high starting on the second floor of the Federal Courthouse and reaching all the way to the top of the building, this Special Proceedings Courtroom is paneled ten-feet high all around with Anigre wood from Africa and capped with a million dollar suspended glass ceiling that costs \$4000 just to clean. Sarah heard that window washers have to crawl across the top of the laminated glass with towels and window spray.

The biggest problem is the lack of adequate space for spectators, especially for a case that is drawing as much attention as this one. Every media in the world wants a seat, and therefore all six district courtrooms on the fifth floor of the Federal Courthouse were converted to closed-circuit coverage that will be different from the live TV feed to commercial stations. This allows a reporter to be there in the courthouse, see everything that goes on, and still be able to participate in the typical press

conferences that will undoubtedly occur on the steps leading down from the Special Proceedings Courtroom into the huge atrium on the ground floor of the building.

Fortunately, it's October, and the temperature is not that hot, because the heating and cooling system in the atrium hasn't worked right from the very beginning. Inspired by the misting system at a Hooter's Restaurant in Phoenix, the architect decided to use the same concept to keep summer temperatures down in the new courthouse. As one reporter put it, "What we got for our money was a giant atrium that is hot in the summer and cold in the winter. It would have been cheaper, more comfortable, and a lot more interesting to hold court at Hooters!"

Sarah's attention returns quickly to Messick, who is laying the foundation for his case.

"First, this is a class action suit. That means that we are suing on behalf of a lot of people, not just one. In fact, we intend to prove to you that at least 300,000 Americans, mostly young men, died as a result of what the defendants did in a ten year period from 1987 to 1997." He looks up from his notes, and slowly and with emphasis, punches his next line. "300,000 young men and women died in that decade. That's five times the number that was killed in the entire Vietnam War."

There's no doubt the jury is getting his point, even though some of them are too young to remember that tragic conflict. *He makes a good presentation*, Sarah thinks. She also knows he has the attention of the millions of people around the country watching the trial on TV, for Judge Watts could not have kept this trial off the tube even if she wanted to. From New York to San Francisco, from Miami to Maine, estimates were that as many people in the U.S. were watching the opening day of this trial as watched the Super Bowl last year, despite the fact that it was being aired live during mid-day work hours, East Coast time. Pre-trial hype had done its job, but Messick seems to be unperturbed by it all.

"The hardest thing we had to do next was determine what a human life is worth. Imagine trying to do that yourself. What would *your* life be worth to you, and to your loved ones left behind? A million dollars? Ten million dollars? One hundred

million? Whatever number we came up with would be somewhat arbitrary. But from previous lawsuits and insurance actuarial tables in the United States, we settled on the amount of ten million dollars for one human life, lost forever. Does ten million dollars seem like a lot? Well, it won't, I don't think, when I show you exactly how these defendants," pointing to the men seated at the table to his right, between him and the jury, "took forty, often fifty years of life from these victims and their families. Most of the young men who died were in their twenties or thirties – the prime of life, as we like to call it. Yes, I firmly believe you will decide that *that* is worth at least ten million dollars."

Messick looks around the jury box to see what kind of response he's getting so far. When he decides they're with him, he continues.

"From there it was pretty simple math, although the numbers were large. Ten million dollars times 300,000 deaths. That's 3 trillion dollars. Not *million*, not *billion*, but *trillion*. And that's one reason this is the biggest trial in history." Messick pauses for effect.

"But there's another reason: the defendants themselves," and he again points to the defendants' table, packed with suits. "You see at that table a former employee of the National Institutes of Health, Dr. Robert Gallo, the man who once claimed he discovered the cause of AIDS. Alongside him is a lawyer representing the Department of Health and Human Services of the United States government. And then there is another lawyer representing the Food and Drug Administration, the FDA. And beside him is a lawyer representing a private drug company called GlaxoSmithKline, which used to be known as Burroughs Wellcome. But this is not just any drug company; this is one of the richest drug companies in the world. What do all of these defendants have in common? They were the main figures in the medical disaster that resulted in the deaths of 300,000 young Americans, who died, according to *their* diagnosis, from AIDS."

It didn't take long for Messick to get to the point, Sarah thought. And why not? Everyone knows the issues in this trial, and there's no reason to avoid going straight for the jugular. Messick once again focuses on the jury.

“We will prove to you that these 300,000 men and women were misdiagnosed based on the incompetence and negligence of, primarily, Dr. Robert Gallo and the Department of Health and Human Services, which then led to the improper approval of a drug called AZT by the Food and Drug Administration; which then led to the manufacture and distribution of the drug AZT by the drug company at that time called Burroughs Wellcome. We will then prove that AZT was inappropriately but intentionally given to these 300,000 young men and women, and that it was the AZT and *nothing else* that caused these victims to develop AIDS and die.”

Messick pauses to give that time to sink in. He sees a couple of the jurors look at each other with raised eyebrows. This is obviously the first time any of them has been exposed to this idea, and he decides that he needs to repeat that just to make sure they got it. “Yes, you heard me correctly. We are going to show you that the vast majority of deaths from AIDS in this country from 1987 to 1997 were caused by taking the very drug that was supposed to treat AIDS and not from the virus called HIV.”

There’s a strange, almost sickening feeling in Sarah’s stomach, as if she were about to vomit. Must have been the day-old scone she ate driving downtown. *I should take as good care of me as I do Bill and the kids*, she reminds herself. She knows, of course, that Messick is wrong. *Dead wrong*. Like 99% of the rest of the world, she understands that HIV causes AIDS, and that’s all there is to that. End of story. So why, in addition to the nausea, is she beginning to feel afraid, as if some unknown monster is lurking just around the corner?

Messick, meanwhile, is still talking.

“...going to try to keep everything as simple as possible and stay away from complicated medical terms and discussions. But there will have to be some of that. For example, we’re going to start off talking a bit about the human body, and the immune system, and what AIDS actually is. Then we...”

I know what AIDS is, Sarah says silently to herself, but wishing she could say the same thing to Messick out loud. In fact, she is all too familiar with this fatal disease, both on a professional and a personal level. She had even done a lot of

volunteer work in AIDS clinics, especially after losing her brother. As memories begin to come flooding back, Sarah forces her attention back to Messick, who is still explaining to the jury what to expect from him in this trial.

“...show you actual video tape from 1984 of Dr. Gallo announcing to the American people in a press conference that he had discovered the cause of AIDS, a retrovirus later to be called HIV. We'll prove to you that this retrovirus Dr. Gallo took credit for discovering, first of all, was not his discovery at all, but something he stole from a French scientist named Dr. Louis Moreau, and that this retrovirus could not possibly have *anything* to do with causing the disease of AIDS, either then or now, as even Dr. Moreau later agreed. The facts we will present will be shocking in terms of the pride, the greed, the arrogance, the incompetence, and the gross negligence that led to this completely self-serving behavior on Dr. Gallo's part. Then we will...”

Sarah didn't expect *that*. Why would Messick think he could get away with attacking a brilliant and award-winning scientist like Dr. Gallo? What's his point? Sarah already knew that Dr. Moreau was eventually recognized and given a major share of the credit with Dr. Gallo for the discovery of HIV, so that wasn't new. But what did Messick call HIV? A *retro*-virus, or something like that? She had never heard *that* term before. She wrote it down to look it up later.

“...internal memos and other documents proving that the FDA short-cut its usual drug approval procedures to allow AZT to be given to patients who were HIV-positive, even though this same drug AZT had been rejected as far too toxic for human consumption just twenty years earlier, when it was developed as a treatment for cancer. We will ask the FDA how it could possibly approve a drug designed to attack cancer cells which were *multiplying* uncontrollably, to now treat a disease – AIDS – whose cells were *dying* uncontrollably. I really look forward to hearing someone try to explain that logic.”

Messick stops again to check the faces of each juror. Has he gone too far? Too fast? Are they listening? Are they following? These were such critical points, such important questions, that

virtually no one had asked in the past thirty years. No, that's wrong. There were indeed some people who had asked, like Dr. Peter Duesberg; so it is more correct to say that these are critical and important questions that no one in authority has properly *answered* in the past thirty years. Hopefully this jury would be different.

Sarah can't answer Messick's last question either, and it bothers her. As a health reporter, she should know the answer. Better make sure she finds out tonight, and she underlines the word *tonight* on her yellow pad. After all, that's her job.

"...literally paid the homosexual community to take AZT, through the placement of expensive ads and other benefits. We will show you that this drug company, Burroughs Wellcome, knew all along that AZT would destroy a human's immune system, and yet continued to push for young men and women to take AZT even if they had no symptoms of AIDS, simply because they were HIV-positive, to the tune of four billion dollars in sales."

"Objection."

As the lawyers argue, Sarah's mind wanders again, back almost fifteen years. It's a time and place she'd rather not go, and she's relieved when the Judge finally rules in Messick's favor. She forces her thoughts back into present time and realizes Messick sounds like he's winding down.

"...never forget that line in the movie, *Jerry McGuire*, 'Show me the money!' Well, I intend to show you where the money was in the case of AIDS, and how it resulted in the wrongful death of 300,000 young men and women. And when I'm finished, I'm going to ask you to take that money back from this pharmaceutical company, GlaxoSmithKline, and Dr. Gallo and the FDA and the Department of Health and Human Services, and give it to the families of those who died such a horrible, needless, and wrongful death."

But now Sarah's not sure whether Messick is finished or not. He's still leaning on the jury rail, appearing to be searching for his next words. Finally he turns, walks to the plaintiffs' table and stands behind the only chair there. Sarah makes some notes: "one chair for the plaintiffs...compare that to the more than half-dozen

at the defendants' table and half-dozen more in the row directly behind. Looks almost like a David and Goliath thing...."

When Messick doesn't move or begin talking again, the Judge quietly asks, "Counselor? Mr. Messick?"

Messick comes out of his daze. Whether real or created for effect, Sarah will never know. He looks at the Judge and finally takes his seat.

Judge Watts begins to explain, but only gets as far as, "That's all we're going to do this morning..." before pandemonium erupts and the press is on their feet storming the courtroom door trying to be the first out to file the story.

"...back after lunch at two p.m. for the opening statement by the defense. Court is in recess." Neither the Judge nor the gavel can be heard over the noise.

Chapter Three

Outside the Special Proceedings Courtroom, on the last landing going down the steps to the atrium, the defendants and their entourage of attorneys gather at the bank of microphones set up for just this occasion, surrounded by media a few feet below them. Every once in a while, Sarah can hear a snippet or two: “You’ll get our side this afternoon.... No comments now.... Ludicrous.... Unbelievable...” They don’t stay long, though, and are soon replaced by Benjamin Messick, clearly less comfortable there than in front of a jury. But Messick obviously knew that meeting the media like this was not only inevitable but necessary, and he came with a prepared statement, which he is reading.

“...very glad this trial has started. We’ve all waited a long time. It has taken thirty years to find a way to bring out the truth of AIDS. What you will hear in this courtroom in the next few weeks is probably going to shock you – the breadth and depth of the lies that have been told, and the lives that have been destroyed as a result. I look forward to this opportunity...”

A female voice interrupts him, “Is it true your best friend died of AIDS in 1994?”

Messick is obviously caught off guard. *How the hell did they find out...what has that got to do with...* “That’s all,” he answers and quickly makes his way through the crowd to the exit, waving off the dozens of different questions being asked – more accurately, *shouted* at him simultaneously.

Chapter Four

It's a typical newspaper room with desk-filled cubicles occupying every possible square inch. Sarah makes her way to one in the far corner that she shares with three other part-timers. Writing one column a week doesn't earn anyone very plush accommodations at this paper, or any paper for that matter, but Sarah doesn't mind. She's grateful to have the job and would put up with much worse if she had to.

Fortunately, although today is not her usual allotted time, the desk is free. She breathes a word of thanks and sits down, quickly moving some stacks of paper out of the way to gain access to the keyboard. She's in the middle of arranging her notes when Sam Moretti, her boss, appears. Sam is a middle-aged, over-weight son of an Italian immigrant with a rough and tough exterior, but for some reason he has a soft spot for Sarah.

"So?" Sam asks as he stops and leans against her cubicle wall.

Sarah just looks up at him, wondering if he had been lying in wait for her arrival. Sam means well, but she sometimes wishes he didn't treat her like the daughter he never had. When she doesn't answer, Sam tries again.

"So, how'd it go this morning?"

"I'm not quite sure." Sarah is a little surprised at her answer and suddenly realizes she really isn't sure.

"What's that supposed to mean?" Sam sounds more concerned than anything else. And again, when Sarah doesn't speak right away, he presses her. "How can you say 'you're not quite sure?' Weren't you there?"

"Of course I was there. Wouldn't have missed this chance for the world. But..." Sarah frowns and starts to try to explain. "I still don't understand. Why file this suit in the first place? There's obviously no basis in fact, so what's the motivation? Is it a publicity stunt, created specifically for the thirtieth Anniversary of AIDS? Is there some hidden political agenda that hasn't surfaced somehow? Or is this guy just some greedy lawyer taking

advantage of a few poor families, making them grieve all over again, trying to pocket a huge commission? I can't figure it out."

Sam pulls up a chair from the next cubicle and sits, partially in the walkway and partially in Sarah's office. Sarah glances at her notes before continuing.

"Benjamin Messick is the plaintiffs' attorney, and he just doesn't appear like the type to do something this off-the-wall. He seems to be intelligent, even humble; and he comes across as very sincere – which makes all this even more of a puzzle."

Sam decides to stay quiet and let Sarah try to figure this out on her own. She stares intently at her notepad and finally deciphers her next bit of shorthand, reminding her of what Messick said.

"But Messick *is* full of shit, no doubt." Sarah knows Sam picked up on the anger behind those words, and she quickly brings herself back under control and tries to divert his attention. "You should see it Sam – this guy Messick by himself on one side and a whole boatload of high-powered lawyers on the other. It's almost laughable."

It was the edge that Sam didn't like. One thing he insisted on from all of his reporters was to stay objective at all times and keep their own emotions out of the story.

"Sarah, are you sure you want to cover this? I've got two other full-time people from Legal there as well...."

"Don't you dare, Sam." Sarah leans forward in her chair and into his face. "This is *my* story. Don't you even think about taking it away from me." She backs away a little, realizing it was just that kind of outburst that Sam didn't want involved in the news, and decides to try another tack. "Besides, you need someone covering the health side of this trial, as well as the legal side." That sounded so lame, even to Sarah, that she falls back to what worked with Sam to get the assignment to begin with, and should work again. "Anyway, I've earned this, and I want it. Please...."

Sam knew he was had and threw up his hands. "Okay. All right. It's yours. Can you get me your first column by deadline tonight?"

Sarah relaxes a little, pushes her chair back, and starts rummaging through her briefcase. She finally retrieves an energy bar.

“I think so. We go back for the opening statements by the defendants at two. If they go too long, I'll just focus on Messick's opening. Either way, I'll definitely have you something by six.” She unwraps the bar and takes a bite. “By the way, can you help keep this desk clear for me while this trial is going on?”

“Maybe I can even find you another one that's all yours for the time being. I'll check.”

Sam turns and starts to walk away, then turns back. “Want some lunch before you start?”

Sarah shakes her head no, and raises the energy bar for him to see that she's all taken care of in that department.

“Sarah...” Sam gently teases her, but with genuine concern, “...when are you going to eat some *real* food?”

Sarah dismisses him with a wave of her hand, turns to her keyboard, and “Googles” *retrovirus*.

Chapter Five

The courtroom is buzzing with private conversations as Sarah walks in to take her seat.

“All rise.”

The bailiff’s booming voice commands respect and obedience, and by the time Judge Watts appears in her doorway, the crowd is on its feet in silence.

Judge Watts is a distinguished-looking black woman, around sixty, known to run a tight ship from her bench. She doesn’t put up with much, doesn’t like public spectacles, and therefore doesn’t seem very pleased to be hearing this particular case. She seats herself in a large plush chair behind the huge podium that stretches from one side of the courtroom to the other, designed more for a panel of three or five than a single justice.

“Be seated. And before we go on, ladies and gentlemen of the press, we’re going to get something straight. I will not tolerate disrespect of this court, or I’ll empty it faster than a gas tank in a Hummer.”

The crowd wants to laugh but isn’t sure if it could or should, so all that can be heard is a snicker. But Judge Watts has already made her point and people are going to listen.

“So let’s talk about this morning. From now on, no one moves or says a word before I have finished speaking and left my bench. And if just one of you violates that order, I’ll throw you all out. Is that clear?”

Heads nod agreement as Judge Watts looks around her courtroom. Satisfied, she’s ready to continue.

“Mr. Crawley, are you ready to present your opening remarks?”

Thomas Crawley is Dr. Gallo’s personal attorney as well as the lead attorney for the defense. Even seated he is an impressive figure, with shock-white hair, a tanned complexion, and perfectly manicured nails. When he stands, his six-foot-four frame adds to the powerful presence. Sarah marvels at how well her David and Goliath metaphor is playing out.

“Yes, Your Honor, we are ready.” Crawley’s voice is arrogant and confident. “And if it pleases the court, I will be making our opening statement on behalf of all the defendants, rather than belabor the court with multiple remarks.”

Judge Watts seems relieved to hear that; Crawley has already made his first score.

“In addition, I want the court to know that I will be very brief.”

Judge Watts settles back in her chair with an approving glance at Crawley. Score two for the defense in the first minute!

“Very well. Proceed, Mr. Crawley.”

Crawley moves to the lectern and hesitates a moment before beginning.

“Ladies and gentlemen of the jury, my name is Thomas Crawley. And I want to tell you first why my opening statement will only take a few minutes of your time. You see, the defendants, whom I represent, consider this whole trial to be an utter waste of time, for us, for the court, and especially for you, the jury. As Mr. Messick said, you see before you at the defendants’ table Dr. Robert Gallo. For years Dr. Gallo has been one of this nation’s top scientists at the National Institutes of Health, and he is now the director of the Institute of Human Virology in Baltimore, Maryland. He didn’t get there being stupid, or careless, or negligent. He, in fact, was co-responsible for identifying the cause of AIDS and spearheading its treatment. Mr. Messick claims that 300,000 people died of AIDS between 1987 and 1997. It could have been 3 *million* people if it weren’t for Dr. Gallo. He deserves a medal, perhaps the Nobel Prize, not a lawsuit.”

While Crawley pauses to let the jury fully appreciate the stature of the main defendant in this case, Sarah takes a good look at Dr. Gallo, seated at the defense table. She can’t decide whether he looks more like a scientist or a bureaucrat. The only thing she knows for sure is that he seems annoyed that someone would dare question him or anything he did, as if he too believed he was Nobel Prize material and above reproach.

“Next to Dr. Gallo is the Department of Health and Human Services, represented by their attorney, Mr. Crenshaw. This is

one of the most important departments of our government, charged with the responsibility of caring for our health and welfare. They also played a major role in keeping the AIDS epidemic from spreading into the entire population of this country. I mean, thirty years later, everybody knows that HIV causes AIDS! I don't understand why we are wasting your time on these issues.”

Crawley is definitely good, Sarah decides. And on top of that, he's right. This is definitely not going to be a fair fight.

“Next to him is the Food and Drug Administration, represented by Mr. Fogerty. The FDA is our watchdog, making sure the food we take into our bodies is the best in the world, and protecting the American people from dangerous or ineffective drugs. If AZT was a problem back then, or a problem now, I can assure you that the FDA would have taken swift action, as they have in many, many other cases. In fact, if it weren't for the FDA's rapid approval of AZT in 1987, we could have experienced an AIDS epidemic that would have rivaled the bubonic plague.”

Crawley is already in the zone and Sarah can see it. It's as if this is what he was born to do – manipulate people with words. She had heard rumors of his talent, and now she's seeing it in person. She marvels at his style: *so polished, so persuasive, so powerful. No wonder he's considered one of the best attorneys in the country.*

“And thank God for the research department at Burroughs Wellcome who could provide us with a drug as quickly as they did. They are represented by Mr. Gladstone. Ladies and gentlemen, Dr. Gallo and the Department of Health and Human Services and the FDA and Burroughs Wellcome *all* deserve awards today, not some frivolous lawsuit. And I could produce hundreds of studies with thousands of pages of research to show you just how frivolous this lawsuit really is. But the amount of information you would have to understand – most of it written in complicated medical language – could literally be overwhelming.”

As Crawley was delivering his opening remarks, Messick had been sitting with his hands clasped together on the table,

leaning forward on his arms, head slightly bowed. But as Crawley finishes that last sentence, Sarah sees Messick look up in disbelief. Apparently he thinks he knows what's coming, and it's also apparent he didn't expect it.

"Besides, the plaintiffs gave us a list of their witnesses. That's normal, that's how our judicial system works. Many of the names on Mr. Messick's witness list are exactly the same names that would be on *our* witness list, and his list of plaintiffs' exhibits is virtually the same as our list of exhibits. Now, I'm not totally sure what Mr. Messick is doing, but I *am* sure that his own witnesses and his own exhibits are going to tell a story very different from what he has led you to believe this morning."

Crawley looks directly into the eyes of each juror in turn as he delivers the next line.

"It is the plaintiffs who are responsible for proving their case to you, and we know they can't do it. Let me say that again. We know they can't prove their case...." Then looking directly at Judge Watts, he delivers his bombshell. "...and we will not dignify this travesty, this witch hunt, this preposterous case by putting on a defense."

Before Crawley could finish his sentence, the courtroom erupts, and a few even forget the Judge's warning just minutes earlier and bolt out of their seats, headed toward the door. Sarah just sits, stunned.

"Everyone sit down and shut up," Judge Watts bellows as she bangs her gavel over and over as hard as she can until there is relative calm and quiet. "Now, what did I just say? You sit there, and you sit quietly, and you can stay. Otherwise, you'll be watching this trial on TV with the rest of the world," she says, angrily pointing toward the cameras. When there is silence again, she looks at Crawley, and the look carries a question and a warning for him as well. She doesn't like theatrics in her courtroom, and she wants to make sure he knows he had crossed the line. But, to be honest, she is as curious as the rest, and as puzzled. She wants to hear what else he has to say. "Continue, Mr. Crawley."

"Thank you, Your Honor. Ladies and gentlemen of the jury, don't get me wrong. I will object to things Mr. Messick does that

he shouldn't do during the presentation of his case. I'm not going to let him run roughshod over the rules of our judicial system in the pursuit of his fantasy. And if I feel that he has confused you with his questioning of...*our* witnesses, I might cross-examine to clarify a thing or two. But when Mr. Messick has finished, you will see that not only has he failed to present even the slightest shred of proof for his case, but he has unjustly dragged my clients and the American people through the mud of sensationalism, and wasted your time and mine."

Crawley had them all in the palm of his hand. He knew he could do anything with them he wanted, but what he wanted most was to put all the pressure on Messick from the very beginning. "We will not be part of that, except as required by sanity and logic and the rules of this court."

Crawley once again looks at the Judge, as if to answer her unspoken question directly. "Have I been clear? We do not intend to defend ourselves from such..." looking for just the right words, "...ludicrous tripe." Then he looks back at the jury. "When Mr. Messick finally sits down, I am totally confident that you will already be able to find these defendants *not responsible* without my having to say a word."

Chapter Six

Sarah ceremoniously hits the Enter key to officially file her first column about the trial. She gathers her notes and a half-eaten energy bar and stuffs them back in her briefcase, grabs her suit jacket, and starts walking through the newsroom toward the elevators. As she passes the open door to the Research Room, she hears the TV monitors and stops to listen for a minute.

“Nine P.M. Eastern time...This is GNN, your Global News Network. Our top story tonight is, of course, the first day of the three trillion dollar AIDS trial in Phoenix, Arizona. This is a class action lawsuit on behalf of 300,000 Americans, mostly men, who died from AIDS during the years 1987 to 1997. And this trial started off with two major surprises. Rick Mann is at the Federal courthouse in Phoenix. Rick, what happened today?”

Sarah forgets about the elevator that arrived and slips into the Research Room to watch the GNN report.

On the TV screen, Rick Mann is standing with the huge glass courthouse some distance behind him in the background. This is so the camera can show the crowds of demonstrators that are still there with their signs, chanting slogans and hurling insults.

“Laura, today both sides gave their opening statements to the jury. Benjamin Messick, attorney for the plaintiffs, took almost three hours to tell the jury he would prove that Dr. Robert Gallo, who worked for the National Institutes of Health, and the Department of Health and Human Services wrongfully declared the virus called HIV as the cause of AIDS at a press conference in 1984. Further, Mr. Messick contends that the FDA improperly approved the drug AZT for the treatment of AIDS, and that the drug company called Burroughs Wellcome, now called GlaxoSmithKline, produced and distributed AZT to some 300,000 people who shouldn't have taken it. But the first surprise, according to Mr. Messick, is his contention that it was the AZT that actually caused AIDS in these victims, who later died, and says he will prove that they developed AIDS *only* because they took the AZT and *not* from the HIV.”

Laura Begley is back on the screen in GNN headquarters in Atlanta. "And what was the reaction from the defendants?"

These back-and-forth questions were obviously pre-arranged just to break up what might be a monotonous monologue, and it's clear Laura is reading from a script on the teleprompter. Rick continues without skipping a beat.

"Well, this was the other big surprise. The head of the defense team, Thomas Crawley, took less than 15 minutes to tell the jury he wasn't going to defend his clients. In this bold and daring move, Crawley said, and I quote..." Mann reads from his notes, "...we will not dignify this travesty, this witch hunt, this preposterous case by putting on a defense," then looks back at the camera. "He also said that the plaintiffs did not have, quote, even the slightest shred of proof, unquote, and called the entire case ludicrous tripe, frivolous, and a waste of time. This seemed to catch not only the court, but also the plaintiffs' attorney off guard. Here was Mr. Messick's reaction..."

Rick's face on the screen is replaced by videotape showing a crowd of reporters trying to get Messick to answer questions as he leaves the courthouse that afternoon. Without stopping he simply yells out to all the reporters present, "Mr. Crawley might change his mind when I'm finished...we'll see."

The video ends and Rick Mann picks up where he left off.

"Laura, the defense is counting on the plaintiffs being unable to prove their case, and therefore there would be no need for them to say anything when Mr. Messick is finished. Mr. Messick obviously thinks things will be different. Back to you, Laura."

Rick disappears from the TV, replaced by Laura in Atlanta. This time, she is not alone.

"Thanks, Rick. With us in the studio tonight is our chief health correspondent, Dr. Frank Keating, who will be joining us often as this trial progresses. Dr. Keating, what do you make of all of this?"

Dr. Frank Keating is a typical GNN consultant, available on call for interviews precisely like this one. He looks good on TV and speaks clearly, with intelligence and authority, which is why GNN calls on him so often.

“Well, Laura, the argument that the plaintiffs' attorney, Mr. Messick, is making, that the virus called HIV does not cause AIDS, is not a new argument at all. Way back in the early 1980's when all this started, the world's leading retrovirologist, Dr. Peter Duesberg, disagreed strongly with Dr. Gallo and eventually wrote a book called *Inventing the AIDS Virus*.”

Keating holds up a copy of Dr. Duesberg's book, and Laura is obviously thrown off script.

“Stop, please, Dr. Keating. You're going to have to make all this much simpler for us. You said Dr. Duesberg was the world's leading what?”

“Retrovirologist.”

Laura seems completely lost already.

“And that is?”

Keating realizes he has probably not only lost Laura, but most of the GNN viewers as well. He decides to slow down and go back to the basics.

“We keep calling HIV a virus, the ‘AIDS virus,’ and it technically *is* a virus, but a very special kind called a *retrovirus*. We don't know very much about retroviruses at all, where they come from, how they behave, what their role is in the human body. They are definitely different from the normal viruses we think of that cause diseases like colds or even polio. HIV is a retrovirus, and for years Dr. Duesberg was considered *the* expert on retroviruses, until Dr. Gallo announced that a retrovirus caused AIDS in 1984.”

Laura is almost back up to speed. “And Dr. Duesberg disagreed with Dr. Gallo?”

“That's an understatement. Dr. Duesberg fought bitterly with Dr. Gallo for many years, but the press hardly reported it. Virtually no one had heard of Dr. Duesberg, and all the American people knew was that the nation's leading cancer research scientist, Dr. Robert Gallo, said that HIV caused AIDS, and that was the end of that story.”

“Whatever happened to Dr. Duesberg?”

Keating frowned. “He was discredited as a scientist, lost all his research grants, was barred from any media appearances to

give his side of the story, and basically disappeared back into his laboratory at the University of California in Berkeley.”

Now Laura’s curiosity is peaked, which is what makes her such a good reporter. “Is he still alive?”

“Yes, and I expect that we’ll see him as a key witness for the plaintiffs as this trial progresses.”

“Dr. Keating, thank you. Looks like we’re in for some interesting times in the coming weeks. And now for other news...an early winter storm has hit Idaho and Montana, causing power outages and severe driving conditions...”

Sarah turns to leave the Research Room and immediately bumps into Sam who is standing there close behind her. She jumps back, startled.

“Please come to my office, Sarah.”

“Sam, I’ve got to get home to fix dinner for the family.”

This time Sam’s look is as intense as his voice. “Sarah, I need you to come to my office for a minute.”

Sarah quickly figures out this is not really an invitation, but an order. As Sam sits down behind his desk, Sarah closes the door, just in case something really bad is coming.

“Sarah, I was just reading your column on the trial.” He clearly is not sure how to approach the subject. With any other reporter, Sam would be direct and forceful and commanding. With Sarah, it’s different, and he’s not sure exactly why. After all, he is her boss, and he should be able to act, well, bossy. He musters up as much directness as he can. “I can’t let this go to press, Sarah.”

Sarah looks genuinely surprised. “Why not?”

Sam hesitates again. “I realize that you write a health column, and you’re not used to reporting on a case like this one. But you *are* a trained journalist, and if you’re going to cover this trial, we need you to give us a more objective account of what’s happening, even from the health perspective.”

“What do you mean, Sam?”

Sam picks up some papers from his desk, obviously Sarah’s column that she submitted a few minutes ago. He scans it quickly, searching for certain lines.

" 'The plaintiff's attorney, using some of the same lame arguments disproved two decades ago'.... 'At least the defense attorney respected the value of our time,'.... 'The courtroom looked like the playing field for David and Goliath – Mr. Messick against the best minds in the business. Only this time David doesn't stand a chance....' Come on, Sarah, you haven't written anything as one-sided as that since you were my student in high school."

Sarah finally sits down in the chair across from Sam. Her face is flushed, her voice has a hint of sarcasm, and she's on the attack rather than the defense. "Sam, this trial is a joke. If HIV didn't cause AIDS, the 'best minds in the business' would have found that out long ago. We wouldn't have had to wait twenty-five years for some camera-happy, publicity-seeking attorney like Benjamin Messick to clue us in...."

Sam cuts her off before Sarah says something he won't be able to overlook. "Sarah...stop. I've been watching the TV, too. Messick doesn't appear 'camera-happy' to me. What have you got against Benjamin Messick? Look, Sarah, I'm going to say it again...I really think you shouldn't be covering this trial, for your own sake."

Sarah is not used to being reprimanded. She also will not tolerate threats. She jumps up out of the chair quickly and angrily blurts out, "Don't ever bring that up again, Sam."

Sam is a little surprised by her forceful reaction. "Well, then either we don't run anything from you in tomorrow's paper, or you go fix this right now and make it right." He holds out the papers to Sarah across the desk.

Sarah hesitates for a moment. Then she grabs the papers, storms out of Sam's office back to her cubicle, peels off her coat, throws her briefcase down and picks up the phone to tell the family she'll be late.

Chapter Seven

“Dr. Fowler, how long have you been Chief of Internal Medicine at Johns Hopkins?”

“A little over five years now.”

Benjamin Messick is standing at the lectern, starting to ask questions of his first witness, Dr. Alan Fowler.

“And after you graduated from Harvard Medical School, what did you specialize in?”

“Immunology.”

Dr. Fowler seems very comfortable in the witness stand, Sarah notices. She decides, he must hire himself out as an expert witness a lot. Well, at least Messick is bringing in some big guns to help him out.

“And have you been published in the field of immunology?”

Thomas Crawley is out of his chair at the defense table, interrupting. “Your Honor, in the interest of time, the defense stipulates that Dr. Fowler is an expert witness concerning the human immune system.”

“Thank you, Mr. Crawley. Mr. Messick, you may proceed with your questions.” Judge Watts seems grateful to Crawley for sparing her the time. Messick simply turns his attention back to the witness box.

“Thank you, Your Honor. Dr. Fowler, will you please tell us how the immune system works in a normal human being?”

“We don't know with 100% certainty....”

Crawley is up again. “Your Honor, again, in the interest of time, the defense will stipulate to the definition of AIDS that Dr. Fowler will present.” He then turns directly to Messick. “I assume that's where you're going, counselor?” Then he turns back to the Judge. “We're very familiar with Dr. Fowler; he's been an expert witness for us in the past, and we know what he's going to say. We would have called him ourselves to present the definition of AIDS, and we are happy to skip all the technicalities and get right to the point.”

This is definitely not part of Messick's plan, and he does *not* want his case thrown off the rails before it even gets going.

"Your Honor, this is about more than just getting some definition of AIDS on the record. This jury needs to understand at least a little bit of how the immune system works to understand how AIDS is such a deadly disease."

Judge Watts motions to both attorneys. "Side bar, please...."

Sarah leans to her left to see if she can make out what's being said at the side bar, but she can't. She hopes that the Judge cuts this short, because the last thing she needs is to sit for hours listening to a high school lecture on the human immune system.

At the sidebar, Judge Watts also hopes she can cut this short. "Mr. Messick, what's your point with this witness?"

"Your Honor, I need to establish how the immune system works, and what the disease called AIDS is, so that the jury can work with the definition rather than just memorize it."

Like Sarah, this is the last thing Crawley wants. "Your Honor...."

But the Judge silences Crawley with a wave of her hand without looking at him or saying a word, and then motions to Messick to continue making his point.

"I'm going to show that if the defendants had adhered to the very definition of AIDS they propound, my 300,000 clients would have never been given AZT...."

Crawley tries again. "Your Honor...."

Once again Judge Watts waves off Crawley's interruption. "Mr. Messick, I feel a lot like Mr. Crawley here, that you might be wasting our time. But since this is the start of this trial, I'm going to give you some leeway. The minute I think you're losing the jury with unnecessary medical technicalities that can only result in their total confusion, and perhaps a mistrial, I'm pulling in your reins. Understood?"

"Yes, Your Honor. Thank you."

The Judge waves them both back from the sidebar. Crawley hides his disappointment as he sits down again and whispers to Dr. Gallo sitting next to him.

The Judge announces to the courtroom, "Mr. Messick may continue."

Messick repositions himself behind the lectern and scans his notes to refresh his memory.

“Dr. Fowler, you were about to tell us how the immune system works in a normal human being....”

“As I started to say, we don't know with 100% certainty. But I brought along some of the teaching aids I created at Johns Hopkins, if that will help.”

Messick turns to the Judge. “Your Honor, with the court’s permission, we’d like to show the jury a short video presentation....”

When neither the Judge nor Crawley object, Messick nods toward the back of the courtroom and a large TV is rolled to the front where the Judge and the jury can see it easily. Another big screen is placed in front of the spectators for them to watch. Sarah moves slightly to her right to get a better view.

With another nod, the lights in the courtroom dim and the TVs come alive. It is Dr. Fowler’s voice on the video.

“The human body has a wonderful and intricate immune system to help it fight off disease. One of the major components of that immune system is a group of cells called T cells. There are several different kinds of T cells, each with its own function. For example, ‘T4’ cells are also known as ‘Helper’ T cells.”

While Fowler narrates, high-tech graphics on the screen portray the Helper T cells in action.

“They're the watchdogs for the body. They continually search throughout the body, looking for anything foreign they don't recognize, and then notify the body about the invader. For example, if you get a splinter in your finger, the T4 cells will find it and then sound the alarm, warning of a possible danger.”

The video shows a young boy getting a splinter, and then the camera zooms in toward his finger and seemingly continues right through his skin to show an animated rendition of the T4 cells at work.

“Or if you come in contact with a strange bacterium or virus, or if you receive a new heart or kidney through a transplant, the T4 cells will activate the body's immune system. In other words, they help the body maintain its health.”

Messick shoots a glance at the jury to make sure they're with him so far. They are.

"What happens next is that 'Killer' T cells are released by the immune system...."

The video is very cleverly going back and forth between live shots of actual Killer T cells and animation of how they operate.

"...to destroy the invader and also any cells in the body which are presently infected by the outside organism. Then the immune system goes to work to produce *antibodies* – new 'special agents' specifically designed to fight any future invasion by this same intruder. This is the basic theory behind the smallpox vaccine, or any other vaccine."

The video zooms back out from inside the young boy's body, back through his skin, and stops to show him receiving a vaccination in a doctor's office.

"In a smallpox vaccination, for example, a very small amount of the virus is introduced in the body intentionally. The Helper T cells alert the immune system; the Killer T cells find and destroy all the smallpox virus and any infected cells; the immune system then creates the antibody against the smallpox virus; and the body is now ready to defend against any future smallpox invasion."

Messick interrupts. "I'm going to pause the tape there for a minute, please."

As the lights come back up, Messick turns to the witness. "Dr. Fowler, could you boil all that down to one or two sentences for us?"

Fowler isn't quite sure how he can make it any easier or simpler to understand, but he'll give it a shot. "Well, the immune system of a healthy human body protects us from disease using special cells we call T cells to alert the body to an invasion and attack the invader. When we've been successful in our defense, those cells that are fighting the invader are called off, and we make antibodies to fight that specific disease better in the future."

"And if this system is working correctly?"

"We might have some mild symptoms of a disease, but after a short time our body should return to normal and we will usually

not have that same disease again, because the invader has been neutralized and we are now protected.”

Messick looks at the jury to make sure he’s not losing them. They still appear to be okay. At least no one is sleeping or looking up at the glass ceiling.

“But can something happen to interfere with this process?”

Fowler hesitates a moment to once again find the most basic explanation possible. “Yes, a number of different things. One of the problems with Killer T cells, for example, is that they have to be calmed down and called off at some point or the powerful immune system might damage its own body. If the Killer T cells are operating on their own and out of control, it’s called ‘autoimmune disease.’ So there is another kind of T cell – the T8 ‘suppressor’ cell – whose job it is to stop the immune response and call off the killers. And all these different kind of T cells need to be of sufficient numbers in the body and in the proper ratio to each other.”

“And what is that ratio?”

“In a normal, healthy body, there are about a thousand T4 Helper cells per microliter of blood, and a ratio of two to one of T4 Helper cells to T8 Suppressor cells.”

Messick seems pleased that Dr. Fowler is able to keep this so simple. This is actually going better than I thought it might. Fowler was right when he suggested we use the video. Now let’s see if the jury can stay with it for the next step.

“Dr. Fowler, what if the numbers are less than normal, or the ratios are off for some reason?”

“We call that *immune deficiency syndrome*. That's when...but if you'll start playing the tape again, Mr. Messick, I think the video will answer your questions. There's not much more....”

Messick motions to the back of the courtroom. “Can we have the lights again please?”

The lights go down, Messick presses “Play” on the remote, and Dr. Fowler’s recorded voice continues on the video.

“Immune deficiency syndrome is not a new disease. It has been recognized by the medical profession for many years. There are three main causes of immune deficiency syndrome: malnutrition, sleep deprivation, and intentional interference with

the immune system through the use of drugs, for instance in organ transplants, to force the body to accept a foreign substance, and in cancer patients undergoing chemotherapy. This intentional interference is known as *iatrogenic*, meaning *caused by the doctor*.”

The TV screen had shown various examples of different kinds of patients demonstrating the different ways the body’s immune system can be compromised. Now another animation starts.

“What happens to a human body when the immune system can no longer function properly is quite clear. Disease results, either from an outside invader the body can no longer fight off, or from one of the millions of bacteria, viruses, protozoan parasites, or fungi we all carry with us every day of our lives. These are called *opportunistic diseases*, since they would not occur unless the opportunity arose to attack due to the malfunction of the normal immune response.”

Messick abruptly stops the tape, explaining, “I need to pause again at this point,” concerned that too much information too fast would send the jury packing. The lights come back up.

“Dr. Fowler, do I understand correctly that long before AIDS, the medical profession recognized diseases of the human immune system?”

“Oh, absolutely.”

“So the immune system, for some reason, would break down, and people would get sick.”

Fowler finally understood that the video was still too high a level and just how simple and basic Messick wanted him to be.

“Yes. They would get sick from ordinary diseases that could take hold because there was no functioning immune system to stop them. Again, we call those *opportunistic diseases*.”

“Could you name some of these opportunistic diseases?”

“Well, there’s *Pneumocystis carinii* pneumonia – commonly known as PCP – *cryptosporidium*, *herpes simplex*, *candida albicans*, *cytomegalovirus*, *toxoplasma gondii*, *aspergillus*, *cryptococcus neoformans*, *nocardia*, *strongyloides*, atypical *mycobacterium*, *papovavirus*...”

Messick remembers the Judge's admonition. "Okay, Dr. Fowler. Let me stop you there, because most of us..." Messick avoids looking directly at the jury so no one would think he was questioning their intelligence, "...don't understand a lot of those names."

"Sorry, yes. Let's just say that these are all infections by organisms that would normally *not* cause serious illness in a healthy body. Most of us would never get any of these diseases unless the immune system has been negatively impacted first, and then the disease takes that 'opportunity' to make us sick."

Messick feels like he's back on track. "And tell us simply, once again, what would compromise the immune system and allow these diseases to manifest?"

"Well, no doctor would be surprised to see any of these diseases in a patient who was malnourished, deprived of sleep for extended periods, or already suffering and being treated for another disease or condition with drugs that were known to be *immunosuppressive*. And there are quite a few drugs that can suppress our immune system – some intentionally as a matter of fact."

"Can you give us just one specific example?"

"The fungus that causes PCP, for instance, is known to inhabit the lungs of almost every human on planet earth, but rarely has the disease been seen in anyone but cancer patients whose immune systems are compromised because of their chemotherapy."

That's enough for now, Messick decides. Let's get to the point of why we're here.

"So, doctor, what is AIDS exactly?"

"AIDS stands for *Acquired Immune Deficiency Syndrome*. I figured you were going to ask me that question, so I brought the very first definition of AIDS from the Center for Disease Control in 1982." Fowler takes out a piece of paper from his coat pocket and begins to read, "...a disease, at least moderately predictive of a defect in cell-mediated immunity, occurring with no known cause for diminished resistance to that disease." He looks up at Messick again. "Basically, it's what we've been saying, that the person is manifesting a disease they got solely because the

immune system had broken down, and we don't know why. We don't know the cause of their immune deficiency. They've acquired it from someplace, but we just don't know where or how."

"Dr. Fowler, I'm sure you think that's very simple to understand, but is there any *simpler* way you could say this, and make it very specific to AIDS?"

Fowler sat there for a minute. This was truly a challenge, and he enjoyed challenges. Finally, he gave it a shot. "Well, let me try it this way. It is not uncommon for a cancer patient to get sick from some disease that would not bother a healthy person because we have intentionally destroyed the immune system they need to fight that disease, with drugs that we hope will treat their cancer. In other words, we know why *they* get an opportunistic disease. On the other hand, an AIDS patient will get really sick from any number of these same diseases that he, too, normally wouldn't get because his immune system stopped working correctly, just like the cancer patient. But in the case of the AIDS patient, there's no obvious reason for his immune deficiency. He's not malnourished, not sleep deprived, and not taking any immunosuppressive drugs ordered for some reason by a doctor. And yet, he has immune deficiency – his immune system isn't working right any more. And, like the cancer patient, since he has nothing left in his body to fight an opportunistic disease, he will often die."

"Thank you, Dr. Fowler."

Messick was finished with the witness. His next thought is: What is Crawley going to do? Is he really going to sit on his hands and not cross-examine, as he promised yesterday? Let's see.

Messick turns to Crawley and says, "Your witness," and then sits down at the plaintiffs' table.

When Crawley doesn't stand up or speak, Judge Watts also issues the invitation. "Mr. Crawley, do you wish to cross-examine?"

Crawley gets up slowly and addresses the Judge directly. "Your Honor, as I said earlier – a lot earlier – we accept the good

doctor's definition of AIDS exactly as he said it. And we could have saved a lot of time....”

Crawley immediately realizes he had just made a big mistake, and Judge Watts is letting him know by her expression that she's not at all pleased to be made wrong for her decision to let Messick continue with this witness. Crawley tries to pretend he never started down that road and quickly finishes with, “We have no questions of this witness.”

The Judge picks up her gavel and raises it in the air, but she pauses at the top of the arc to make sure no one is going to move until she's recessed the trial and left her bench. She glances around with this look of “Don't you dare!” and then a few seconds later announces, “We are recessed for lunch. Back at two p.m.” Her gavel finally drops to the podium with a bang. Sarah can hear the Clerk say “All rise” while the massive wave of reporters prepares to overwhelm the courtroom exit.

Chapter Eight

“I don’t get it, Sam.”

Sarah is sitting in a small downtown café close to the Courthouse with half an egg salad sandwich on spelt bread in front of her and a cup of coffee, talking to her boss on her cell phone.

“What don’t you get, Sarah?”

“Well, I talked to Dr. Fowler after his testimony. I was curious why he would be a witness for the plaintiffs, since it was clear that he, like the rest of the world, believes in the standard AIDS hypothesis, HIV and all....” She pauses to see if any of the mental fog would lift just by verbalizing her problem. It didn’t. Sam’s voice brings her back to the point.

“And he said?”

“He said that he was subpoenaed by Messick to testify for the plaintiffs.”

Sarah waits for Sam to express his surprise as well. But all Sam says is, “So?”

Sarah doesn’t understand why Sam doesn’t see the problem here. “Sam, think about it. Why didn’t Messick get his own expert witness who he wouldn’t have to force to take the stand? There are plenty of good ones out there. Why would he intentionally call a witness who he knew Crawley had himself previously used as an expert? In fact, Crawley and Fowler might even be good friends for all we know!”

“Does it matter?”

Now Sarah is more confused than ever. Is it just her? Is it Sam? Is it Messick? What’s going on here? Would no one else find this whole situation very strange? She decides to backpedal in case it’s her.

“I don’t know. Maybe not. I just wonder what he’s up to.”

Sam decides he has better ways to spend his time. “Have you got a column for tomorrow’s edition?”

“It was pretty much a high school biology lesson this morning. Not much to write about.”

Sam's anxious to end this conversation. But he's more anxious that he made the wrong decision about Sarah's presence at this trial in the first place. "Maybe it will get more lively this afternoon. Are you okay, kiddo?"

"Yes. I'm fine. And maybe it will. Messick's bringing in Dr. Goddard."

Chapter Nine

“Please state your name and spell it for the record.”

“Dr. Mark Goddard. G-o-d-d-a-r-d.”

“Dr. Goddard, what is your profession?”

“I’m retired.”

Messick reminds himself that this is another witness who may not really want to be testifying on behalf of the plaintiffs, and won’t necessarily be willfully forthcoming. Dr. Fowler turned out fine, but he can’t expect that from them all.

“I’m sorry, what *was* your profession, let’s say in 1981?”

“I was assistant professor of immunology at the UCLA School of Medicine.”

“Your specialty was with the immune system of the human body?”

“Yes.”

Let’s hope Goddard tells the straight story, Messick thinks, as he asks the next question.

“Can you tell us what happened in the early months of 1981?”

Goddard settles a little in the witness chair, but is still very much on his guard. Normally, he’s glad to tell anyone who will listen about his role in the discovery of AIDS.

“Colleagues of mine were sending me blood samples from patients who had just died.”

“How many patients are we talking about?”

“Dozens, Mr. Messick. Dozens.”

Messick takes in a deep breath. Looks like this is not going to be easy. Okay, one question at a time.

“Were there any patients in particular that come to mind, Dr. Goddard?” *You know what I’m talking about.*

“Well, what you want to know about originally involved five patients.”

Thank you.

“Did you run some tests on the blood samples from these five patients?”

“Yes, of course.”

Wow. Maybe Goddard wasn’t such a good idea after all.

“And what were the results?”

“Extremely low T-4 cell count.”

“On all five patients?”

“Yes.”

“And when you say ‘T4 cells,’ those are also known as the ‘Helper’ T cells – the ones that alert the body to a dangerous invader and start the immune defense system?”

“Yes.”

“And you concluded?”

“Their immune systems had obviously been compromised.”

“They had immune deficiency?”

“Yes.”

“And why did that surprise you?”

Now Goddard was in a dilemma. He really didn’t want to help Messick all that much, but he also didn’t want to detract from the contribution he had made to the discovery of AIDS.

“Because from the patients’ histories that were sent with the blood, there was no apparent cause for the immune deficiency.”

“Normally you would see a reason for immune deficiency in a patient’s history?”

“Yes.”

“Such as....”

“Such as malnutrition, or immunosuppressive drugs, mostly.”

Messick relaxes a little. He’s at least getting the information he wants the jury to hear out of this witness.

“You saw immune deficiency a fair amount in other patients, I take it?”

“It’s not uncommon. Mainly, though, in cancer patients who had done chemo, or failed transplant patients.”

“That wasn’t the case with these five patients that we’re talking about?”

“No.”

“But obviously, they had been very sick and died from some disease.”

“Yes. All of them had an opportunistic disease exactly like we’d expect to see in immune deficiency syndrome.”

“Did they all have the same disease?”

“No. A couple of them had *Pneumocystis carinii* pneumonia in common. But there were different diseases present.”

Although he continues to give only the barest of information, Goddard appears to be warming to his role in this trial. After all, he’s getting close to the good part – his part. And then Messick asks the \$64,000 question.

“But how did they get their immune deficiency?”

“That’s what I wanted to know.”

“And did you find out?”

“Eventually we all found out. It’s called HIV, Mr. Messick.” Goddard really enjoyed that jab.

Messick takes a step back and regroup. Try again a little different way. You’re doing okay. Just keep going, he assures himself.

“Okay, Dr. Goddard. Obviously you think that today, but I’m interested in what you knew in 1981 – twenty-five years ago.”

“Frankly, we didn’t know anything back then.”

“Well, did any of these patients have anything else in common other than their immune deficiency?”

“Yes.”

Oh, boy. Go ahead, make me work for it. “And what did they have in common, Dr. Goddard?”

“Well, for one thing, they were all homosexual.”

“Did they know each other?”

“No.”

“How do you know that?”

“Because they came from different parts of the country.”

“So they weren’t giving each other these diseases?”

“No, we ruled that out.”

“Anything else they had in common?”

“They all used amyl nitrite.”

Messick pauses for several reasons. He wants the jury to clearly hear this part of the testimony and be able to remember it for later.

“Dr. Goddard, briefly...” as if Messick had to ask Goddard to be brief, “...what’s amyl nitrite?”

“It’s a vasodilator.”

Oh, come on. Not that brief, please. “And what’s it used for?”

“It’s a drug used mostly in the treatment of heart disease, such as angina.”

“Did any of these five patients have heart disease?”

“No.”

“Then why were they using amyl nitrite?”

“Because back then there was widespread use of amyl nitrite in the homosexual community.”

That’s as far as Messick wanted Goddard to take it right now. He’d explore this idea in much greater depth later, with a different witness.

“So did you think you were looking at a new sexually transmitted disease?”

“I honestly didn’t know. All I knew was that these five patients had something I had never seen before, something we had no definition for at the time.”

Well, if you’re not going to come right out and say it, I am.
“Immune deficiency from an unknown cause, with an unknown transmission, leading to an opportunistic disease and then death, correct?”

“Yes. Correct.”

“So what did you do in May of 1981?”

“I wrote a paper about these five patients and what I had discovered, in hopes that someone else out there would be able to confirm my findings.”

“Was that paper published, Dr. Goddard?”

“Yes. It appeared in the June 5th, 1981, issue of the Morbidity and Mortality Weekly Report, published by the Center for Disease Control.”

“So you are famous as the one who discovered AIDS?”

There was no need for any false modesty at this point, and Goddard was very proud of this fact.

“Yes, I am.”

Messick goes back to the lectern to decide what he wants to do next. This is actually going very well, he thinks. And Goddard seems less resistant now. Maybe there's more I should explore with him. It's worth a try, anyway.

"Dr. Goddard, do you mean to tell us that no one had died prior to May of 1981 from AIDS?"

"No, I'm not saying that. There have been extensive reviews of old medical records, and there were, in fact, deaths due to AIDS prior to that. But the syndrome was not recognized. AIDS was not defined yet. Until 1981, no one had stopped to put all the pieces together to realize that we had a dangerous disease on our hands."

"No one, until you."

"Yes. That's right."

He's actually enjoying this, Messick realizes. Maybe it's the TV. Maybe knowing that millions of people all over the world are watching a hero is having its effect. Let's keep going.

"And do you have first-hand knowledge of what happened in the next year or two, with respect to this new disease called AIDS?"

"Doesn't everybody?"

"I'm asking about you, Dr. Goddard, personally."

"Obviously, I was particularly interested and involved in the early development of what we had discovered. And I actually did some research before coming here to testify and wrote down a few statistics." Goddard digs into his pocket and retrieves a piece of paper, then looks at Judge Watts for approval. She nods. "Let's see. 234 died from AIDS in 1981, 853 died in 1982; and by the end of 1983, we were already up to 2304 deaths from AIDS."

This is still okay for Messick. He's taking this one question at a time, but this is still okay. "In your opinion, was this dramatic increase due to an actual increase in the incidence of this new disease, or simply that deaths that had occurred prior to your discovery and were called something else, were now being called 'AIDS'?"

At this point, Crawley stands up as if he's about to object. Messick can't imagine why, and turns around to look at him. But

apparently Crawley changes his mind and sits back down without saying a word. Goddard answers as if nothing had happened.

“There may have been some of that. But in my opinion we had a new, rapidly spreading disease. We definitely had an epidemic on our hands, as far as I was concerned.”

“And you had no idea back then, in the early ‘80s, what was causing this AIDS epidemic?”

“No, but today it’s obvious....”

Messick breaks in quickly. “I’m not ready to talk about ‘today,’ Dr. Goddard. No further questions. Thank you.”

Crawley stands up again and appears as if he’s actually going to speak this time. Messick wonders whether he’s going to break his vow of silence with only the second witness.

“Dr. Goddard...” Crawley pauses, wanting so much to let Goddard continue the sentence he started about his current beliefs, but realizes that he has no basis in direct examination for that line of questions. When Goddard doesn’t volunteer anything more, Crawley looks at the jury and then the witness. “Dr. Goddard, on behalf of the whole world, I would like to thank you for your brilliant discovery of AIDS. Your insightful perception probably saved many thousands of lives. But I have no questions.”

As Crawley sits back down, Judge Watts springs into life. She wants more than anything to get this trial over with. “Mr. Messick, you may call your next witness.”

“Your Honor, I would prefer to wait until tomorrow morning to start with the next series of witnesses.”

The Judge looks disapprovingly at Messick and waves to both attorneys. “Side bar.”

When they arrive, she doesn’t look very pleased. “Mr. Messick?”

“Your Honor, I frankly expected this case to be proceeding a little more slowly. Since the defense is not cross-examining... well, Your Honor, it would be detrimental to my case to start the next section and then have to break it up in the middle.”

Judge Watts is controlling her temper very well, but she wants to control the tempo of this trial a little better. “I understand that things are already quite unusual. I don’t want

them to get any worse, do you both understand? I'm going to let this slide one time, but I want you to know that *I* control when things happen in this courtroom. We work on *my* schedule, not yours. And I want you to start covering more ground each day. I'm going to allow this because it's so early in the trial and because I don't mind letting the jury ease into their new routines. Mr. Crawley?"

"I have no objection, Your Honor."

Judge Watts waves the lawyers away from the side bar and announces to the whole courtroom, "Tomorrow morning. 9 o'clock sharp. This court is in recess."

Chapter Ten

Bill Meadows walks through the door from the garage into his kitchen and is surprised to find Sarah standing at the sink, looking out into the garden, apparently staring at something in her mind. Matthew is gathering up sports equipment and heading out the side door. Grayson is finishing a snack, also hurrying to leave.

"I'll be at Bobby's," Matthew says over his shoulder on the way out.

Sarah comes out of her stupor long enough to yell after him, "Be back in an hour for dinner."

"Can I go ride my bike, Mom?" Grayson tries to ask while chewing one last bite.

"Yes, but wear your helmet, and don't go too far."

Grayson disappears through the garage door.

"And be careful," Sarah tries to add, but Grayson is already gone.

"You're home early." Actually, Bill meant it more as a question than a statement.

"Yes. The trial ended early today." Sarah doesn't look at him or welcome him home with a kiss.

"Where's Peyton?" Bill asks, looking around.

"She's upstairs, studying."

These aren't the upbeat answers that Sarah would usually give to virtually any question he would ask, and Bill knows something's not right. He just doesn't know what it is.

"Sarah, what's going on? Are you upset?"

Sarah doesn't answer immediately because she's not exactly sure what to say. Bill waits patiently, and finally Sarah turns to him. "Got a minute to talk?"

"Sure."

"Wine?"

"You can whine if you need to." Bill always tries to keep things light.

Sarah hardly cracks a smile.

Obviously, she's not in the mood for bad jokes. "Yes, I'll have some wine with you."

Sarah pours them both a glass of wine and leads them into the living room, where she collapses on the sofa while Bill takes the recliner.

"Sure is quiet," Bill volunteers, just to break the silence. "Nice for a change." Then he decides to shut up and give Sarah all the time she needs to start talking. It doesn't take that long.

"I can't figure him out."

When that's all she says, Bill is forced to ask, "Who are we talking about?"

"Messick."

Bill is still in the dark. "Who?"

"The plaintiffs' attorney. His name is Benjamin Messick."

Oh, the court case. I should have known. "What's the problem?"

"I don't know. There's just something strange about him, about the way he's presenting this case."

Bill waits patiently, knowing that eventually Sarah will get to the point. She always does, but sometimes she takes the strangest routes and the longest time. He loved her in spite of it.

"Court was over by three, and I spent the rest of the afternoon doing some research, looking up Messick on the Internet."

Another long pause. Finally Bill feels she must need some help getting this out. "And? You found..."

"He's thirty-eight, single, comes from a very wealthy family..."

Bill laughs. He can't stop himself. "I didn't know you were looking to replace me!"

"Bill, please be serious for a minute."

"Sorry."

"He lives alone, and apparently very modestly. University of Michigan Law School in Ann Arbor. Small practice here in Phoenix. Nothing spectacular. Takes mostly personal injury cases..."

"Sounds like a pretty normal guy to me."

"Yeah, but he lost his best friend to AIDS in 1994, and also a brother..."

"So did you. That's no reason not to trust him."

"I just can't figure him out. I mean, if he were to take a standard 30% commission on this case, and if he gets the award amount he's asking for, that would be 900 billion dollars just for him! And he's going this alone. He's got no backup in the courtroom, no support. He's doing something weird by calling a lot of hostile witnesses, and the judge is already suspicious. He has to know he can't win, that he has no case. I would say he was simply out for the publicity, but he doesn't come across as that sort of person."

"Don't you think 900 billion dollars could be reason enough?" Bill wasn't cynical, but he *was* practical.

"Well, you know he's not going to take that much money, even if he wins, and even if the jury should give him the full award – which is highly doubtful. And from what I can tell, he doesn't need the money."

"Well, maybe he does actually have a case and he sincerely wants to help these people."

Bill knows immediately this was the wrong thing to say. He didn't mean to upset Sarah even more, but he had. Now she wasn't just depressed; she was angry, too.

"Oh, come on, Bill. There's not a chance in hell he can win, and you know it."

"Well, I don't know anything about this case, Sarah," he says, trying to smooth things over a little. "But how did he convince the families of the victims to be part of a class action suit to begin with?"

"I don't know." Sarah seems to drift off in her own thoughts again. "There's a lot I don't know, come to think about it."

"Maybe you should ask the families themselves, if you're so concerned."

Sarah looks directly at Bill for the first time since he's been home and her face brightens with newfound excitement.

"Their names *are* public record, aren't they? Bill, you should have been a lawyer!" She gets up from the sofa and goes and

kisses Bill square on the mouth. “That's exactly what I'll do! - Thank you, Bill – you're brilliant!”

Bill gets up and collects their empty wine glasses, and then heads off for the kitchen.

“That's why you pay me the big bucks, baby....”

Chapter Eleven

Sarah is late arriving and Messick has already begun questioning his first witness of the day.

“...and your work has been written up in the Journal of the American Medical Association, the Journal of Forensic Medicine, the Journal...”

Crawley interrupts. “Once again we would like to save the court's time by stipulating that Dr. Johansen is an expert in her field of forensic pathology.”

“Thank you, Mr. Crawley.” Judge Watts actually smiled at Crawley, apparently thankful again that he would save her so much time. She turns to Messick and simply nods for him to continue. Messick flips over a page on his yellow pad and finds the question he was looking for.

“Dr. Johansen, how do you find the cause of a disease?”

“Basically, you're usually looking for something like a bacterium, a fungus, a virus, a parasite, or some other microbe – some other germ – as the causal agent.”

“If you would, please give the jury a quick example of each.”

“Well, the diseases of salmonella and tuberculosis are both caused by bacteria. Of course, there was the polio virus. A fungus causes Valley Fever...do you want more?”

Messick looks at the jury and decides that they've understood so far. “No, that's fine, thank you.” He pauses briefly. “And how can you tell when something is a causal agent for an infectious disease – when it has *caused* that disease?”

“There are rules. There are criteria any causal agent must meet.”

“What are those rules?”

“They're called ‘Koch's Postulates,’ after Dr. Robert Koch, who was a bacteriologist who lived in the late 1800's. He came up with the rules, and we in the scientific and medical communities have lived by them ever since.”

“And you're saying that in order to be called the cause of an infectious disease, a bacterium, or a fungus, or a virus must conform to Koch's Postulates?”

“Correct.”

“So what are Koch's Postulates?”

Dr. Johansen rearranges herself in the witness chair, thinking that this might take longer than she had hoped.

“There are four of them. Number One is that the microorganism – the bacteria, fungus, or virus – must be found in every case of the disease and detectable in the infected host at every stage of the disease. Number Two...”

Messick breaks in abruptly. “I'm sorry, let me interrupt.” Then he reconsiders. “Well, actually, maybe you *should* just give us all four postulates as simply as you can, and then we'll go back and talk about each one in more detail. Go ahead, Dr. Johansen.”

“Number Two is that the causal agent must be able to be isolated from all other microbes and grown independently in a laboratory culture.” She pauses and looks at the jury, wanting to make sure they were listening and she was being understood. It was a pride thing, and a hangover from when she taught in medical school.

“Number Three is that when healthy animals are infected with pathogens from the pure culture, they must come down with the exact same disease. And Number Four is that the microorganism must be re-isolated from the newly diseased animal and must correspond to the original microorganism in pure culture.”

Messick knew there was no way the jury could have followed all that. He didn't think most people could, especially Postulate Number Four.

“Okay, thank you, Dr. Johansen. So let's go back and take one at a time and make sure we understand. Postulate Number One...”

“Postulate Number One is pretty simple. It requires that something cannot be said to cause a disease unless it can be found in every case of the disease. It makes sense that if you are going to call a bacterium, for example, the cause of tuberculosis,

you must be able to find that same bacterium in every case of tuberculosis.”

“And you have to find the polio virus in every case of polio.” Messick thought he could help out a little. “It wouldn't make any sense to have a case diagnosed as polio and not have the polio virus present, right?”

Dr. Johansen nods in agreement. “Right.”

“That makes perfect sense.” At least it did to Messick, and he hopes it did to the jury as well. “Let's move on to Postulate Number Two.”

“Number Two is more technical. It says that we, as researchers, must be able to find this agent in a diseased body and separate it from any other bacteria or fungi or viruses – in other words, isolate it by itself – and then reproduce it in our laboratories. This proves that the causal agent is alive and active, reproducible, and acting independently from anything else.”

Messick watched the jury the entire time Johansen was speaking, and he didn't see any signs of their getting lost. *That's good. That's really good.*

“All right. So now that you have this suspect isolated and growing in your laboratory where you can test it, what do you do with it?”

“Well, that's Koch's Postulate Number Three, which also makes common sense. It says that if you take this microbe – this germ – and put it into a healthy body, that body must get sick just like the first body.”

“In other words, this microbe must create the same disease when introduced into an otherwise healthy body, which is usually a test animal.”

“That's correct, Mr. Messick. And if this microbe doesn't make another body sick, it couldn't have caused the original disease, now, could it?”

“No, I agree.”

“And Number Four just completes the cycle and says that when you find the causal agent in the newly diseased animal – the one you've just infected – it must match the original microbe exactly – the one you found in the original body. They've got to be the same in both bodies, in other words.”

Messick is very pleased that they hadn't blown the jury away with this. It's not easy for someone who doesn't work with Koch's Postulates every day; but with this background laid down, he was on the verge of his first major score. Just a couple more key points....

"Dr. Johansen, to be called the cause of an infectious disease, how many of Koch's Postulates must be met?"

"All four, of course. All four of them."

"And if an agent – a bacterium, or a fungus, or a virus – fails the test in any one of these four postulates..."

Dr. Johansen didn't wait for Messick to finish his question. "Then it cannot be the cause of the disease. Period."

"No exceptions?"

"No. None. If even *one* of these Postulates is not met, it's back to the drawing board to look for another cause."

"So if the bacteria that we now know causes tuberculosis had not been found in every case of the disease..."

Dr. Johansen interjects, "It could not have been the *cause* of tuberculosis."

"Even just *one* body, Dr. Johansen?"

"Even just *one* body, Mr. Messick."

"And if you injected the virus you thought caused polio into a normal, healthy body, but that body didn't get polio..."

Dr. Johansen understood now that Messick wanted her to finish his sentences for him. "Same thing. That virus could not have been the cause of polio."

"Even just *one* body, Dr. Johansen?"

"Even just *one* body, Mr. Messick."

Messick pauses to find exactly the right wording to get the jury to remember the key points of this testimony.

"Dr. Johansen, I realize that as a scientist, all four of Koch's Postulates are important."

"Absolutely."

"But as a layman, it seems to me that I could summarize them by saying that for something to be the cause of an infectious disease, you have to find it in every case of the disease, and it has to cause the disease every time it's introduced into a healthy body."

“Well, yes, that *is* the crux of it.”

Oh, this is going so well. Let's wrap this up. “Dr. Johansen, is there anything in modern scientific research to suggest that Koch's Postulates need to be changed, updated, or even ignored?”

“I should hope not! Without these criteria, how would we decide what caused a disease and what didn't, and therefore how to treat it? Besides, they make perfect sense, don't they?”

“Yes, they do.” Messick looks directly at the jury. “Yes, they do, Dr. Johansen. Thank you.”

Messick looks across the room at Crawley, sitting at the defense table, as if to ask whether Crawley has changed his mind yet and wants to cross-examine this witness. Crawley turns and begins to confer with a few other members of the defense team. After a couple minutes, Judge Watts gets impatient.

“Mr. Crawley? Do you wish to ask questions of this witness?”

Crawley finishes his whispered conference and stands. “No questions, Your Honor.”

Judge Watts turns back to Messick. “Mr. Messick, you can proceed with your next witness.”

“Thank you, Your Honor. I call Dr. Arnold Peterson.”

Chapter Twelve

“Dr. Peterson, you're familiar with Koch's Postulate Number One, the one that says that you must be able to find the thing you think causes an infectious disease in every case of that disease?”

“Yes, I am, but...”

Messick cuts him off immediately. He wants very specific answers from this hostile witness and nothing else.

“If you would, doctor, please just answer my questions as simply as you can, and not offer any other comments. During the decade from 1987 to 1997, you had a thriving medical practice in San Francisco, is that correct?”

“Yes, it is.”

“And did you have the opportunity in your practice to examine patients diagnosed with AIDS?”

“Yes, I did.”

“About how many?”

“Oh, several thousand, probably.”

“In fact, you were well known at the time for your diagnosis and treatment of AIDS patients, were you not?”

“Yes, I was,” Peterson answered proudly.

“Dr. Peterson, did you look for the virus we now call HIV in all of these AIDS cases that came before you?”

“Well, sort of...” Peterson looks at the Judge, as if begging to continue. Messick doesn't let him.

“And in how many cases did you find the virus we call HIV?”

“I'm trying to tell you that we don't actually look for the HIV...”

Messick addresses Judge Watts directly. “Your Honor, as you know, most of the witnesses I will be calling to present my case have been subpoenaed, rather than volunteering to testify for the plaintiffs. Mr. Crawley was right in his opening statement that many of them are witnesses he might have called, thinking they would support his own case. Until Dr. Peterson, it has not been

necessary to treat them as hostile witnesses, and I hope I do not have to request this very many times. However, I would ask you to instruct this witness to simply answer my questions with a Yes or No, if possible..."

Judge Watts nods her assent. "Dr. Peterson, please refrain from adding your own comments and simply answer Mr. Messick's questions."

"But Your Honor, his questions..."

Judge Watts doesn't like anyone talking back to her, especially a witness. "I don't care, Dr. Peterson. Just answer the questions as best as you can without elaboration."

Peterson sees that he's going nowhere with the Judge. "Yes, Your Honor."

"Okay, Dr. Peterson, let's try this again. In how many of the thousands of cases of AIDS that you've seen have you found the virus we are calling HIV?"

Peterson shakes his head in disbelief that he has to answer this without explaining.

"None."

There was enough of a reaction in the courtroom that Judge Watts had to use her gavel to bring silence. Messick was going to play this for all it was worth.

"Did you say 'none'? Zero?" Messick appears to be taken aback by the answer.

Peterson looks at the Judge again, hoping she would let him say more. But she just gave him a stern look of warning.

"Correct."

"In not one case have you found the virus called HIV?"

Crawley finally jumps to his feet. "Objection. Asked and answered."

Judge Watts, who appears to be somewhat surprised at Peterson's answers as well, is required to agree with Crawley. "Sustained. Move on, Mr. Messick."

That's okay. I got my point across. "But, Dr. Peterson, doesn't Koch's Postulate Number One say that in order for the virus we call HIV to cause AIDS, that virus has to be found in every case of the disease?"

"Yes, but..."

Messick is not interested in the 'but.'

"Dr. Peterson..." and he waits for Peterson to stop looking for help from Judge Watts and turn back around. "So not only have you *not* found HIV in every case of AIDS that you have studied, as required by Koch's Postulate Number One, but you have never found it in even *one* case?"

"Objection again, Your Honor. Asked and answered." Crawley doesn't bother to stand up.

"Sustained. Don't do it again, Mr. Messick."

Messick goes to his table and picks up a stack of papers from his desk.

"Dr. Peterson, it obviously has not been *your* experience, but did you know that there *is* a very small percentage of AIDS cases where the active virus called HIV has, in fact, been found and isolated? Your Honor, plaintiffs' exhibit #41." Messick hands the papers to the Judge.

"Yes, I know. I've been trying to tell you..."

The Judge shoots Dr. Peterson a stern look to shut him up and then continues scanning the exhibit. Messick waits until Judge Watts finishes looking at the exhibit and hands it to Crawley before he asks his next question.

"But, Dr. Peterson, Koch's Postulate Number One doesn't talk about finding the cause in a very small percentage of cases, does it? It says in *every* case. And since the virus called HIV itself has not been found in *every* case of AIDS, in your opinion, does that mean that claiming the virus called HIV is the agent that causes AIDS violates Koch's Postulate Number One?"

"Yes, but..."

Messick has to interrupt once again, because he wants to change course slightly. "Dr. Peterson, just out of curiosity, what *do* you find when you examine the blood of an AIDS victim?"

Dr. Peterson looks so relieved to finally be able to tell his side of the story.

"It's what I've been trying to tell you, Mr. Messick. What we test for are HIV *antibodies*. We find the antibodies to HIV."

"The *antibodies*? Not the virus itself, but the *antibodies*?"

"Yes, and we assume that if the antibodies are there, then the virus was also there."

“You *assume*, Dr. Peterson? You *assume*? Isn’t it incumbent on a scientist – a medical doctor of your stature – isn’t it incumbent on you *not* to *assume* anything, but to prove it? I mean, would you tell a patient that you *assume* they have terminal cancer without proving it first?”

Peterson doesn’t know how to answer that. It was a question like: When did you stop beating your wife?

“And you said you assumed the HIV *was* there. Does that mean that when you test and find HIV antibodies, the virus *itself* isn’t there any more?”

“I’m not an expert in antibody theory, Mr. Messick.”

“Fine, I’ll ask someone else that question.” Messick takes the opportunity to glance at the jury, then decides it’s time to hit his homerun.

“Dr. Peterson, I want to make sure I’m following you in all this. Koch’s Postulate Number One requires you to prove that HIV is present in every case of the disease....” That wasn’t really a question, so Messick doesn’t want or wait for an answer. “But isn’t it true, Dr. Peterson, that you – that the entire medical community – do not test for the virus called HIV at all, but instead test *only* to see whether the patient has the *antibodies* to HIV?”

“Yes! That’s what I’ve been trying to say!”

“So when an announcement is made that ‘so many people’ have been found infected with HIV, the truth is that ‘so many people’ have tested positive for the HIV antibodies, and not for the virus called HIV itself?”

“Yes. Now you get it.”

“In fact, when an announcement is made that ‘so many people’ have been found infected with HIV, isn’t it true that *hardly anyone* has been found with the actual HIV itself?”

“Objection.” Crawley’s on his feet.

“Withdrawn.” Messick pauses. “But, Dr. Peterson, as I understand it, Koch’s Postulate Number One talks about finding the actual virus in every case of the disease, and doesn’t say anything about finding the *antibody* to the virus in every case of the disease. Correct?”

“Yes, but....”

"Then let me ask you this. In those ten years, did you at least find the antibodies to HIV in every case of AIDS that you saw?"

"In every case?"

"Yes, in every case."

"Well, no."

Messick shows his feigned surprise to the jury. "No?"

"No."

"Why not, Dr. Peterson?"

"We didn't test every patient for HIV."

"You didn't test all your AIDS patients for the antibodies to the virus you thought caused their disease? Is that what you're saying?"

"Yes."

"So I guess you must have once again *assumed* someone had this fatal disease and not bothered to try to prove it?"

Peterson just sits there, wishing he had gotten a lawyer to fight this subpoena - anything to escape this embarrassment and humiliation.

"Dr. Peterson, are you still there? Are you going to answer my question?"

"What's the question, Mr. Messick?"

"The question is: are you saying that you diagnosed your patients with the deadly disease called AIDS without testing to see if they had the virus that supposedly caused it?"

"But we weren't required to test every patient for HIV, Mr. Messick, in order to diagnose them with AIDS. The symptoms alone were sufficient."

"How many of your thousands of AIDS cases did you actually test for the HIV antibodies before you told them they were going to die, Dr. Peterson?"

"Objection, inflammatory."

"Sustained. Re-phrase, Mr. Messick."

Messick cooled himself down a bit. He could get very passionate about this fairly easily. "Dr. Peterson, how many of your thousands of AIDS cases did you actually test for the HIV antibodies?"

"I can't answer that for sure, Mr. Messick."

Admit it, you son of a bitch: You guessed at a diagnosis. Well, then, you shouldn't have any trouble with this question. "Take a guess, Dr. Peterson."

"Do you want a number?"

"How about just a percentage – your best guess at a percentage."

Peterson thinks for a minute. "I'd say, maybe 50%."

"Half?"

"Well, maybe a little less than half."

"So with more than half your patients, you simply *assumed* they had this fatal disease without finding out if they had the cause in their bodies, correct?"

"Yes, Mr. Messick, that's correct. As I said, having the symptoms of AIDS was enough to make the diagnosis."

Messick looks at his notes to make sure he's covered everything. "Dr. Peterson, you said you were not an expert witness in antibody theory?"

"No, I'm not."

"Then Dr. Peterson, I'll save those questions for someone who is. And I will end your questions here. But let me see if I have this straight. Correct me if I'm wrong..." Messick leans on the jury rail with one hand and looks down the two rows of jurors, trying to make eye contact with each one. "You and all other AIDS specialists don't test all your patients for HIV before diagnosing them with AIDS, and when you *do* test them, you almost never find the virus called HIV in *any* case of AIDS, as Koch's Postulate Number One requires, but you find the HIV antibodies instead..."

Crawley is on his feet again, but the Judge beats him to it.

"Mr. Messick, I warned you."

"I know Your Honor, asked and answered. No further questions of this witness."

* * *

"...it simply means that the body has successfully defended itself against a foreign invader and is prepared even better for any future attacks by that same invader."

Messick has called Dr. William Knowles to the stand, who has been accepted as an expert witness in antibody theory.

"In other words, Dr. Knowles, the body has won. The attacker is defeated and destroyed."

Knowles nods at the same time he says, "Correct. If an antibody is present, the disease agent itself will not be present."

"The causal agent is no longer causing damage."

Knowles nods again. "Correct."

"Dr. Knowles, did you hear Dr. Peterson just testify that he personally has never found a trace of the virus called HIV in any of the AIDS cases he has studied, but instead has found the antibodies to HIV?"

"Yes, I heard that."

"What does this mean to you?"

"It means that the body, at some time, had successfully neutralized the HIV and developed antibodies against it. That's all."

It's nice to have a witness who's not so hostile on the stand. Messick seems to be enjoying this.

"So to have the antibodies to the virus called HIV, that virus had to have been defeated, since you can't find any trace of the virus itself."

"Yes."

"Dr. Knowles, if an invader has been defeated and antibodies are present, will the patient still be sick and dying, or are they well, or at least recovering nicely?"

"For the immune system to have gotten as far as producing antibodies, they will be recovering, or have recovered."

"So it is highly unusual to find antibodies to HIV, such as we find in AIDS victims, and have those people dying right and left?"

"Well, let me put it this way...people die from a disease – virtually any disease – when their immune systems have not been able to protect them from an invader. Either their T4 cells didn't work properly to kick in the immune response, or the Killer T cells couldn't kill the organism, and they never got to the point of producing antibodies for the future. So to find HIV antibodies in a patient can only mean that they were produced prior to the

person getting sick with AIDS, which means that the HIV itself could not be the cause of AIDS.”

There’s a stir in the courtroom in reaction to the first real hard piece of evidence and logic challenging the role of HIV in AIDS. It’s not enough of a stir to cause Judge Watts to raise her gavel, and Messick waits a minute to let it sink in and have its full effect on the jury.

“Dr. Knowles, let’s go back through what you just said and pick it apart, please. Tell us again...if you have developed antibodies against an invader, what does that say about your immune system?”

“It says that the immune system has to be working properly – that the patient’s T4, or ‘Helper’ cells were of sufficient numbers and efficacy that they kicked in the immune response and activated the Killer T cells, which were themselves successful in taking care of the invader. Only then are the antibodies produced to establish resistance to the next time that same invader might appear. If it happened any other way, or in any other order, the body would be wasting its time and energy and efforts to produce antibodies before it even knew it could survive the current attack. And the body doesn’t work that way. It’s the most efficient machine ever built.”

Messick wants somehow to find a way to repeat all this three times so he is certain the jury gets it, without Crawley lodging his “asked-and-answered” objection.

“Let me see if I can understand, Dr. Knowles... Something attacks the human body. If the immune system is working correctly, some of those Helper T cells we learned about are going to activate the body’s defense system and send out the Killer T cells to destroy the invader. If the Killer T cells are successful, the body is then going to create antibodies to this invader to help in any future attack. But all this depends on a well-functioning immune system, and it has to happen in that order. Have I got that right?”

“Yes, that’s right.”

Wow, I made it through and Crawley never moved! Let’s see if I can do it again.

“And in the case of HIV, if the body has gone through this process to the point where it has developed the antibodies to the virus called HIV, then the immune system has to be working at least relatively well.”

“Correct.”

“But I thought, Dr. Knowles, that AIDS was an immune deficiency disease – a disease where the immune system was *not* working well at all? How could a very sick immune system create antibodies for a virus called HIV that was supposedly destroying it? Can you explain the logic in that?”

“No, I can’t.”

“Wouldn’t it make more logical sense, doctor, that the body may have encountered this virus called HIV some *other* time in the past – not associated in any way with AIDS – killed off the active HIV, recovered nicely, and then developed these antibodies that we later find?”

“That’s the only explanation that makes sense to me.”

“But, Dr. Knowles, that would mean that the virus we are calling HIV couldn’t have anything to do with causing AIDS!”

“That’s correct. It couldn’t.”

Messick can see the shock on the faces of most of the jury. Some were still acting like this point wasn’t that important. *They must not have understood as well as I thought. That’s okay. I’ll get them later*, Messick assures himself. *There’s a lot more of this trial yet to come.*

“One last question, Dr. Knowles. Does it say anywhere in Koch’s Postulate Number One that it’s acceptable to find the *antibodies* of the agent suspected of causing the disease and not the agent itself?”

“No, it doesn’t.”

“Thank you, Doctor Knowles.”

Messick looks at Crawley, who doesn’t move or return his gaze. Instead Crawley turns to the row of seats behind him to confer with an associate.

Sarah feels that same nausea overcoming her, like yesterday. She wonders what she ate, or maybe didn’t eat that she should have. She whispers, “Excuse me,” as she walks in front of each person down the row and out the door to the ladies’ room.

Chapter Thirteen

By the time Sarah returns, Don Harrison from the Centers for Disease Control and Prevention is answering Messick's first question.

"The CDC has been keeping statistics on AIDS since 1981, when the disease first appeared."

It is still called the *CDC*, whose name was originally the 'Communicable Disease Center.' Then, in 1970, it became the 'Center for Disease Control,' and finally in 1992 the 'Centers for Disease Control and Prevention.' In making the change, Congress apparently knew that saying 'CDCP' would never catch on and mandated that the acronym stay the same.

"Mr. Harrison, I'm not going to ask you for all the valuable information you have at your disposal from the CDC at this time. I am going to ask your permission, and that of Your Honor, to ask a very few specific questions directly concerning the issue at hand, and then ask you to come back later – maybe several times more – to offer more data and statistics when those subjects arise? Is this all right with you?"

"It's okay with me."

"Your Honor?"

Judge Watts is very cautious. "For the time being. Mr. Crawley?"

"No objection, Your Honor."

The Judge turns back to Messick. "Proceed."

"Mr. Harrison, have you heard the previous witnesses discussing Koch's Postulate Number One?"

"I heard them, yes."

"I see you brought a lot of reports with you today, and I'm glad about that. So tell me, in all of the CDC's reports, are you aware whether there has been any mention of a diagnosis of AIDS in a patient that did *not* have the virus called HIV?"

"Well, I want to be clear, we don't test every AIDS patient for HIV."

“I know that. I’ll get to that in a minute. Right now, I want to know whether there has been any mention of a diagnosis of AIDS in a patient who *was* tested that did *not* have the virus called HIV?”

“Yes, there have been some cases like that reported.”

“And how about AIDS patients who were tested that did not even have the antibodies to HIV?”

“Well, that’s what I meant by my first answer. We don’t test for the actual HIV, Mr. Messick. We only test for the HIV antibodies.”

“I understand, Mr. Harrison. So tell me, how many cases of AIDS are on record where no HIV and no HIV antibodies were found?”

Harrison spends quite a bit of time combing through the statistics he brought with him, looking for the answer.

“Can’t find it, Mr. Harrison?”

“Give me another minute, please, because I’m sure it must be here.”

“I will.” He turns and looks at the jury while still addressing Harrison. “By the way, I’ve had the same trouble. Back around 1990 it was fairly easy to get this answer. But I guess you guys at the CDC have buried this information as deep as you could since then.”

Harrison finally stops looking. “I know I’ve seen that statistic before. Apparently I didn’t bring the right charts with me today, but I think it’s somewhere around 4,000 cases.”

Messick had been pacing up and down in front of the jury while Harrison was searching for the answer. Now he whips around to face Harrison and acts completely surprised.

“4,000 cases?”

“Actually, a little over 4,000 cases, if I recall correctly.”

“Do you mean to tell this court that there are more than 4,000 cases of AIDS where the patient was HIV-negative – not that they weren’t tested, but that they *were* tested and found *not* to have the virus called HIV *or* its antibodies?”

“Yes, that’s correct.”

Messick goes to his table and picks up a stack of papers.

“Yes, Mr. Harrison, I have that record here.” Messick smiles at Harrison and can’t resist gloating a little. “You may want to get a copy of this when we’re finished.” Then he looks through the papers for a minute. “And you are correct, Mr. Harrison; it’s 4,621 cases of AIDS who were HIV-negative – no HIV and no HIV antibodies. But they still had AIDS according to their medical diagnosis, Mr. Harrison?”

“Yes.”

“Wow!” Messick looks at the jury like he doesn’t understand. Of course, he hopes *they* understand from the previous testimony that these two things – AIDS but *no* HIV – cannot co-exist together if, in fact, HIV caused AIDS. Now he’s ready for the next step.

“Mr. Harrison, you mentioned that not all AIDS patients were tested for HIV. Let’s go back to the late 1980’s, as AIDS was reaching epidemic proportions. Can you tell us how many cases of AIDS were actually tested for HIV, let’s say in the first five years, up until 1989? In other words, how many confirmed AIDS diagnoses got an HIV test?”

Harrison consults his notes but comes up empty-handed again. “I don’t have those numbers nationwide.”

“Well, then, let’s just say in San Francisco, one of the hotbeds of AIDS. Do you have the figures for San Francisco of how many AIDS cases were tested for the presence of HIV?”

Harrison thumbs through some more papers and finally finds what he’s looking for.

“Yes, here it is. Seven percent.”

Once again Messick pretends like he cannot believe the answer.

“Only seven percent? Looks like Dr. Peterson was doing well to test almost fifty percent of his patients!” He pauses, and then, as if he had an afterthought, “How about another hotspot – New York?”

“Same time frame, Mr. Messick?”

“Yes.”

“About the same. Seven percent.”

“So in the two busiest AIDS cities in the late 1980’s, only seven percent of diagnosed AIDS cases were tested for HIV?”

“Yes.”

“Just to be conservative, let’s say it was ten percent instead, okay? Let’s give you a little margin of error.”

Harrison doesn’t answer as Messick returns to the lectern, and with more flair than necessary he takes out a pen, flips to a clean sheet on his yellow pad and starts writing something.

“And what percentage of all AIDS cases nationally occurred in San Francisco and New York during that time?”

Once again Harrison consults his statistics book.

“About a third of all cases.”

Messick starts doing some math with his pen on the paper. Obviously, he had done this math before – many times before – but it gives time for the jury to do the math themselves. All of a sudden, Messick’s head jerks back as he presumably sees the answer his scratch marks produced. He takes a deep breath and prepares to deliver his blow to Mr. Harrison.

“So we know that at least 4,600 AIDS cases *never* had the HIV or its antibodies, but we only tested roughly ten percent of the AIDS victims for HIV during those years, in two cities that represented one-third of the AIDS population.” Messick turns to the jury to try to keep things in perspective. “I realize this is beginning to sound like one of those high school math questions where a train leaves Boston traveling 90 miles an hour....” Many of the members of the jury chuckle and relax a little, and then Messick turns back to the witness. “But, Mr. Harrison, if we had tested one hundred percent of all AIDS cases, do you have any idea how many more cases might have also been HIV-negative, with no virus and no antibodies, based on the same ratios?”

“I have no idea.”

“Well, let’s see if we can do the math. Do you know how many of the 4,600 cases that were HIV-negative occurred in San Francisco and New York?”

Harrison looks at one page of his notes, and then another, and then a third.

“No, sir, I don’t have that information.”

“Too bad, because we can’t do this completely accurately without it. But I think it’s safe to assume that if San Francisco and New York represented one-third of all AIDS cases in this

country, they probably also had about one-third of the 4600 HIV-negative cases as well, or a little over 1500 without HIV. But let's be generous again and say it's only a thousand. We've agreed that we only tested ten percent of all AIDS cases in those two cities. If we had tested one hundred percent just in San Francisco and New York, we could easily end up with over 10,000 AIDS cases with no HIV and no HIV antibodies. Correct?"

"I suppose that's possible. I don't know. As I said, I haven't done the math."

Messick hands Harrison his yellow pad and says, "Take a look."

Harrison glances at the scribbled math and hands the pad back to Messick, who asks, "Would you like me to give you a pen and the time to do it yourself, Mr. Harrison?"

"No, Mr. Messick. I'll take your word for it."

"10,000 AIDS cases with no HIV! Wow! And we were just dealing with the statistics *prior* to 1990, which means there could be thousands more AIDS cases with no HIV and no HIV antibodies since then, doesn't it, Mr. Harrison?"

"It's possible, yes," Harrison muttered, although he wished to God it weren't.

Messick walks to his table and finds yet another report that he holds up toward Harrison. "Mr. Harrison, are you familiar with Koch's Postulate Number One?"

"I'm not an expert..." he starts, hoping not to have to answer the next question.

"I'm not asking for an expert opinion from you. I'm simply asking, are you familiar with Koch's Postulate Number One?"

"Somewhat."

"And are you familiar with the National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health?"

"Of course."

"This is a report from them, first written in November 1994 and updated as recently as 2003, called *The Evidence That HIV Causes AIDS*." Messick opens the report and finds the page he wants. "Let me read you two section headings. The first is, and I

quote, 'HIV can be detected in virtually everyone with AIDS,' unquote. The second is, quote, 'Nearly everyone with AIDS has antibodies to HIV,' unquote. *Virtually* everyone, *nearly* everyone. And still they have the audacity to say, and again I quote, 'HIV fulfills Koch's Postulates as the cause of AIDS.'" He puts the report back down on his desk and goes and stands at the jury rail without looking directly at any juror. "Mr. Harrison, does Koch's Postulate Number One say that you have to find the cause of an infectious disease in *virtually* every case, or *nearly* every case?"

"No, sir, at least not to my knowledge it doesn't."

"Then please tell me, Mr. Harrison, What is your conclusion when we know for a fact that, even prior to 1990, there were 4,621 cases, and probably more than 10,000 cases, with no trace of the virus called HIV and no trace of HIV antibodies, when Koch's Postulate Number One requires HIV to be present in *every* case of AIDS?"

"As I said, I'm no expert..."

Before Harrison could finish, Crawley is on his feet.

"Objection!"

"Yes, Mr. Crawley?"

Crawley is just standing there waiting for Judge Watts to automatically sustain his objection without requiring an explanation. He tries not to show his surprise when she doesn't, and quickly comes up with the best he can think of at the time.

"This witness has not been certified as an expert in this field. Mr. Messick is asking for an expert conclusion."

"Your Honor, on the contrary. I'm not asking for Mr. Harrison's expert opinion. I'm asking him, as someone whose profession is dealing with the statistics of the causes of disease, to comment on the logic in this case."

As Judge Watts hesitates, Crawley doesn't argue, fully expecting her to eventually rule in his favor, as usual. He is taken aback to hear her say instead, "I'm going to allow the witness to answer the question."

Crawley is stunned, and Harrison is more than disappointed. He's scared. He can't lie on the witness stand, but he's not sure he'll have a job waiting for him at the CDC if he tells the truth.

"I would have to say that...it would be difficult to say that the statistics supported Koch's Postulate."

"No further questions. But as we discussed, I reserve the right to recall this witness at a later time."

Judge Watts looks at Crawley, who has turned to confer with his team again.

"Mr. Crawley?"

"One moment, Your Honor," without turning around.

"Mr. Crawley?" Judge Watts is clearly becoming impatient.

Crawley finally stands up and faces the bench. "No questions, Your Honor."

Judge Watts looks at Crawley like he's making a big mistake.

"All right. It's lunchtime. Back at two p.m." and she gavels the morning session into recess.

* * *

Sarah finally makes it out of the courtroom in time to join the rest of the media, who are crowded around Crawley and his entire team, including Dr. Robert Gallo, the main defendant, at the usual bank of microphones on the steps leading down to the atrium. It's Crawley, of course, who's doing all the talking.

"...and this whole thing about Koch's Postulates is just another waste of time. This question is not news, people. Dr. Gallo here, and others, have been quite clear over the past two decades that Koch's Postulates are outdated, irrelevant to modern medical research, have no relationship to the disease of AIDS, or to HIV, and have no bearing on this case. I think Dr. Gallo even explained that in detail in his book."

"Do you admit that HIV doesn't meet the requirements of Koch's Postulate Number One?" It was a female reporter standing not too far away from Sarah.

"It doesn't matter that it doesn't meet Postulate Number One, but it's Koch's Postulates that are at fault, not HIV. Remember that Dr. Koch came up with these postulates more than a hundred years ago. If we haven't surpassed his thinking in the last one hundred years, something's very wrong. The fact is that modern

medicine has other criteria more appropriate to today's knowledge. Koch's Postulates may have been correct and useful for the last century, but not for this century.”

“What are those new criteria, and does HIV meet them?” The question came from a young man in the back and on the other side, and Sarah could just barely make out what he was asking.

“This is not the time or place to educate you about medical research, son.” Crawley wasn’t going to get anywhere close to trying to answer that now – at least not until Dr. Gallo explained it to him.

“It looked like you were considering cross-examining Mr. Harrison?” Rick Mann from GNN had out-shouted everyone else this time.

“Not for a second. As I said in my opening, this is a frivolous case that we won't give merit to with our participation, except when absolutely necessary. And nothing that Mr. Messick or his witnesses have presented thus far has led me to question that decision.”

“How do you plan on getting the jury to understand your position on Koch's Postulates if you won't present your case?” Sarah is surprised to hear herself challenging Crawley. She is also surprised at the intense anger that was building inside her because no one was standing up to Messick and his hair-brained scheme, whatever it was.

“The opportunity will arise, miss. Now, if you'll excuse me, I need some lunch.”

As the entourage disappears into their limos, Sarah realizes that the nausea has gotten worse. She decides not to eat, and instead to use her lunch hour to follow up on Bill’s idea. She heads for the Clerk’s office to get a list of the names of the plaintiffs.

Chapter Fourteen

“I’d like to call Mr. Kato Yamashuri.”

Crawley is on his feet. In fact, he had never sat down after the Judge arrived for the afternoon session.

“Your Honor, once again I rise to try to save this court hours of useless testimony by the plaintiffs. The defense will stipulate that HIV does not meet the criteria of Koch's Postulates.” He looks at Messick standing at the lectern. “Again, counselor, I assume that is where you're going with this witness, and perhaps many countless more witnesses after that.”

Crawley leaves his position behind the defense table and walks toward the jury.

“Koch's Postulates are archaic, completely out of date, and useless in today's technology. The fact that HIV does not meet Koch's Postulates is irrelevant and immaterial to this case.”

Judge Watts interrupts him quickly.

“What are you doing, Mr. Crawley? You know that this is not the time to try to make your case with the jury.”

Messick is pleased that Crawley got called on the carpet and was not allowed to continue, but is also a little concerned there may be other attempts to derail his presentation. It's very important that he be allowed to follow his game plan. He decides to ask the Judge for help.

“Your Honor, may we approach?”

Judge Watts nods and waves both attorneys to the sidebar.

“Your Honor, it's very kind of Mr. Crawley to acknowledge that the virus called HIV does not qualify as the cause of AIDS under Koch's Postulate Number One. However, there are three other postulates, and there is more to the testimony of my next witness. In fact, I have three witnesses whose testimony will also lay the groundwork for other witnesses later; and since Mr. Crawley is so hell-bent on not wasting time, I promise I will finish with all three in about an hour and a half.”

“Mr. Messick, it's after two p.m. on a Friday afternoon. I will give you until three-thirty. And Mr. Crawley, I suggest you might

want to cross-examine one or two of these witnesses if you want to make any points with the jury, because I'm sure as hell not going to let you get away with grandstanding again."

"Thank you, Your Honor." As the lawyers return to their respective tables, Messick once again calls Mr. Kato Yamashuri to the witness stand.

Sarah looks over the copy of the list of plaintiffs she got from the Clerk's office, while Messick goes through the normal procedure required with every new witness. She's surprised and pleased to find that one of the plaintiffs, a Mr. and Mrs. Hamilton Geddes, lives close by in Prescott, Arizona. She makes a note to pay them a visit as soon as possible. After all, it's just a two-hour drive.

"...and what was your occupation, Mr. Yamashuri, during the year 1983?"

"I worked for the National Cancer Institute as a research technician."

"You worked for Dr. Gallo?" Messick points to the defendant's table where Gallo is sitting.

"Yes."

"Doing what?"

"At that particular time, I was working on the project to reproduce the HIV in our lab."

"Only it wasn't called HIV at that time, was it?"

"No, it wasn't. To be honest, it had three different names at different times. It was called 'LAV,' 'MOV,' and 'HTLV-3' or '3B' before it became known as 'HIV.'"

"Why 'LAV?' What does that stand for?"

"It stands for 'lymphadenopathy-associated virus,' and the LAV virus itself was sent to us by a Dr. Louis Moreau from France because he..."

"Mr. Yamashuri..." Messick wants to hold off on that testimony right now and is sorry he asked the question. But Yamashuri had opened the door and Messick felt he better have those terms explained to the jury right now. *On second thought, better not*, he decides. "I'd like to wait for Dr. Moreau himself to tell us that story, if you don't mind. But the point is that you were

working on this LAV virus, later to be called HIV, trying to grow it in your lab?"

"Correct."

"You're familiar with Koch's Postulates, Mr. Yamashuri?"

"Of course."

"Were you working on a particular postulate with the LAV virus?"

"Yes, Postulate Number Two."

"...where you have to be able to isolate the microbe that is supposedly causing a disease and reproduce it in your own lab?"

"Yes."

"Why were you doing that?"

"I don't understand your question. I thought I already answered that. Koch's Postulate Number Two...."

"The question is, if Dr. Gallo believed that Koch's Postulates are archaic and useless and should be ignored, why would he have you waste your time trying to grow the virus to prove Postulate Number Two?"

Yamashuri looks very confused. "Today was the first I ever heard of Dr. Gallo not believing in Koch's Postulates. I can tell you that he definitely believed in them when I was working for him, because my entire job was based on them, and as far as I know, our entire lab followed them, or tried to."

"So you, at least, thought you were trying to prove whether this virus you were working with was in fact the cause of AIDS by proving Postulate Number Two and growing it in your lab?"

"Yes."

"So, at least at that time, *you* believed in Koch's Postulates as a valid set of criteria to determine whether or not you had the causal agent of a disease?"

"Yes. And I still do."

"Objection."

"Sustained. Jury will disregard the last part of that answer."

"And were you working under the assumption that the rest of your team, and in fact the entire medical research community, were of the same belief?"

"Yes."

Judge Watts is very conscious of the time. “We get your point, Mr. Messick.”

“Thank you, Your Honor. Mr. Yamashuri, at that time, did you ever hear anyone in your department, or in the National Cancer Institute, or for that matter the National Institutes of Health, make any reference to their belief that Koch's Postulates were irrelevant in determining the cause of an infectious disease?”

Simultaneously with Yamashuri saying, “No,” Judge Watts insists, “Move on, Mr. Messick.” She knew Messick was trying to counter Crawley’s outburst to the jury, and she wanted it stopped.

“Yes, Your Honor.” Messick agrees with her – enough is enough. “Mr. Yamashuri, were you in fact successful in reproducing the virus we now call HIV in your lab?”

“Yes, I was.”

“Easily? From the start?”

Yamashuri hesitates, not knowing how to answer that question. Messick didn’t expect that particular question to be much of a problem.

“Mr. Yamashuri?”

“There was some controversy about that, Mr. Messick.”

What did I miss? Messick tries to decide how to approach this, since he doesn’t know what’s coming.

“What controversy?”

“Well...” Yamashuri looks over at Dr. Gallo at the defense table. “Yes, it was easy to grow the virus from the start.”

This is news to Messick, but not really that critical.

“I thought you had some trouble and that it took you a long time, Mr. Yamashuri.”

“That’s what Dr. Gallo wanted everyone to believe. When Dr. Pavlovich originally wrote his report, he said that we had no problem growing the virus. Dr. Gallo made him change his report to make it look like we had a lot of trouble.”

Oohhhh! Now something else makes a lot of sense. I’ll get to that in a minute.

“How long did you tell the rest of the world that it took you to grow the virus?”

“About eight months.”

“I’m going to save my other questions about this controversy for another witness. So let me ask you this, Mr. Yamashuri, did it require a very special culture to make HIV grow, rather than any standard culture you had used in all previous testing?” Before Yamashuri had a chance to answer, Messick realizes he skipped a step. “Sorry, Mr. Yamashuri. Maybe we should define the word ‘culture’ first.”

“Oh... well, a culture is a medium...,” Yamashuri is talking directly to the jury, searching for the simplest possible explanation, “...a place, usually in something like a small petri dish...” he holds one hand up, cupped as if he were presenting a shallow glass container, “...that serves a function almost like a food where we grow things under controlled circumstances for various kinds of experiments.”

“Good. Thank you. And now, let me ask again. Did you need a very special culture to grow the HIV?”

“Yes.”

Messick knew that Yamashuri *didn’t* know that it was a loaded question, about to get him in a lot of trouble.

“What is that culture called?”

“H9.”

“H9? Mr. Yamashuri, what is HUT78?”

Yamashuri squirms a bit in the witness chair. “That’s another kind of culture.”

“Isn’t it true, Mr. Yamashuri, that H9 is simply the HUT78 culture, essentially stolen by Dr. Gallo and renamed to prevent anyone else from having access to this culture without his permission?”

“Objection. This is pure speculation. Mr. Messick has not offered any proof for this allegation.”

“Your Honor, I intend to offer proof, but not with this witness.”

“Then bring it up later when you can back it up with testimony, Mr. Messick. You know better than that.”

“Yes, Your Honor. I withdraw the question.” He turns back to the witness. “So, Mr. Yamashuri, you say that you were able to grow the HIV in this HUT78, I’m sorry, H9 culture.”

“Yes.”

“And in the process, did you ask for more samples of the virus to be sent from France?”

“Yes.”

“Why? If you were able to grow it in your own lab fairly easily right from the beginning, why did you ask France for more?”

Yamashuri certainly would not have agreed to testify if he had known Messick would ask about these things. He thought that Messick just wanted to know about growing HIV in the lab. *Well, might as well tell the truth. It's too late for anything else.*

“It was part of the charade. It made it look like we were having trouble and needed more sample. It also delayed anyone else from asking us for samples to run their own tests.”

“I understand now. Thank you.”

Messick consults his legal pad. “Mr. Yamashuri, what was this H9 culture made of?”

“Healthy T cells.”

“Help me out, Mr. Yamashuri, because I get very confused at this point. This H9 culture, this is a culture of healthy T cells, you said?”

“Yes, it is.”

“And you grew the virus called HIV in this healthy T-cell culture? In fact, Mr. Yamashuri, you were able to prove that this virus, later called HIV, actually did meet Koch's Postulate Number Two, correct?”

Yamashuri relaxes a little, grateful to be back on the right topic and, in fact, applauded for his work.

“Yes. Correct.”

“You must have felt very proud.”

With more than a modicum of humility, Yamashuri said, “Yes, I did. I did my job. That always feels good.”

“But, Mr. Yamashuri, what I don't understand is this: If the virus called HIV destroys the immune system of a healthy human being, how come it didn't destroy the T-cell culture itself?”

Yamashuri is shaken to the core, first, because his contribution to AIDS research is suddenly dubious, and secondly because he never asked that question himself. He was so focused

on getting the HIV to grow that he lost his perspective and his objectivity as a scientist, and missed the most obvious question of all. Now all he can do is sit there, speechless. After a few seconds of silence, Messick continues.

“How was this potent virus able to grow side by side with the very T cells it had to kill if indeed it caused AIDS?”

Still no answer.

“Mr. Yamashuri, let me ask this question another way. If this virus called HIV causes AIDS, this virus must totally destroy the T-cells it finds in the human immune system. How could it possibly *not* have killed the T cells in the H9 culture?”

Crawley has had enough. “Objection. Badgering....”

Before Judge Watts can rule on the objection, Messick speaks up.

“I’ll withdraw the question, Your Honor. Actually, Mr. Yamashuri, I don’t think you, or anyone else, can ever answer that question, and I have no further questions of this witness.”

Judge Watts doesn’t wait for Messick to sit down.

“Mr. Crawley?” It was clear she expected him to take her advice and cross-examine this witness.

Realizing he’d better ask *something* to appease the Judge, Crawley moves to the lectern.

“Mr. Yamashuri, you did in fact get HIV to grow and therefore you fulfilled Koch's Postulate Number Two?”

“Yes. I said that I did.”

“I have no further questions, Your Honor.”

Chapter Fifteen

Please tell the court what you were doing with these chimpanzees.”

“We were injecting them with live HIV.”

“Why?”

“To see if they developed AIDS.”

“Why?”

“To see whether HIV was the cause of AIDS.”

“Oh, you're talking about Koch's Postulate Number Three, that in order for something to be called the causal agent, it has to produce the same disease if injected into a healthy body.”

“Yes.”

One by one, Messick was producing testimony that the virus called HIV could not qualify as the cause of AIDS under the conditions required by Koch's Postulates. So far, he had successfully made it to Postulate Number Three, and he was feeling good about the progress – so good that he thought he'd take another shot at Crawley.

“So you believed in Koch's Postulates then?”

“I still do.”

“Objection, irrelevant.”

“Sustained. Don't go there again, Mr. Messick.”

Oh, well, it was worth a try.

“Yes, Your Honor. Dr. Spalding, why were you using chimpanzees in your experiments?”

“They are the closest in DNA to a human being.”

“And, obviously, you're not going to inject live HIV into a human being to see if it will kill them, just to satisfy Koch's Postulate Number Three, correct?”

“Obviously.”

“So you use chimpanzees instead?”

“Correct. That's pretty standard procedure, Mr. Messick.”

“Please tell the court exactly what you would do.”

“We would take the HIV that was being grown in cultures, purify it to full strength, and inject it into the chimps.”

“Did it work?”

“In what sense?”

“Did the chimpanzees get sick? Did they develop AIDS?”

“No.”

“Any of them?”

“No.”

Messick really wants the jury to hear this. If they didn’t understand how HIV violates Koch’s Postulates One and Two, they’re bound to get this one. And it’s worth repeating, even if I risk getting another objection.

“None of them got sick?”

“One of them developed some AIDS-like symptoms, but it was not AIDS per se, and it was only one.”

Crawley must not have been listening. Messick glances over and, sure enough, Crawley was whispering something to Dr. Gallo.

“Did you check their immune systems, Dr. Spalding?”

“Yes.”

“Their immune systems were not destroyed by this potent HIV that was supposedly killing so many humans?”

“No.”

“For how long?”

“What do you mean?”

“Did any of them *ever* get AIDS?”

“I already told you, no. Never.”

“Ever?”

“Your Honor, how many times...” Crawley is obviously listening again.

“Asked and answered, Mr. Messick. Move on.”

“But, Your Honor, some of these answers are so hard to believe in light of what the defendants have been telling us for the last thirty years. I’m repeating solely out of astonishment...”

Judge Watts gives Messick a warning look for grandstanding, and he puts up his hands to indicate his compliance.

“Dr. Spalding, do you know of other people who were doing the same experiments?”

“Yes. There were about 150 lab chimps involved in similar projects.”

Messick makes his ceremonial trip to the table to pick up a number of reports and hands them to the witness.

“Dr. Spalding, I am going to show you several different reports published in several different scientific publications, labeled plaintiffs' exhibits #63 through #65. Do you recognize any of them?”

“Yes, they are the published reports from me and other colleagues about our attempts to infect chimpanzees with HIV.”

Spalding hands the reports back to Messick, who hands them on to the Judge.

“Dr. Spalding, did anyone, anywhere, at any time, have even a single chimpanzee that developed AIDS from these experiments?”

“No.”

“Dr. Spalding, if you took these same chimpanzees and injected the tuberculosis bacterium into them, what would happen?”

“They'd get tuberculosis.”

“All of them?”

“Yes.”

“And if you took the polio virus and injected it into these same chimpanzees?”

“They would all get polio.”

“Without exception?”

“Yes.”

“And isn't that what Koch's Postulate Number Three requires for something to qualify as a causal agent – that it creates the disease 100% of the time if injected into an otherwise healthy body?”

“Yes.”

“And yet, not only did this virus called HIV *not* create AIDS in 100% of the chimpanzees, it didn't create AIDS in a single one? Is that what you're saying?”

“That is correct.”

Chapter Sixteen

“H-A-N-O-V-E-R, and I work for the Centers for Disease Control and Prevention.”

“And Dr. Hanover, please explain exactly what your job entails.”

“My job is to verify that the correct procedures have been done by the submitting laboratory and that the suspect microbe – be it a bacterium or virus or fungus or parasite – has passed all the tests and qualifies to be called the causal agent of an infectious disease.”

“Dr. Hanover, were you on that job in 1984 when the virus now called HIV was labeled as the cause of AIDS?”

It was a stupid question, actually. Dr. Hanover, a striking woman in her early thirties, couldn’t possibly have even been in high school in 1984.

“No. My job is relatively new, and was probably created as a result of this whole AIDS-HIV debacle. But I sure wish I *had* been there.”

“Why is that?”

“Because I would never have let it happen.”

“Why not?”

“Because HIV does not meet the test of Koch's Postulates and therefore cannot be the cause of AIDS, pure and simple.”

“Are you sure of that?”

“Mr. Messick, I know my job, and I don't care what anyone says,” she states, looking directly at Dr. Gallo. “HIV cannot cause AIDS.”

“Why not?”

“First of all, the most striking thing to me is that no one has ever demonstrated HIV infection, even in a single case, using the accepted medical definition of the word. ‘Infection’ implies a large amount of virus, or microbe, and a high level of biochemical activity. If there were HIV ‘infection,’ there would be what's known as ‘viremia.’ The blood would be teeming with whole, infectious viruses – hundreds of thousands to millions of

them in every milliliter of blood. But with HIV, any attempts to purify it and then photograph it using standard techniques have been total failures.”

Messick looks at the defense table. “Perhaps Dr. Gallo wants to change the definition of ‘infection’ at the same time he changes Koch's Postulates.”

Crawley is incensed. “Ob-jec-tion!”

“Sustained. The jury will disregard Mr. Messick's last comment.”

“Dr. Hanover, let's get back to where we were. You were adamant that HIV cannot be the cause of AIDS.”

“Yes. In addition to what I just said, HIV fails to meet three out of four of Koch's Postulates, and for something to be deemed a causal agent, it must meet all four.”

“Can you run through the failures very briefly for us?”

“Well, HIV is not found in every case of AIDS, nor in every stage of the disease. It therefore flunks Koch's Postulate Number One. It does not create AIDS if injected into another healthy body, and therefore flunks Postulate Number Three. And since it can't reproduce AIDS in Number Three, Postulate Number Four is impossible to perform. A flunk there, too.”

“And what about Postulate Number Two?”

“Technically, it passes Number Two, since it *can* be reproduced in a laboratory culture. But the fact that it grows side by side with healthy T cells – the very cells this virus is supposed to destroy with a vengeance – is very strange, I must say.”

“Dr. Hanover, did you hear the testimony from your fellow worker at the CDC, Mr. Harrison, that there are over 4,600 AIDS cases on record, and perhaps more than 10,000 cases, with no evidence of HIV, either the virus itself or the HIV antibodies? And also the testimony that we only tested a fraction of AIDS patients for the presence of HIV in two of the major cities involved at the height of this epidemic?”

“Yes, I heard that. Those were not the best days at the CDC, Mr. Messick. We've tried to change things since then.”

“All well and good, Dr. Hanover. But if you had 10,000 cases of tuberculosis and no tuberculosis bacterium anywhere to be found, what would you think?”

"I'd think either that there was a misdiagnosis – that it wasn't tuberculosis to begin with – or that, if it were tuberculosis, we must have the wrong cause since we can't find the specific bacterium."

"And what if you had 10,000 cases of polio without the polio virus?"

"Same answer, Mr. Messick."

"And if you had 10,000 cases of smallpox but no smallpox virus present?"

"Wrong diagnosis or wrong cause. There's no way around it."

"And if you had 100 cases rather than 10,000?"

"It wouldn't matter, Mr. Messick. If I found just *one* case, it would send me back to the lab to verify my diagnosis or to look for a different cause."

"What if you suggested otherwise to your peers?"

"I'd be the laughing stock of the profession. Does it sound logical to you that you could have an infectious disease without having the cause in your body?"

"So, Dr. Hanover, if there are thousands of cases of AIDS where there was no HIV present – whether it's 4,000 cases or 10,000 cases – what is your conclusion?"

"As I said, there is no doubt in my mind that it is impossible for the virus called HIV to cause AIDS."

"Then can you tell me, Dr. Hanover, why the CDC hasn't, or won't, stand up and tell the world the truth – that a mistake was made, that HIV cannot be the cause of AIDS – and let science get on with the process of finding out what *is* the correct cause, and therefore the proper treatment?"

Dr. Hanover looks at Messick like he is nuts. "Mr. Messick, you've obviously never been involved in government, or politics. That's simply not a possibility, believe me. After twenty-five years...are you kidding?"

"I don't understand, Dr. Hanover. Hundreds, even thousands of lives are still being affected today by the continuation of this... *mistake*. Why not set the record straight?"

“Have you ever heard the United States government admit it made a mistake in the Vietnam War, or the war in Iraq? It’s not going to happen, Mr. Messick. Wake up!”

“But isn’t that exactly what you’re doing right now, finally telling the truth on live TV, to millions of people?”

“Yes, it is.”

“So isn’t your presence here in this courtroom today an admission by the CDC that they made a mistake?”

“Maybe, maybe not. It’ll depend on what happens when I leave here.”

“Meaning?”

“Meaning that if I don’t have a job in a month, Mr. Messick, you’ll know that the CDC will have disavowed my testimony and is sticking to their old story.”

“But weren’t you given permission by the CDC to testify?”

“Yes, I was. But I have a feeling they simply couldn’t figure out what to do, so they sent me and will figure it out later, based on what happens in this trial. I’m hopeful that the ‘new’ Centers for Disease Control and Prevention will live up to my expectations of honesty and openness with the public. If they don’t, I wouldn’t want to work for them anyway, and my firing will be welcome.”

“Thank you, Dr. Hanover.”

Messick looks depressed, even though he had just scored a huge victory with Hanover’s testimony. As he slumps down in his chair, Crawley gets up out of his.

“Dr. Hanover, let’s not be so quick to say a mistake was made here. Let’s talk again about Koch’s Postulates. Don’t you think, Dr. Hanover, no matter what field we want to talk about, that some set of criteria written down over a hundred years ago has gotten pretty stale and ought to be replaced, or at least updated, especially in the field of medical research, considering the giant steps we’ve taken in technology during that time?”

“That depends, Mr. Crawley. The Ten Commandments are a lot older than that and don’t necessarily need changing, now do they?”

The courtroom laughs, bringing down the gavel from Judge Watts.

“But Dr. Hanover, we're not talking about God, here. We're talking about a very human Dr. Robert Koch who came up with these postulates. And we're also talking about gigantic changes in medical procedures, medical technology, research capabilities. Won't you admit that Koch's Postulates are not the last word these days in determining causality?”

“No, I won't admit that, Mr. Crawley. In fact, I think it's pretty arrogant to even suggest that. Koch's Postulates not only make a lot of common sense, but they also work, as well today as they did 100 years ago. If you can show me something better, please do. What would you like to replace them with, Mr. Crawley?”

“Well, I'm not the scientific expert here, but if Dr. Gallo – who *is* a world-recognized expert in his field – suggests that Koch's Postulates are archaic, then I'm sure he knows what he's talking about.”

“Well, I don't know that I agree with you on that point, but I'd be happy to listen while Dr. Gallo tells me what he wants to take the place of Koch's Postulates, because we have to have *some* criteria, Mr. Crawley. We have to have *something* that gives us a system to determine causality. And I haven't found anything better than Koch's Postulates, to this day.”

“So, Dr. Hanover, you're saying that even though it is totally obvious from all the research that HIV causes AIDS, had you been on this job back then, you would have thrown all that evidence out if it didn't meet one of Koch's Postulates? You would have deprived so many thousands of people from treatment over the last twenty-five years because you would refuse to acknowledge the role of HIV, simply because of some set of arbitrary rules from one-hundred years ago – from the dark ages of medical research?”

“I'm not sure what research or evidence you're speaking of to support HIV as the cause of AIDS, Mr. Crawley. I've heard a lot about it, but I've never seen that research or that evidence. All I'm saying is that if you throw out Koch's Postulates, what are we left with? Anybody, anytime they wanted, could stand up, for example...” and she again looks directly at Dr. Gallo at the defense table, “...at a press conference, and say that this virus

caused that disease, and no one would be able to question it or test it or prove it. Medicine would be in chaos, Mr. Crawley, chaos.”

Crawley decides to give up. “I have no further questions.”

“Mr. Messick, re-direct?”

“No, Your Honor.”

“Then it is three-twenty-five on a Friday afternoon. This court stands in recess until nine a.m. Monday morning.”

Pandemonium isn’t even close to the right word.

Chapter Seventeen

Sarah waits until the tidal wave of reporters has passed and disappeared out the door. She then bucks the bit of remaining oncoming traffic, trying to make her way to the front of the courtroom, hoping to speak with Benjamin Messick. As she approaches the rail separating the spectators from the attorneys and trial participants, she has to pass the defense table where Crawley and others of his team, along with Dr. Gallo, are in the middle of a heated conversation, which Sarah easily overhears.

"I thought you said she was on our side?" It was Crawley chastising Dr. Gallo.

One of Gallo's lackeys from the row behind jumps to his defense. "I was told she was. Someone must have gotten to her." He turns to one of his assistants standing on the outside of the group. "Call the CDC and make sure she doesn't have a job come Monday."

With that, Sarah decides she wants to hear more and pauses, pretending to be searching for something in her purse.

"Well, that's it. I'm not getting up to cross-examine anybody else based on your recommendations." Crawley is still steamed at Gallo. "From now on I need to know myself for a fact what they're going to say. My god, that's the first thing you learn in law school. How could I let you...?" He looks at Gallo and shakes his head.

One of the younger lawyers – the newest member of Crawley's personal team – leans to ask Crawley a question.

"I still don't understand why you didn't cross-examine more witnesses."

Crawley can't let go of his feud with Gallo at the moment, so it's not the best time to question his tactics.

"Look, we've already made a public statement, *based on what Dr. Gallo told me...*" the last part being said louder and with emphasis so that Gallo can't help but hear, "...that Koch's Postulates are archaic and should be ignored. *If that's true...*," again shot in Gallo's direction, "...then we should also ignore the

witnesses talking about Koch's Postulates. How would it look if I said that it didn't matter if HIV doesn't meet Koch's Postulates, and then got up and argued with a witness who was saying that HIV doesn't meet Koch's Postulates? I came damn close to looking like a fool with...what's her name...Hanover."

He suddenly sees Sarah standing close by, perhaps listening to what should be a private conversation.

"Gentlemen, we should continue this elsewhere."

Crawley begins to usher everyone out the side door when Sarah sees that Messick has almost finished packing up and is about to leave as well. She rushes over to speak to him across the rail.

"Mr. Messick, can I have a word with you?"

He looks around only briefly. "I have no comment at the moment."

"Mr. Messick, I'm Sarah Meadows, health correspondent for the Arizona Tribune newspaper. Please, just a moment of your time..."

A reporter, I knew it. Messick continues to ignore her, picks up his briefcase and a stack of books, and proceeds toward the door off the opposite side of the courtroom where Crawley and his entourage disappeared, where Sarah can't go.

"Not now."

Sarah tries one more time, and her voice has a ring of desperation.

"Mr. Messick, I just want to know why?"

Messick stops for a moment and turns back to look at her. Sarah seizes the opportunity.

"Why are you doing this?" She made it sound like he was doing it to her, personally.

Messick looks a little puzzled at the question, almost says something, and then changes his mind and leaves through the door.

* * *

"...just an excellent job...I can't believe how well the first three days have gone...."

Messick is the only one in the room, his private office, seated at his desk. The voice is coming from a speakerphone.

“What I can't believe is that the defense would paint itself into such a corner. Crawley now risks destroying all credibility with the jury if he cross-examines any witness.”

This one is a different voice, but comes from the same speaker.

“...and then when he does stand up, he kills himself with Hanover. I don't know what he was thinking...”

A third, distinctly different voice. Messick is obviously on a conference call. He finally speaks himself.

“Let's not get too smug too soon. There's a lot of territory to cover, and Crawley can change his mind any time and probably get away with it. The Judge, for example, is not necessarily on our side. I wouldn't say she's favoring Crawley any more, either. She's just a hard-ass in general.”

“Has anything happened at sidebar that we should know about?” one of the disembodied voices wants to know. “Obviously, we see the rest on TV.”

“Not that I can think of. Nothing that wasn't specific to that moment or would be pertinent to you, if you had to step in.” Messick opens a bottle of Sam Adams while he listens to his three callers.

“I think I speak for all of us when I say that you've got our complete support with the way you're proceeding, but none of us would want to be in your shoes right now.”

“Right on.”

“You know it, dude.”

Messick puts his beer down and gets serious. “I appreciate that. What I would appreciate more is any little thing that you see or hear that I should change, no matter how small. And I want to keep talking with everyone every night so I can correct a mistake right away. I want to know that we're all on the same page at all times. Understood?”

“I'm with you.”

“You got it, pal.”

“We're here for you, whatever you need.”

“So, let's talk about next week's plan, and then let's get ready for the big game.” Messick picks out a pen from the container on the desk.

“Are you ready for some football?” It was Voice #1's lame attempt to mimic the late, great Monday Night Football.

“All right, settle down. Let's talk about next week. What I want to start off with on Monday is Gallo's press conference....”

Chapter Eighteen

TV viewers were watching videotape of the violent outbreak the previous evening in front of the courthouse between demonstrators on both sides of the issue. Sarah, on the other hand, is listening to the simulcast on her car radio and could only hear the noise and confusion; but she now recognizes the voice of Rick Mann of GNN.

“...it suddenly turned ugly. No one is quite sure what set it off, but it's clear the emotions on both sides are running quite high. In the end, over twenty demonstrators were arrested, eight were taken to local hospitals for treatment, and obviously nothing got resolved. Katlin.”

Katlin Willsey took Laura Begley's place as the GNN news anchor on Saturday mornings.

“Thanks, Rick, for another informative report from the AIDS trial in Phoenix. And we have with us again in our studio our chief health correspondent, Dr. Frank Keating. Dr. Keating, what is all this about Koch's Postulates?”

“Katlin, Koch's Postulates are what have been used for the last one hundred years by the medical research community to determine what causes an infectious disease. The point that Mr. Messick, the plaintiffs' attorney, is trying to make, pure and simple, is that HIV doesn't meet Koch's Postulates and therefore should not be called the cause of AIDS.”

Sarah had just turned off Interstate 17 onto Route 69, about sixty miles north of Phoenix, and was now heading northwest towards Prescott.

“And does Mr. Messick have a valid point?”

Keating hesitates slightly. “Yes and no. Normally, if something flunks Koch's Postulates, we say very flatly that it cannot cause that disease. In this case, HIV could not cause AIDS. And all research – and all money – is then turned toward something else, to find the real cause. Mr. Messick is right when he says that hasn't happened with HIV. But there is precedent for calling something the *cause* of a disease without it meeting

Koch's Postulates, and it comes from the highest medical officer in this country.”

“What are you referring to?”

The TV screen shows Keating holding up a pack of cigarettes. Radio listeners have to figure out what he’s talking about, but that’s not very difficult.

“This says, and I quote, Warning: cigarette smoking causes lung cancer. That warning is on every pack of cigarettes and comes to us from the Surgeon General of the United States. But if you applied Koch's Postulates in this case, you couldn't say that smoking *causes* cancer. Not everyone who smokes develops lung cancer, and there are people with lung cancer who never smoked. So Koch's Postulates are violated in this case. But we still say that smoking *causes* cancer. It would probably be more accurate to say that smoking contributes to lung cancer, or makes a person more susceptible to lung cancer, or creates an environment where lung cancer can occur more easily or frequently. But we don't say that. We say it *causes* cancer, maybe out of simplicity, maybe out of the desire to make people more afraid to smoke. And that language has become acceptable today.”

“But isn't it a little different with HIV and AIDS? After all, we've been told for thirty years that HIV *is* AIDS.”

“Yes, and the difference is that if you quit smoking, your chances of getting lung cancer are greatly decreased, because there is no doubt about the relationship between smoking and cancer, even though it might not be *causal*. Mr. Messick seems to be challenging the idea that there is *any* relationship at all between HIV and AIDS, beginning with the astonishing evidence that HIV cannot cause AIDS in the classic sense. And he scored a lot of points with the jury this week, I think.”

“Do you think we're in for more surprises next week?”

“Oh, I don't doubt it. From the testimony Mr. Messick is producing so far, it sounds like he might try to take this even further and prove that HIV not only doesn’t cause AIDS, but it has absolutely nothing to do with AIDS, and that AIDS is caused by something else entirely.”

“Well, we can only wait and see. Thank you, Dr. Keating. - Turning to our other top story, the continuing US military

occupation in Iraq suffered another setback today as insurgents...”

Sarah turns off the car, having found the address she was looking for. It is a small, one-story log home with not much acreage, but neatly tucked in the Ponderosa pines that surround this beautiful mile-high community of Prescott. She knocks. The front door opens slightly, revealing first a chain lock inside, and then about half of a woman in her mid-to-late sixties.

“Yes?”

“Mrs. Geddes?”

“Yes?”

“My name is Sarah Meadows. I'm a reporter with the Arizona Tribune.”

“Yes?”

“I'd like to talk to you about your involvement in the AIDS trial that's going on in Phoenix.”

“The lawyers promised that we wouldn't have to be directly involved.”

“I won't take much of your time...please.”

“All right. Come in.”

Mrs. Geddes unchains the door and shows Sarah into the living room.

“Can I get you something to drink?”

“No, thank you, Mrs. Geddes. I'm fine.” As Mrs. Geddes takes a seat on the sofa, Sarah wonders whether she's doing the right thing. *Well, I'm here now...might as well finish what I started.*

“Mrs. Geddes, I'm sure this is difficult for you, being reminded of the loss of your son after so many years.”

“It's not easy.”

“Can you tell me a little bit about your son, Willard?”

“He was 23 when he died of AIDS. It was horrible.” Small tears appear in both eyes. “You'd think after all these years that I'd be over it. But I'm not. Excuse me...” She disappears for a moment and returns with a box of Kleenex.

“I'm so sorry, Mrs. Geddes. But this is really why I came – to ask you why you would put yourself through this pain and suffering all over again by agreeing to be one of the plaintiffs?”

Mrs. Geddes stops crying and sits back on the sofa, pensively, as if she may have asked herself that same question a lot recently.

“When Mr. Messick first came to me, I said no. Then he asked me if my son had been taking the drug AZT before he died, and I said yes. And he asked me if my son had been sick before he started taking AZT, and I said, ‘Yes, he had HIV.’”

As Mrs. Geddes pauses and begins to tear up again, Sarah realizes that she should do this as quickly as possible to try to limit the pain and anguish.

“And what did Mr. Messick say?”

Mrs. Geddes blows her nose quite daintily. “He said he meant: Had my son had any symptoms of illness before taking the AZT. I thought for a minute and realized that he hadn't.”

“So why did Willard start taking AZT?”

“Because he found out he had HIV and he was told by his doctor that he had AIDS and would die unless he took the AZT.”

“But isn't that true?”

“Well, I thought so, until Mr. Messick showed me the information that he has, and then I started to wonder.”

Is Sarah beginning to wonder, too?

“What did Mr. Messick want from you?”

“He wanted me to join with four other families of people who had lost their sons to AIDS the same way I lost Willard.”

“But why you, and not one of more than half a million other families who lost their sons to AIDS?”

“Because he specifically wanted families of those who had not been sick at all, but had started taking AZT when they found out they were HIV-positive, and were dead within a couple years.”

This is beginning to sound all too familiar to Sarah.

“And why did you agree?”

“Because I started to think maybe there was something wrong here. Willard was a very healthy boy. And then he started taking this medicine, and suddenly he was sick, and then gone in twenty months. When I stopped to think about it, it didn't make any sense.”

“And Mr. Messick promised to get you money – a lot of money – ten million dollars, for the loss of your son if he won in court?”

“Oh, no. We don't care about the money, honestly. We're fine. We have all the money we need, and anyway, there's no one to give it to when we die, now that Willard is gone. I was more interested in the truth of what happened to Willard. And Mr. Messick convinced me that this was the only way the truth was going to come out.”

“But Mr. Messick himself stands to make a huge amount of money off this case. Lawyers in these kinds of cases usually get one-third. That would be around 900 billion dollars.”

“Oh, no. It's in the contract. All the expenses of the trial, of course, will be paid from the award, if we get one. But Mr. Messick only gets \$2,000 a month. He doesn't get a percentage.”

Sarah feels like she's been hit with a stun gun.

“What? Did you say *two thousand* a month, with no commission?”

“Yes. Two thousand.”

“But that's hardly enough to pay his own rent!”

“He said, he too was alone, that he didn't need much to live, and that he wasn't in this for the money. That's really why I trusted him, because I'm not in it for the money, either.”

Sarah has still not recovered from the shock. “This is very hard to believe. Do you have a copy of what you signed for Mr. Messick?”

“Sure. It'll take me a minute. It's in the study.”

Sarah watches as Mrs. Geddes walks down the hall and disappears, and then glances around the living room. A picture on the fireplace mantel catches her eye, and she goes over and picks it up. *Willard, I bet. Probably shortly before he got sick.* He was standing with his arm around another man, bare-chested. *His lover. But who's who?* As Mrs. Geddes re-enters the room, Sarah holds out the picture toward her.

“Is one of these your son?”

“Yes. That one. And, yes, my son was gay, and very much in love. Steve, the other one, died two years later.”

Mrs. Geddes takes the picture from Sarah and puts it back carefully on the mantel, exactly where it was before. Then she turns and hands Sarah some papers.

“Here you are.”

Sarah takes a minute to leaf through them, reading a paragraph here and there, looking astonished. She is now more confused than ever, and hands the papers back.

“Mrs. Geddes, I won't take any more of your time. Thank you so much for the information, and I hope you get what you want.”

“What I want more than anything, Mrs. Meadows, is peace of mind, and that will come when I know the truth.”

Chapter Nineteen

Monday morning traffic on the Squaw Peak Parkway was lighter than usual and Sarah had no trouble making it to court on time.

“Mrs. Hartman, you became Secretary of Health and Human Services for President Ronald Reagan in January of 1983, after a successful political career in Michigan.”

Marilyn Hartman is seated comfortably in the witness chair, although she was not used to being subpoenaed. Messick’s tone is respectful and polite.

“Yes, I did.”

“And one of the defendants,” he points to the defense table, “Dr. Robert Gallo, worked for you, did he not?”

“Yes, Dr. Gallo was the head of the Laboratory of Tumor Cell Biology of the National Cancer Institute of the National Institutes of Health.”

“Which was part of Health and Human Services?”

“Technically, it was part of the branch of Health and Human Services called Public Health Services.”

“So, Dr. Gallo was the head of one of many laboratories of one branch of another branch of a third branch of Health and Human Services...not necessarily one of your top directors.”

“No, but he was a highly respected scientist who had jumped up to lead the War on Cancer for President Nixon. I felt very fortunate to have him on my staff.”

“I see. You became Secretary of Health and Human Services just at the time when AIDS was starting to spread.”

“Yes. It was a difficult time.”

“There must have been a lot of pressure on you to find the cause of this new, deadly disease.”

Mrs. Hartman nods her head, as if remembering those days. “Yes. Intense pressure.”

“From the President?”

“Some, but mostly from my own feeling of responsibility for the health of the American people. After all, that was the description of my job, and I take my jobs seriously.”

“I can appreciate that. And I also assume that you passed this pressure – if you will, this urgency to find the cause of AIDS – you passed that on to the people who worked for you, particularly at the National Institutes of Health.”

“Yes, I suppose. But we were all very concerned. No one needed to be reminded of the urgency. Again, that was *their* job.”

“As a matter of fact, let me ask you to read the stated primary purpose of the National Institutes of Health from a booklet printed while you were Secretary.” Messick hands her the booklet he had picked up off his table. “Please start right there,” and he points to a particular place on a page.

Mrs. Hartman finds her glasses in her purse, puts them on, and starts reading.

“...To foster fundamental creative discoveries, innovative research strategies, and their applications as a basis to advance significantly the nation's capacity to protect and improve health.”

“So you looked to the National Institutes of Health to find the cause of AIDS. That was their job.”

“Yes, I did. And I did so with every confidence that they would get the job done.”

“And I assume that when Dr. Robert Gallo came to you on that spring day in April of 1984, announcing that he had discovered the cause of AIDS, you were...what?”

“Thrilled...relieved...and very hopeful.”

“Exactly. And, I would also assume, *proud* that it was your department and your people who had made the discovery.”

“Of course.”

“And it was important to announce these findings to the world as quickly as possible, wasn't it?”

“Yes. The world had waited long enough. People were dying daily from this awful disease.”

“It had been almost three years coming...”

“...and many thousands of people had already died, yes.”

Mrs. Hartman completed Messick's sentence, wondering where

all this was going, and why he had brought her all the way to Phoenix to talk about what a great job she had done.

“So you decided to hold a press conference on April 23, 1984, to reveal the cause of AIDS.”

Mrs. Hartman stops and thinks.

“I’m not sure whose idea it was, mine or Dr. Gallo’s.”

“Mrs. Hartman, let’s let the court see this press conference and then I’ll have some more questions for you afterward. Your Honor, if I could ask for the TVs, and the lights....”

The entire courtroom watches the actual film footage of the press conference convened and presided over by Mrs. Hartman as Secretary of Health and Human Services, where Dr. Gallo announces he has found the cause of AIDS – a retrovirus he calls HTLV-3, named so because it was the latest in a family of viruses he had been working on in his research. He shows pictures of HTLV-1 and HTLV-2, and then HTLV-3.

After the lights come back up, Messick continues with his questions. But now he’s not quite so respectful or polite.

“That was April 23, 1984. Mrs. Hartman, prior to that, as a congresswoman from Michigan, you served for two years on the Science and Technology Committee in the House of Representatives. But other than that, you really had no background or expertise in medicine or science, did you?”

“No, I didn’t.”

“Your appointment as Secretary of Health and Human Services was a political appointment from a fellow republican, Ronald Reagan, who wanted you mainly because of your expertise in management and government operations.”

Mrs. Hartman is not quite so sure she likes where this is headed now.

“You could say that.”

“So when Dr. Gallo came to you professing to have discovered the cause of AIDS, you had no real background to question his claim, did you?”

“Why should I? He was one of the most respected medical researchers in the country.”

“So you didn’t ask him on what basis he made his claim, did you?”

“No, I didn't.”

Now she's sure she doesn't like where this is going. *How dare he! Better be careful, young man...*

“You didn't have any idea to ask him, for example, whether his virus had passed Koch's Postulates and qualified to be the cause of AIDS, did you?”

“No.”

“Did you even know what Koch's Postulates were at that time?”

“No, I didn't.”

“You didn't ask him if he had published his work and had other scientists confirm his findings, which was standard operating procedure in medical research, did you?”

“No.”

“Did you even know that's what he should have done – had his ‘discovery’ confirmed by his peers before making his declaration?”

“No.”

“You didn't ask him if he stood to gain anything personally – and I'm not just talking about fame, but money, lots of money, about 1.4 million dollars – by being the one you presented to the world as the discoverer of the AIDS virus, did you?”

She had had about enough.

“It never occurred to me to ask those questions, Mr. Messick. I trusted Dr. Gallo implicitly. I still do. If he says he found the cause of AIDS, then I believe him.”

“Mrs. Hartman, I want to show you the three pictures that Dr. Gallo presented during the press conference....” Messick walks over to a large easel that had been set up and pulls the drape away, exposing three blow-ups of the pictures everyone had just seen on the video.

“Mrs. Hartman, these are numbered as plaintiffs' exhibits 103, 104, and 105. Do you recognize these pictures?”

“Well...” hesitating. “They look like the pictures we just saw on the video, I guess.”

“Do you remember these pictures from the actual press conference in 1984?”

“Mr. Messick, that was a long time ago...and there was a lot going on...so, no, I can’t say that I remember them twenty years later.”

“Do you, at least, know what they are pictures of, Mrs. Hartman?”

“Well, we just saw Dr. Gallo on the video say they were pictures of some viruses he had discovered. Isn’t that what he said?”

“Yes, Mrs. Hartman, That’s what he *claimed*.”

Messick pauses to look at his notes.

“Mrs. Hartman, what is your first impression when you look at these pictures?”

She looks at the easel for a minute.

“I’m not sure what you’re asking, Mr. Messick.”

“Well, do all three pictures look alike, for example?”

Since she didn’t know what he was up to, she couldn’t do anything except answer honestly.

“No, not really. Two of them do. Numbers 103 and 104 actually look like they may be the same picture. The other one, 105, looks like something different. That’s all I can say.”

“Let me tell you, Mrs. Hartman, what Dr. Gallo said about these pictures. He said that number 103 is a picture of a retrovirus that he called HTLV-1, which he discovered while searching for the cause of cancer. And picture number 104 is another retrovirus discovery he called HTLV-2. It’s easy to see that both of them belong to the same family of retroviruses, isn’t it? In fact, you said you thought they might be two pictures of the same thing, they’re that closely related.”

Messick looks at Mrs. Hartman, who says nothing.

“Now, picture number 105 is the picture Dr. Gallo presented to the world at the press conference you presided over on April 23, 1984, of his newest discovery, and according to Dr. Gallo at least, the third in this family of retroviruses, which he called HTLV-3. He also said that this – number 105 – was the cause of AIDS. Mrs. Hartman, you’ve already told us that picture 105 doesn’t look anything like 103 or 104. Can you tell me how they could be from the same family of retroviruses?”

Mrs. Hartman starts to answer, "I'm not an expert on viruses..." and then looks to Crawley for help, who finally stands.

"Objection. Calling for an expert conclusion from this witness."

"Your Honor, I'm simply asking Mrs. Hartman for her personal opinion, not an expert opinion, about how these pictures look to her."

Judge Watts pauses for a moment before saying, "Objection sustained."

Messick looks puzzled by the ruling, but he knows the jury is seeing what he wants them to see anyway.

"All right. Mrs. Hartman, if the viruses in pictures 103 and 104 were, as Dr. Gallo claimed, potentially responsible for causing cancer, and if cancer is a disease where cells are *multiplying* uncontrollably, how could a third member of this same family cause AIDS, a disease in which cells are *dying* uncontrollably?"

"I said I'm no expert...."

"Objection."

"Sustained."

Messick had said he didn't think Judge Watts was leaning favorably toward Crawley, but after those two rulings, he's not so sure he was right. He pauses to regain his rhythm.

"Mrs. Hartman, isn't it true that you didn't ask any questions of Dr. Gallo, that you took his claim of discovering the cause of AIDS at face value..."

Mrs. Hartman breaks in, tired of his harassment. "I had no reason to doubt Dr. Gallo."

"Isn't it true that you have no medical or scientific background to ask any of the tough questions that should have been asked before calling a press conference and announcing the cause of AIDS to the world?"

"We needed this information to be made public as quickly as possible, so we could start finding a cure."

"Isn't it true that you were so pleased with this political coup, this feather that would go in your own cap as well, that you couldn't see, or basically overlooked, all the evidence that was

there, and all the evidence that *wasn't* there, that would have brought this claim crashing to the ground?"

"No, that's not true."

"Objection!"

"Sustained. The jury will disregard the question and the witness's answer. Stop badgering the witness, Mr. Messick."

"Very well, Your Honor." He looks at his notes again, trying to calm himself down. He could get really incensed at some of the answers from these witnesses, and he knew he should keep his own emotions under control.

"Mrs. Hartman, you said earlier that you felt a sense of hope – *hope* was the word you used – when Dr. Gallo told you he had found the cause of AIDS."

"Yes, absolutely."

Mrs. Hartman was so thankful that Crawley and the Judge had put this young upstart in his place.

"Hope about what?"

"I thought that if we had found the cause of AIDS, we were not far from finding the cure, and a vaccine to prevent it."

"That would be logical, wouldn't it?"

"Yes, but I obviously underestimated the difficulty of finding a cure or a vaccine for this particular disease."

"Or, Mrs. Hartman, maybe the reason that – more than 20 years after the discovery of what supposedly caused AIDS – maybe the reason we still don't have a cure or a vaccine is because we have the wrong cause to begin with!"

Mrs. Hartman doesn't respond, but it is clear from her reaction that she never considered that possibility.

"Mrs. Hartman, you left the position of Secretary of Health and Human Services in 1985, did you not?"

"Yes, I did."

"Was it because you realized that you had made such a huge mistake, and didn't know how to correct it by then, and had to leave?"

"No, Mr. Messick, it was not." Now she was indignant.

"Was it because you found yourself way over your head in that department, unprepared for the medical and scientific expertise that was required during those times?"

“No, I...”

Messick doesn't let her finish, hoping to get some kind of rise out of her.

“Then Mrs. Hartman, why leave a prestigious Presidential cabinet post in less than three years?”

Crawley gets up and starts to object, but Mrs. Hartman shoots him a look of, "It's okay." Crawley remains standing, just in case.

“Let's just say it was for personal reasons.”

Damn, she didn't bite. Okay. Move on. Messick hands her the same booklet she read from before.

“Mrs. Hartman, one last thing. Again, from the printed purposes of the National Institutes of Health, where Dr. Gallo worked. Would you please read purpose number four?”

Mrs. Hartman puts her glasses back on and reads. “Number Four – to exemplify and promote the highest level of scientific integrity, public accountability, and social responsibility in the conduct of science...”

“That's enough, Mrs. Hartman, Thank you.” Messick then repeats those lines, obviously from memory, while looking directly at the jury. “*Scientific integrity, public accountability, and social responsibility...*” He turns back to look at the witness. “And you truly thought Dr. Gallo embodied these lofty principles?”

But Messick doesn't let Mrs. Hartman respond. “That's all. Thank you.”

Crawley finally sits back down, and so does Messick.

Chapter Twenty

“**E**ven a layman could see that picture 105 doesn't look anything like pictures 103 and 104.”

“But you're no layman, Dr. Moreau. So please answer the question: In your expert opinion, could the virus in number 105 be part of the family of viruses pictured in numbers 103 and 104?”

“No, it couldn't, and it's not.”

“Obviously, Dr. Moreau, you're quite familiar with these pictures.”

“Yes, I would say that.”

In fact, Dr. Louis Moreau was the French scientist who later was given equal credit with Dr. Gallo for the discovery of the virus that supposedly causes AIDS.

“Then please tell the court, Dr. Moreau, exactly what these pictures are all about.”

“Numbers 103 and 104 are pictures of a retrovirus family discovered by Dr. Gallo, called HTLV-1 and HTLV-2.”

“And picture number 105?”

“Number 105 is a picture of a retrovirus called LAV – Lymphadenopathy-Associated Virus – that was discovered in 1983 in my lab at the Pasteur Institute in Paris, France.”

“But did you see in the video tape of the press conference on April 23, 1984, that Dr. Gallo said this was a picture of a virus *he* discovered in *his* lab called HTLV-3?”

“I saw that. I was aware of it when it happened.”

“How can you prove that this is a picture of *your* virus and not Dr. Gallo's?”

“Because I published it long before Dr. Gallo's press conference.”

“Has anyone since then ever suggested or proved that you are wrong when you say *you* discovered this virus *when* you say you did, in your own lab?”

“No, never. To the contrary, the proof is indisputable that this is the LAV virus discovered in my lab in 1983.”

“Dr. Moreau, if you discovered this virus, how did Dr. Gallo get hold of it?”

“I sent it to him myself.”

“Why?”

“In the early part of 1983, like everyone else, I was trying to find the cause of AIDS, and we had isolated this LAV virus from several AIDS patients in France. I sent a sample of the virus to Dr. Gallo for him to test – to grow in culture and verify that this, in fact, was the causal agent of AIDS.”

“You wanted Dr. Gallo to test your LAV virus to see if it met Koch’s Postulates?”

“Yes.”

“How ironic.” Messick said it quietly, almost under his breath.

“Pardon?” Dr. Moreau would easily slip back into his native language when he didn’t understand.

“Nothing. But why send it to Dr. Gallo?”

“Because he had the best equipped lab in the world, and a multi-million dollar budget to work with, for one thing.”

“Did you hear back from Dr. Gallo, whether he was successful or not in proving that the virus you discovered was the cause of AIDS?”

“I heard that Dr. Gallo was having trouble making a clone – in other words, growing the virus in his own lab. In fact, in September of that year, I believe, I received a request to send more sample. Presumably they had exhausted the original supply.”

“What else did you hear from Dr. Gallo?”

“Nothing directly, but I began to hear statements attributed to Dr. Gallo in the media, and in scientific circles, dismissing my virus as the cause of AIDS, calling it a ‘contaminant.’”

“Dr. Gallo was saying publicly that your LAV virus could not be the cause of AIDS, and basically was an error made by your lab?”

“Correct.”

“And your reaction to his derogatory comments?”

“I first assumed that Dr. Gallo knew what he was talking about. That’s why I sent him the virus in the first place – for his

expert opinion. I would have appreciated getting that opinion first-hand, especially if it was negative, rather than making it sound like the French didn't know what we were doing. But I accepted his conclusion of 'contaminant,' for a while at least."

"What changed your mind?"

"When I saw the picture of the virus Dr. Gallo called HTLV-3, claiming it was the cause of AIDS. I knew it was a picture of my LAV virus, and that something wasn't right."

"Was there any other reason for you to be suspicious about Dr. Gallo's claim that a member of his HTLV family of viruses caused AIDS?"

"Yes, this was difficult, because HTLV-1 and HTLV-2 are retroviruses that Dr. Gallo claimed were causing cancer. That is, they are not cytopathic – they don't kill cells, they transform them, hence the cancer. For the third member of the same family to destroy cells, as it would have to do if it caused AIDS, was very strange, to say the least."

"So Dr. Gallo stole your virus, stole the honor of discovering the cause of AIDS, and stole all the money that would result from this medical coup d'état, pardon my French."

Despite the tension, the courtroom laughed. Or maybe they needed to laugh to release the tension. Whatever the case, Judge Watts didn't like the outburst and gavelled them quiet.

"I will not use the word 'stole,' and all of this has been straightened out long ago, Mr. Messick. Dr. Gallo and I are officially co-discoverers of the virus called HIV."

"I understand that, Dr. Moreau. And I will be calling another witness to tell that story in a moment. Right now, just a few more questions." He consults his yellow pad. "Did you ever prove, in your own lab, that your virus, the LAV virus, was the cause of AIDS?"

"No."

"And if your LAV virus and the HTLV-3 virus are one and the same virus, you also did not prove that the HTLV-3 virus causes AIDS."

"Not in my lab."

"In a minute we'll find out how this virus that you called 'LAV' and Dr. Gallo called 'HTLV-3' came to be known as

‘HIV’ instead. But if your LAV virus and the HTLV-3 virus – the exact same virus, mind you – were simply renamed and called HIV, you did not prove that HIV caused AIDS either, did you?”

“No.”

“In fact, didn't you, Dr. Moreau, at one point, come to the conclusion that the virus called HIV could *not* be the cause of AIDS?”

“Well...”

When Moreau hesitates, Messick goes to his table.

“Dr. Moreau, just to help you remember, it was at the Sixth International Conference On AIDS, held in June of 1990 in San Francisco, where you said, and I quote,” Messick reads from one of the papers he picked up, “‘Retroviruses are the most harmless and benign of all microbes – it is not in their nature to cause lethal illness,’ unquote. You went on to say that you did *not* believe, and again I quote, ‘that HIV could cause death, since almost immeasurably small quantities of the virus were ever found, and since HIV is a retrovirus, a class of viruses which normally coexist with the host, reproducing slowly *without* killing.’ And again, quote, ‘It is not in the philosophy of retroviruses to kill all the cells of the host,’ you said. Did you, Dr. Moreau, in fact, make those statements?”

“Yes, I did. But...”

Messick interrupts. “But this was before you were officially given credit for the discovery of the AIDS virus, which brought fame and money to you and to France.”

“Yes, but...”

Messick breaks in again. “No further questions of this witness.”

How rude, Sarah thought. No wonder we're thought of as “ugly Americans” in Europe.

Chapter Twenty-One

“Thank you, Mr. Holdsworth, for being here today.”

“I had no choice. I was subpoenaed.”

“Yes, you were. Now, just to establish your credentials, it is my understanding that you have been employed by the State Department of the United States under several different Presidents, and also worked free-lance, if you will, specializing in high-level negotiations on an international scale, both in an official and an unofficial capacity?”

“If you say so.”

Messick looks at Judge Watts for help, but she doesn’t budge.

“Mr. Holdsworth, please answer Yes or No.”

Holdsworth is a crusty old man, Messick realizes. But his testimony is important, so just grin and bear it.

“Yes.” But that’s all you’re going to get from me, sonny.

“Mr. Holdsworth, did you receive a call from the State Department in 1984, asking for your help?”

“I received several different calls that year from the State Department, if I remember correctly.”

“This call, in particular, would have been about an international crisis between France and the US over the discovery of the AIDS virus.”

“Perhaps.”

Messick finally appeals to the Judge, who really has no choice.

“Mr. Holdsworth, you will answer the questions as completely as possible, and stop being coy with Mr. Messick.”

Holdsworth did not turn to face her when Judge Watts had given him her instructions. Nor did he look at Messick when the next question came.

“Mr. Holdsworth, was there, in fact, an international crisis over the discovery of what caused AIDS?”

“No. I wouldn’t call it a *crisis*. Nuclear missiles in Cuba is a crisis.”

“All right. Let's call it a *serious incident* that threatened Franco-American relations.”

“There was a problem that needed to be handled, yes.”

“Well, it apparently was big enough and serious enough to call in a specialist from the State Department.”

“I offered to help.”

“So what was the problem, Mr. Holdsworth?”

“There seemed to be some confusion about who actually discovered the virus causing AIDS.”

“Hadn't Dr. Gallo already announced to the world at a press conference that it was *his* discovery?”

“Yes, he had.”

“But the picture he showed of his HTLV-3 virus at that press conference was actually a picture of a virus sent to him months earlier by Dr. Louis Moreau in Paris, wasn't it? And that same picture had been published by Dr. Moreau previously, so there was no doubt that Dr. Gallo had been caught with his hand in the cookie jar. That was the problem, wasn't it?”

Holdsworth didn't have much choice when the question was asked that way. “Yes.”

“And the French wanted credit for the discovery of the AIDS virus.”

“That's what they said.”

“What was the outcome of your negotiations?”

“President Reagan and Prime Minister Chirac of France issued a joint statement from the White House to clear up the confusion.”

“Which said...?”

“...which said that Dr. Gallo and Dr. Moreau were officially co-discoverers of the AIDS virus.”

“But you still had the problem of the name of the virus. Was it going to be called HTLV-3, as Dr. Gallo claimed, or LAV as Dr. Moreau claimed?”

“We left that up to a scientific committee.”

“Do you know what their decision was?”

“Of course, Mr. Messick. And so do you.”

Messick ignored the sarcastic attack. “What was it?”

“The committee decided to officially name the virus ‘HIV.’”

“Which means...”

“I’m not a medical expert, but I believe it means Human Immunodeficiency Virus.”

“That’s exactly what it means, sir. So the name ‘HIV’ was a political decision, not a medical or scientific one?”

“I guess you could say that.”

“And lastly, Mr. Holdsworth, what did the negotiations between the US and France decide about the money?”

“What money?”

“All the money that would come from the patents that would result from this discovery, like the royalties from HIV tests and so forth. How was that going to be divided?”

“It would be split between the two countries.”

“So the United States gave up the claim that one of its own, Dr. Robert Gallo, had discovered the virus causing AIDS, we gave up the name of that virus, and we gave up some of the money. The French must have had a pretty strong case, Mr. Holdsworth, for us to give all that up.”

You didn’t ask me a question, and I’m not answering, you little whippersnapper.

“There must have been no question in your mind, Mr. Holdsworth, that Dr. Gallo stole the LAV virus from Dr. Moreau.”

No question? No answer.

“Mr. Holdsworth, what did the US get in return?”

“What do you mean?”

“What I mean is this: if the French had such a strong case that required the intervention of our President and their Prime Minister, then they also must have had a very strong case to go to a World Court and prosecute Dr. Gallo for stealing the French LAV virus. Is that what we got in return, Mr. Holdsworth – the agreement from the French not to prosecute? Did you save us from complete embarrassment in the international scientific community because of what this one doctor did at the National Institutes of Health?”

“I’m afraid I can’t comment on that.”

“There’s no need, Mr. Holdsworth. I think the answer is very clear. No further questions.”

Chapter Twenty-Two

“Bill? I’m home.”

Sarah drops her briefcase and keys on the kitchen counter and finds Bill on the couch watching GNN. She kisses him on the cheek, but he only perfunctorily returns her affectionate greeting. He’s too engrossed watching Laura Begley on TV. Sarah sits down beside him.

“With us again is Dr. Frank Keating, GNN's chief health correspondent. Dr. Keating, what do you have for us tonight?”

Keating had been given his own news desk so that he didn’t have to share the camera with Laura; and tonight, he’s ready to deliver his own bombshell.

“Laura, we're not getting very much of the other side of this question, since the defendants have chosen to sit on their hands and not even cross-examine many of these witnesses. I thought it would be good to provide some balance. So I did a little research, and I found that way back in March of 1993, *Nature Magazine* published a string of articles finally offering definitive proof that HIV caused AIDS, supposedly ending this question forever.”

A picture of the cover of *Nature Magazine* appears to the left of Keating’s head.

“For example, Dr. Michael Ascher and a team of epidemiologists wrote that among a group of a thousand drug-free San Francisco men, only those with HIV had developed AIDS. Then, two weeks later, Dr. Anthony Fauci, head of the National Institutes of Allergic and Infectious Diseases...,” and a picture of Dr. Fauci replaces the *Nature Magazine* cover, “...and a good friend of Dr. Robert Gallo, published a paper claiming that he had found large amounts of the actual HIV hiding in the lymph nodes of infected patients. A third article then supported Dr. Fauci's discovery of the virus. I have those articles right here.” He holds them up in his hand so the camera can see them clearly. “And I thought they would put the whole issue to rest. I fully expected the defense to present these studies in cross-

examination of one of these witnesses, and that would be all they needed to end this trial and send the jury home.”

The screen switches back to Laura. “I take it you found out why the defense hasn’t done that, Dr. Keating.”

“Yes, Laura, I did. It turns out that Dr. Ascher and his colleagues had used improper and misleading statistical methods on poorly collected data. Every one of the 1,000 San Francisco AIDS patients in Ascher’s study – *every one of them* – was a homosexual who were far from being drug-free, and had in fact used a number of recreational and medicinal drugs. That’s hardly something you can write off. Since then, there have been independent reviews of Dr. Ascher’s studies confirming that there were no drug-free AIDS patients at all. None.”

“And what about Dr. Fauci’s claim to have found active HIV in patients, Dr. Keating?”

“It turns out it was a total of three patients that he worked with. I guess three is enough for him to use the word ‘patients,’ plural, in his study, but I still think that’s a pretty small sample. In addition, what he actually found was a tiny amount of dormant HIV genes and no live, active, infectious virus at all. Ironically, Dr. Ascher and his colleagues later turned on Dr. Fauci, criticizing his paper in a letter published, again in *Nature Magazine*, for his, quote, skimpy data on virus in AIDS patients, unquote.”

“Talk about calling the kettle black!”

“Laura, what I’m finding is that all the studies and the research and the evidence that Dr. Gallo and Dr. Fauci and others have been claiming for years is out there that proves HIV causes AIDS, doesn’t actually say what they claim it says or prove what the defendants in this trial claim it proves. But I’m still looking, and if and when I find it, I’ll get back to you.”

“All right. Thank you, Dr. Keating. Oh, by the way, if you can’t find it, come see us again anyway.” Laura gives Keating a big smile. “And now, turning to other news...”

Sarah had found the remote and turns off the TV. She gets up and starts walking to the kitchen.

Bill calls after her. “Hey...Sarah...what do you think about that report?” Bill assumed they’d have some discussion when it

was over, and Sarah would share the day's events in court, like she usually did.

"I've got to cook dinner," was the only answer Bill got, and all he was going to get for the rest of that night.

Chapter Twenty-Three

“Please spell your name, sir.”

“M-I-R-E-K, P-A-V-L-O-V-I-C-H.”

“And am I correct, Dr. Pavlovich...”

“It’s pronounced Pav-LO-vish, not PAV-lo-vick, please.”

“Of course, I’m sorry. Dr. PavLOvich, am I correct that you have both an M.D. degree and a Ph.D.?”

“Yes, that is correct.”

“Can you give us a little bit more of your background?”

“I was trained at Comenius University and the Cancer Research Institute at Slovak Academy of Sciences in Bratislava, Czechoslovakia. I joined the National Cancer Institute in 1980 as an American Cancer Society fellow and remained as a visiting associate, visiting scientist and senior investigator at the Laboratory of Tumor Cell Biology until 1989. I then...”

Pavlovich’s English is perfect, and his Slovakian accent minimal. But Messick knows this list could go on forever, so he cuts him short.

“Dr. Pavlovich, thank you. That’s very impressive. Specifically, where were you working in 1983?”

“Let’s see...in the Laboratory of Tumor Cell Research at the National Cancer Institute in Bethesda, Maryland.”

“So you worked with Dr. Gallo?”

“No, sir. I worked *for* Dr. Gallo. No one works *with* Dr. Gallo.”

There’s a snicker throughout the courtroom. A few heads could also be seen nodding in silent agreement. *Finally, someone had said it like it is.*

“Let me get right to the point of why you are a witness. You were familiar at that time with a particular T-cell culture called HUT78.”

“Quite familiar, yes. I was using it to grow HIV in our lab.”

“Was it easy to get this HUT78?”

“Yes, it was. You could get it directly from Dr. Adi Gazdar, who developed it, or from the ATCC, for example.”

Messick decides it's not really that important for the jury know who Dr. Gazdar is or what the ATCC is.

"Was it expensive?"

"No. \$80 to \$100. That's all."

"And was it a popular culture?"

"Yes, I would say so. A lot of labs were using it for various experiments."

"Was there anything particularly special about this HUT78 in 1983?"

"No, except that it was about the only culture that would support the growth of the AIDS virus."

"When you say 'AIDS virus', you are referring to..."

"It was called by different names at that time. But basically, it was HIV."

"And the term, LAV?"

"You certainly better not call it LAV in our lab, not in 1983."

"Why not? They were identical, weren't they – different names for the same virus?"

"Dr. Gallo called it HTLV-3, and you better call it that, too. There was even a government directive in 1984 saying that the virus that caused AIDS would be called HTLV-3, and any reference to the LAV virus was forbidden."

"Even though the virus was, in fact, LAV, shipped over to you from France?"

"You would have lost your job, Mr. Messick."

This is going better than I had anticipated, Messick thinks. He looks back at his notes.

"Okay. So you had easy access to HUT78."

"Anybody did."

"So it wasn't that the LAV, sorry, HTLV-3 virus needed some very special culture to grow...the culture was pretty common?"

"That's true."

"Tell us about H9."

"H9 is another T-cell culture."

Messick looks up with surprise. Pavlovich had fallen into his trap so easily.

“What do you mean ‘another’ culture? Hasn’t the H9 culture been proven to be identical to HUT78?”

Pavlovich seems to wince a little, realizing what had just happened and that Messick knew more than he thought he did. His answer is slow in coming.

“Yes.”

“Do you want to tell the court how this happened?”

“Well, I mistakenly thought I had created a new T-cell culture, and I called it H9.”

“What do you mean, ‘mistakenly’?”

“I mean that apparently I had taken some HUT78 without realizing it, cloned it, and thought I had created a new line. We called it H9.”

“But it was really HUT78.”

“Yes.”

“Basically, you just renamed the HUT78 culture as ‘H9’?”

“Yes.”

Messick looks at the jury. Please, please get this next part...

“When you said ‘we called it H9,’ who did you mean by ‘we’?”

“Dr. Gallo and I.”

“So Dr. Gallo knew all about this little ‘mistake’ of yours?”

“Yes, I told him.”

“Didn’t this mistake get compounded?”

“How do you mean?”

“Didn’t the word get out somehow that the only culture that would grow the AIDS virus was ‘H9’ and *not* ‘HUT78’ – even though they were identical?”

“Yes, I think that did actually happen.”

A quick glance at the jury. Good. It looks like I didn’t lose anybody. Now, stay with me some more...

“What was the result of this little piece of misinformation?”

“I’m not sure I follow.”

“For example, if someone wanted to test Dr. Gallo’s contention that his HTLV-3 virus caused AIDS, and they wanted to grow the virus in their own lab according to Koch’s Postulate Number Two so they could do Postulates Number Three and

Four, what did they have to do, now that it was believed that only the H9 culture would work?"

"They would have to acquire some H9 culture, of course."

"And where could they get this H9 culture? Was it readily available from lots of sources, like the ATCC?"

"No."

Pavlovich is obviously not very pleased that Messick is taking him down this road.

"So where would someone get it?"

"From our lab."

"Only from your lab?"

"Yes. We were the only ones that had it."

"Dr. Pavlovich, if a request came in to send H9 to the Stanford University Medical Research Center, for example, would you just ship it right off?"

"No."

"No? Why not?"

"The request had to be approved."

Pavlovich looks resigned to the fact that he's finally been caught, after thirty years. *Well, may as well tell the whole story, then*, he decides. *Too late to try to keep hiding it*. He looks at Dr. Gallo sitting at the defense table and kind of shrugs his shoulders, as if to say that he's sorry, but there's nothing else he can do.

"Approved by whom?"

Pavlovich looks back to Messick, ready to get it all out in the open.

"By Dr. Gallo."

"Oh. Now I see. In order to test Dr. Gallo's theory that his HTLV-3 virus caused AIDS, his peers had to come to him to get the only culture they were told that would grow it. Is that correct?"

"Yes."

"Did Dr. Gallo grant these requests for H9 very often?"

"No."

"Who did he agree to send the H9 culture to?"

"A few top researchers."

"A few top researchers? Or do you mean a few top friends that he could control?"

“Objection. Leading and argumentative.”

“Sustained.”

“I’ll withdraw the question. Dr. Pavlovich, you said HUT78 was readily available, yes?”

“Yes.”

“Anyone could get HUT78 and try to grow the AIDS virus for themselves and see if it met Koch's Postulate Number Two.”

“Yes.”

“But if you believed that you needed a special culture called H9, you wouldn’t waste your time trying to test Dr. Gallo’s claim that HIV caused AIDS until you got some of this H9 culture, would you?”

“I suppose not.”

“And to get this so-called special H9 culture, your request had to be approved by Dr. Gallo, correct?”

“Yes.”

Now Messick’s ready to pull it all together for the jury.

“Dr. Pavlovich, if you wanted to claim that a virus you discovered caused AIDS, and if you were concerned about it failing Koch's Postulates – especially Three and Four, because it would not result in making a healthy chimpanzee sick – and you wanted to limit the people who tried to grow the AIDS virus to your personal friends who you could control a lot more easily than a whole profession of peers, what would be the easiest way to do that?”

No, Mr. Messick, you’re pushing me too far with that one. “I have no idea what you're talking about.”

“Oh, I think you do, Doctor. Let me put it this way...if your peers suddenly needed some very special culture – not the easily accessible HUT78 – to grow the virus, and they could only get it from you, wouldn't that pretty much limit who did the testing?”

“Yes, I suppose so.”

“Isn't it true, Dr. Pavlovich, that you didn't ‘mistakenly’ produce this new culture called H9 at all, but that you *intentionally* did so to create this very limited supply of the culture, and then helped spread the rumor that only the H9 culture would work to grow HIV?”

“Objection.”

“On what grounds?”

“Leading the witness.”

“Overruled. The witness may answer.”

No, Mr. Messick. I’m willing to give you Dr. Gallo’s head, but I’m not going to voluntarily incriminate myself any further. “It’s possible, I suppose.”

Messick looks down at his notes on the lectern and sees the big stars by Yamashuri’s name. *Oh, yes. Don’t want to forget about this.*

“Dr. Pavlovich, one of your lab workers was here to testify earlier, Mr. Yamashuri, and he told us about a report you originally wrote for *Science Magazine* in 1984 that said you had no trouble growing the virus in your lab, but that Dr. Gallo made you change that report before it went to print. Is that correct?”

“Yes, Mr. Messick, that’s public knowledge.”

Which I apparently missed completely, but okay. “Why would Dr. Gallo make you do that – make you lie in a scientific journal?”

“You can’t figure that out, Mr. Messick?”

“Help me out, Dr. Pavlovich.”

“Dr. Gallo wanted it to look like it was difficult to grow the virus.”

“Why?”

“For lots of reasons, actually.”

“Like?”

“Like it made it appear that he had done something in his lab that others wouldn’t be able to do without his expertise, for one thing.”

“Oh, so Dr. Gallo ordered you to alter your scientific paper to lie about growing the virus in your lab, and also to create this mysterious new culture called H9, which he limited access to, to make it sound like he had accomplished something extremely difficult that others should not even attempt to duplicate, so that very few of his peers would try to put his theories to the test – essentially, only those who he could control?”

“Yes, Mr. Messick.”

“Wasn’t what you did completely unethical, Dr. Pavlovich, if not illegal?”

"It's easy in hindsight, isn't it, Mr. Messick?"

"I would have hoped it would have been easy in 1983, Dr. Pavlovich. Why did you do it? Why did you go along with Dr. Gallo's order?"

This is all too much, after all those years. Pavlovich bows his head, slumps his shoulders, and almost whispers his answer.

"I needed that job, Mr. Messick. I loved my work. I would have lost everything."

"Are you saying that Dr. Gallo would have fired you if you didn't do what he said to create this fictitious culture called H9?"

"I was afraid, Mr. Messick."

"Now *that*, I understand, Dr. Pavlovich."

Messick almost feels sorry for Pavlovich. He goes to his table and picks up a magazine.

"Dr. Pavlovich, let me read you something. First of all, are you familiar with a Dr. Jay Levy?"

"Yes. Dr. Levy was working at that same time on AIDS research at the Cancer Research Institute at the University of California, San Francisco."

"Let me read you something Dr. Levy said about Dr. Gallo...."

"Objection, this is hearsay."

Crawley's on his feet, looking very concerned, but Messick doesn't hesitate to interrupt his objection.

"No, it's not, Your Honor. These remarks have been published and verified as belonging to Dr. Levy. I'm simply reading a public record for Dr. Pavlovich to solicit his comments."

"Overruled. Continue, Mr. Messick."

"Dr. Pavlovich, Dr. Levy said, and I quote, 'Bob Gallo,' referring to Dr. Robert Gallo..." and he points to the defense table, "... 'had incredible power. You can then see why he was so feared; nothing could touch him. He did whatever he wanted. Anyone that did him bad, you were out of the picture. He ran [his lab] like an autocrat, a tyrant – whatever you could call him. It was a dangerous situation for science; he controlled it all. And that's why he could do what he did and almost get away with it.'"

Dr. Pavlovich, you worked for Dr. Gallo. Is that how you saw him as well?"

No sense trying to protect anyone any more, me or Gallo.

"Yes, I'd have to agree with Dr. Levy."

"That's all the questions I have."

Judge Watts throws a dirty look at Dr. Gallo and doesn't even ask Crawley if he wants to cross-examine before banging her gavel. "We'll stand in recess until two p.m."

* * *

Like the last time, Sarah waits until most of the crowd has pushed past her and then makes her way to the front of the courtroom. As she approaches the defense table, she overhears Crawley saying to Dr. Gallo, sarcastically, "Looks like they're all turning on you, Bob. Who's next?"

Crawley spots Sarah, and remembering her from the last time, asks, "Can I help you, young lady?"

Sarah tries to look surprised, as if she hadn't been listening.

"Oh, me? No. No thank you. I want to see Mr. Messick."

She walks over and leans across the rail behind the plaintiffs' table.

"Mr. Messick, just one question..."

Messick turns and sees that it's Sarah and hurries to finish packing to leave for lunch.

Sarah persists. "Mr. Messick, I know that it's not about the money for you. But I still want to know why?"

Messick continues to ignore her.

"Mr. Messick, if it's not the money, why are you doing this?"

When he still doesn't answer, she begs.

"Please, Mr. Messick..."

Messick walks away and disappears behind the door without turning around.

Chapter Twenty-Four

“You were the person in the United States Patent and Trademark Office responsible for approving the patent application from Dr. Gallo and the Department of Health and Human Services?”

“Yes, I was.”

“What kind of patent were they seeking?”

“There were two applications. One was for an HIV antibody blood test, and the second was for a special T-cell culture called H9 for producing the virus.”

“And when were these patent applications submitted, Mrs. Ford?”

“Can I look at my notes?”

“You may.” Judge Watts swivels in her chair to deliver her answer.

Mrs. Ford found what she was looking for. “On April 23, 1984.”

Messick does his surprise thing again. Trouble is, he’s not that good an actor, and if the jury weren’t as truly surprised as he was pretending to be, he wouldn’t be getting away with the theatrics.

“April 23, 1984? Did I hear you correctly, Mrs. Ford...April 23, 1984?”

“Yes. That’s correct.”

“Isn’t that the same day Mrs. Hartman and Dr. Gallo held a press conference to announce the discovery of the cause of AIDS?”

“Yes. The patent applications were submitted a few hours before that press conference took place, as I recall.”

“And did you approve those patents?”

“I hate to admit it, but yes, I did.” Mrs. Ford looks very ashamed of herself.

“Why do you hate to admit it?”

“Because of what I discovered after I granted the approvals.”

“Which was...”

“There were a number of things. I think you just had a witness testify that the H9 culture was a fraud – not a new culture at all, but a copy of another culture called HUT78. That made it ineligible for a patent. As far as the HIV blood test was concerned, four months earlier the French had submitted an identical patent application which I did not know about and was not told about.”

“You make it sound like you *should* have been told.”

“Yes, I should have. It was Dr. Gallo's legal and ethical responsibility, as part of his application, to tell me if there were other applications pending along the same lines.” Mrs. Ford looks at a different piece of paper in her lap. “The actual language is that he must, quote, disclose information which is material to the examination of this application, unquote. He didn't do that. Had I known about the French application, I would have handled everything differently – sent everything into what we call ‘interference,’ and not approved Dr. Gallo's application.”

“Were there any other problems with Dr. Gallo's HIV blood test application?”

Mrs. Ford rearranges her papers once again, looking for yet another sheet.

“Yes. He stated, quote, we are the original, first and joint inventors ... of the subject matter which is claimed and for which a patent is sought, unquote. That simply wasn't true. I later found out that Dr. Gallo had done extensive work with the French virus called LAV and had, in fact, used it to make the blood test he was trying to patent. He also used a lot of the work the French themselves had done to develop their own blood test, which Dr. Gallo knew about and had access to. In other words, very little, if anything, was Dr. Gallo's original work at all.”

“Anything else?”

Mrs. Ford hesitates a moment. *Yes, there is, but...*

“I'm not trained in medical research, but his application stated that he was growing HIV, quote, in healthy T cells, unquote. When I stop to think about it, I don't understand. Dr. Gallo's HIV antibody blood test is made from virus that is mass-produced in T cells that continue to grow, rather than die. So, according to Dr. Gallo himself, the virus called HIV does not kill

the very T cells it must kill in order to cause AIDS. I, personally, probably couldn't have rejected an application based on that medical inconsistency, but it still bothers me today."

"So you approved his application despite all this?"

"I didn't know any of this at the time, or I wouldn't have."

"And I believe the approval came in record time."

"Oh, yes, that's the other thing. There was a lot of pressure to get it done, and so I got it done – in thirteen months. I think that's still a record at the Office." Mrs. Ford seemed conflicted about her answer. One part of her was pleased that Messick would bring this up, and proud of her record. The other part was still lamenting the role she played in the patent approvals and wishing she could have set that record with some other application.

"Mrs. Ford, there's a lot of money to be made from a successful patent, isn't there?"

"There can be, yes."

"Any idea what this particular patent was worth?"

"The one for the HIV blood test?"

"Yes."

"Several millions of dollars a year to the U.S. government, at least."

"And the French who actually developed it didn't get anything?"

"No, not originally. But that changed with an agreement reached in 1987."

"So now the French get..."

"Half. But that wasn't true in the beginning. The 1987 Presidential agreement split 1/3rd to the French and 2/3rds to the U.S. Then later a lot of other information came out in a Congressional hearing and Dr. Gallo had to finally admit he lied on the application. The U.S. had to eat crow and appease the French again by giving them a bigger share of the royalties. So now they get half."

"And did Dr. Gallo get anything personally?"

"Yes. There was a law passed, I think it was in 1980, which allows a government employee to receive royalty payments for their discoveries up to \$100,000 a year on top of their salary.

Maybe that's increased by now, I'm not sure. I've been retired and out of the loop for a few years."

"So Dr. Gallo got \$100,000 a year for this one patent for the HIV blood test. For how long?"

"I think it's 17 years." She consults her notes again. "Yes, 17 years."

"So in 1984, Dr. Gallo himself stood to make almost two million dollars if you approved his patent application for the HIV blood test."

"Yes."

"Do you remember the movie, Mrs. Ford, called *Jerry McGuire*, and that infamous line, 'Show me the money!'"?

Mrs. Ford laughs. "Absolutely."

"So, Mrs. Ford, do you think two million dollars is enough to make someone lie to get his patent application approved?"

"Objection." The Judge has to side with me this time, Crawley thinks.

"Sustained."

"I have no further questions. Thank you, Mrs. Ford."

Chapter Twenty-Five

“Sarah?”

Sam’s voice on the intercom interrupts Sarah’s train of thought as she’s typing on her computer. She punches a button on the phone.

“Yes, Sam?”

“Sarah, come into my office.”

“Sam, I’ve got a deadline.”

“Screw the deadline. I’ll take care of that. You need to see this.”

Sarah makes sure she saved her work and then pushes back her chair and walks the length of the room to Sam’s private office. When she enters, Sam is glued to his little ten-inch TV screen. He motions to Sarah to be quiet and points to a chair he has already set up so she can watch, too.

Anchorwoman Laura Begley is on camera, summarizing the AIDS trial and the events of the last week. Sam explains what’s happened so far.

“GNN’s doing a special on the trial, and from what I hear, there’s going to be stuff you’ll want to see.”

His voice gives way to Laura’s.

“...which brings us up to the present, and it was another day of unexpected testimony, to put it mildly. With us again is Dr. Frank Keating, chief health correspondent for GNN. Dr. Keating, I guess we shouldn’t be surprised any more with what’s coming out in this trial.”

Keating and Laura are once again together in the same camera shot, but it is a different setting than the usual news desk. Both are standing, and in between them is a giant green screen where images will soon appear. Right now, it’s just the GNN logo and the special graphics developed for the AIDS Trial.

“Probably not, Laura. The past week has been one bombshell after another, all of which bode poorly for the defense. The plaintiffs’ attorney, Benjamin Messick, so far has made a number of startling revelations, all of which seem to be supported with

documentary evidence. But one of the most interesting developments is that Messick has made the personality of Dr. Robert Gallo a central issue in this trial. So we decided we'd see what we could find out about Dr. Gallo, his record and his life."

Keating now turns away from Laura and faces the camera directly, which then tightens on Keating, and Laura disappears from the screen.

"What we discovered was, well, as shocking as the rest of the trial has been, to say the least..."

As Keating talks, still shots, video clips, a birth certificate, and copies of newspaper headlines and magazine articles fill the green screen behind him.

"Robert Gallo was born in 1937 in Waterbury, Connecticut. His father was apparently a workaholic who owned a successful company. At the age of 11, Gallo's younger sister, Judith, was stricken with leukemia. Thirty years later, Dr. Gallo would be dedicating his life to finding a virus that caused this deadly cancer."

There's a picture of Gallo and Judith together, probably taken sometime in the mid-40's, looking like any normal brother and sister.

"But, prior to her death, several other things happened as a result of Judith's illness that would shape Robert Gallo's future. He would spend weeks living with relatives while his parents traveled to various hospitals with his sister. Then, after Judith's death, his father was obsessed with visiting her grave, walking from room to room in their house, holding and kissing her pictures, and forbidding any show of happiness in the family. It's clear there was no love or attention left for Robert when his sister was gone."

Keating disappears from the TV and a photograph of Gallo and his father, neither of whom looks very happy, fills the screen.

"At an annual memorial service six years after Judith's death, a tormented Robert stood up and shouted at his father, 'When will this end?' Later Dr. Gallo would recall seeing his sister for the last time, describing her as, quote, a ghost, a concentration camp victim, unquote."

Keating's really done his homework, Sarah realizes.

“After graduating from Thomas Jefferson University School of Medicine in Philadelphia, Pennsylvania, Dr. Gallo discovered that he couldn't bear to be around sick people, and found his niche instead in the research lab, going to work at the National Institutes of Health in Bethesda, Maryland...”

Newspaper clippings, headlines announcing his promotions, and views of the outside of the Laboratory of Tumor Cell Biology at the National Cancer Institute capture Sarah's attention while Keating continues.

“Thanks to President Nixon's declared 'War on Cancer,' it didn't take long for an ambitious Robert Gallo to rise to the top as head of the Laboratory of Tumor Cell Biology at the National Cancer Institute. And then it took less than ten years before he was in serious trouble.”

Keating reappears with the green screen behind him. What the viewers see, however, is the graphic *GALLO: Saint or Sinner?* projected onto the green screen.

“In 1974 an investigative panel of university scientists found Dr. Gallo's lab to be one of the worst offenders in the scandalous abuse of federal funds for cancer research.”

Newspaper headlines are superimposed over the bottom half of Keating as he talks.

“Two of his cohorts were later found guilty of embezzlement and taking secret gratuities.”

Then it's just Keating again.

“In the midst of all this, Gallo needed a miracle, and just one year later he announced the discovery of the first identified human retrovirus, which he called HI23V, and said it caused leukemia. When other scientists requested samples of his virus to test his claims, he at least on one occasion ordered his subordinates to damage the infected cells before sending them out, to make them useless for research.”

More newspaper headlines, this time on the green screen behind him.

“Finally, despite all the obstacles, it was discovered that HI23V was a mistake, a contamination in Gallo's lab, a mixture of different retroviruses from various monkeys. The virus didn't actually exist. The joke going around was that Gallo's 'human

tumor virus' was actually a 'human rumor virus.' Gallo initially tried to save his reputation, suggesting that human leukemia must be caused by one of these monkey viruses, but later retracted his claims, to his shame and dismay.”

My god, Sarah thinks. “Sam, GNN wouldn’t let Keating say all this if it weren’t true, would they?”

Sam didn’t answer, intent on listening to Keating.

“But five years later Dr. Gallo is at it again, claiming the discovery of another human retrovirus he called HTLV-1, which he blamed for causing leukemia in blacks from the Caribbean. Unfortunately, he couldn't find the virus in American leukemia patients. And prior to Dr. Gallo's discovery of HTLV-1, a Japanese research team had also found a retrovirus in some Japanese leukemia patients, and they had sent their virus to Dr. Gallo for peer review. When Gallo published the genetic sequence of his own HTLV-1, it turned out to be identical to the Japanese virus, including a deliberate error intentionally planted by the Japanese research team, just in case someone tried to steal their discovery. Although it was clear that Dr. Gallo had indeed stolen the Japanese virus and claimed it as his own, no formal charges were ever brought. Instead, Dr. Gallo was awarded the prestigious Lasker Prize as the discoverer of HTLV-1.”

“Sam, do you think he’s got proof of all this?” Sam motions for Sarah to be quiet.

“But as a scientist who worked in Gallo's lab once put it, quote, Gallo was known for this sort of unscrupulous behavior years before the AIDS virus ever came along, unquote. Perhaps the Japanese never pressed the issue because it turns out that this HTLV virus, pronounced by Gallo to be the cause of leukemia, is currently estimated to cause cancer in humans only once in every 2000 years. But thanks to the silence of the Japanese, Robert Gallo finally had a virus he could call his own, and if it didn't cause leukemia, he simply had to find a disease it *did* cause and he'd be famous.”

As Sarah realizes what’s coming, the nausea returns. She’s not sure she wants to see the rest, but knows she can’t leave. Sam wouldn’t understand.

“He first tried to suggest HTLV-1 as a possible cause of such odd diseases as Kaposi's Sarcoma and Pneumocystis carinii pneumonia, which had started to appear in gay men in the early 1980s. This was hard for anyone else to believe because, according to Gallo himself, HTLV-1 was supposed to cause leukemia, a cancer where cells are multiplying uncontrollably. Kaposi's Sarcoma and Pneumocystis carinii pneumonia are diseases where the cells are dying prematurely – exactly the opposite. Besides, there was no sign of these diseases in Japan where the HTLV-1 virus is found in at least one million people. But Dr. Gallo was desperate; he needed something that would win him a Nobel Prize. Much more than money, the Nobel Prize seems to be the force that drives Robert Gallo, and in his mind justifies any means to get the prize he so richly deserves. So when AIDS was discovered and the world needed a cause for this new, deadly disease, Dr. Gallo saw his chance for fame and glory.”

The same videotape that was shown in court of the press conference on April 23, 1984 now takes over the screen while Keating continues to narrate.

“Which brings us to the infamous press conference of April 23, 1984 when Dr. Gallo announced his discovery that a virus which would later be called HIV caused AIDS. We've heard testimony during the trial that it took an international agreement between nothing less than President Ronald Reagan of the United States and Prime Minister Jacques Chirac of France to settle the crisis Gallo had created by stealing the AIDS virus from the French. I spoke to Dr. George Mercer, who, at that time, was a research scientist at the Los Alamos National Laboratory in New Mexico.”

The press conference is replaced on the green screen with video of an interview with Keating and another man, which soon takes over the entire picture.

“Dr. Mercer, tell us what you did in 1987.”

“I compared the genetic codes of both the French virus they were calling LAV and the virus Dr. Gallo claimed to have discovered and was calling HTLV-3.”

“And what were your conclusions?”

“The codes were so similar – almost identical – that I knew they were not independent discoveries, but had to have come from the same patient.”

“You're saying that both viruses had to come from the same body?”

“Yes. From the French patient.”

“So Dr. Gallo's virus that he claimed to have discovered in his laboratory had to have actually been sent over from France.”

“That's the only explanation I can give you.”

“And did you make anyone aware of your findings at that time.”

“Yes. I sent my report to senior officials at the National Institutes of Health.”

The video interview ends and Keating is once again live on the TV.

“Even a press spokesman at the National Institutes of Health said, quote, Yeah, everybody here believes Gallo stole the virus, unquote.”

This is definitely libel and slander...unless it's all true. Sarah can't really believe it. Or is it that she doesn't *want* to believe it?

Keating has a book in his hand that he holds up. On the green screen, pages 210 and 211, supposedly from this book, are displayed large enough to read.

“Finally in 1991, in his book, *Virus Hunting*, Dr. Gallo admits that the pictures of the HTLV-3 virus he offered in his 1984 press conference were really pictures of the French LAV virus. But he now claims that these pictures were, quote, inadvertently used, largely for illustrative purposes, unquote.”

“We also heard testimony this week that Dr. Gallo had ordered one of his research assistants, a Doctor Pavlovich...” video tape of Dr. Pavlovich on the witness stand silently runs behind Keating, “...to create a fake culture, called H9, to make it more difficult for anyone else to test his theories, contending that the H9 culture was the only one in which the AIDS virus would grow. In essence, Dr. Gallo stole the culture called HUT78 from Dr. Adi Gazdar, claimed he was the developer of this new culture called H9, and then limited who had access to it.”

As the camera returns to Keating live, it also begins to zoom in closer, leaving the green screen behind and centering Keating on the TV to deliver his next few lines.

“I also found out that Dr. Gallo even refused to lend the Center for Disease Control – his own governmental peers – any samples of his HTLV-3 virus unless they guaranteed in writing not to compare it to any other viruses, obviously fearing they would discover it was identical to the French.”

The camera pulls back again to reveal the cover of what looks like an official government report above Keating’s right shoulder.

“When all of this began to surface in 1989, thanks largely to Pulitzer Prize-winner John Crewdson of the Chicago Tribune, the Office of Scientific Integrity – an arm of the National Institutes of Health – was forced to conduct an investigation. They issued a preliminary report in September of 1991, finding evidence of misconduct on the part of Dr. Robert Gallo. However, Gallo's boss at the NIH saved him from disgrace, humiliation, and expulsion by changing the final OSI report...” the green screen zooms in to focus on actual text from the OSI report, “...finding him guilty of only, quote, creating and fostering conditions that gave rise to falsified and fabricated data and falsified reports, unquote – a minor misdemeanor, in other words.”

The OSI report fades and the cover of *Science Magazine* appears....

“But Gallo had published an article in *Science Magazine* in the spring of 1985 claiming that his new virus had been, quote, isolated from a total of 48 subjects, unquote. Under later examination by John Crewdson of the Chicago Tribune, no trace of those 48 isolates could be found.”

...which then dissolves into another official-looking report cover.

“And this led to another investigation by the Office of Research Integrity of the Department of Health and Human Services. Their 1992 report found Dr. Gallo guilty of scientific misconduct – the harshest possible verdict, and a death sentence in career terms.”

The camera zooms past Keating to the green screen, which begins to list items from the findings of the O.R.I. report as Keating describes them.

“Among other things, the report found that Gallo had lied about not growing the French virus LAV in his own lab; that he had added, quote, gratuitous, self-serving and improper alterations, unquote, to an article submitted for publication by his French competitors, to make the article favor his own hypothesis about the AIDS virus; that, quote, Dr. Gallo must bear substantial responsibility for the numerous discrepancies, including four instances of scientific misconduct, unquote, in papers published by *Science Magazine* in 1985; and that, quote, especially in the light of the ground-breaking nature of this research and its profound public health implications, the Office of Research Integrity believes that the careless and unacceptable keeping of research records reflects irresponsible laboratory management that has permanently impaired the ability to trace the important steps taken, unquote. They also called some of Gallo's key research, quote, *of dubious scientific merit*, unquote, and, quote, *really crazy*, unquote.”

Keating looks up as his image returns to the TV screen, obviously having just read from his notes. He pauses, and even shakes his head a little, almost as if he didn't believe what he had just read, either.

“Even Congress got involved in 1994, under the direction of Representative John Dingell and his Subcommittee on Oversight and Investigations of the House Energy and Commerce Committee.”

Sarah is beside herself. What is this? 60 Minutes? How did Keating put all this together in a day or two?, she wonders.

“The driving force behind the committee's staff report was Dr. Alfred Gilman, a Nobel Prize winner in medicine, who accused Dr. Gallo of, quote, intellectual recklessness of a high degree, unquote. The Dingell Report focused on many of the things we've already discussed and included Gallo's perjury in his HIV blood test patent application. We heard testimony in court just today that closely aligned with the Dingell Report, which stated that...”

The cover of the Dingell report becomes the background while the various quotes appear on top.

“...Dr. Gallo had failed to disclose to the Patent Office that scientists at the Pasteur Institute of Paris had already performed, quote, extensive work, unquote, with the AIDS virus and had used it to make an HIV blood test of their own and submitted a patent application four months before Gallo's. Despite a legal obligation to disclose all information material to the claim of inventorship of the blood test, the report says that Gallo failed to inform the Patent Office of his use of the French virus in the preparation of his own blood test.”

When Keating's face returns to the screen, there's almost an excitement evident, as if he were now getting some pleasure out of exposing Gallo to the world. Or was it because he knew what was coming next?

“When this Dingell Report was made public, Dr. Gallo was forced to leave the National Institutes of Health in disgrace. But not for long. In 1993, a review board of lawyers – not scientists, mind you – *lawyers* had serendipitously changed the definition of ‘scientific misconduct.’ No longer able to convict Dr. Gallo of anything more than the misdemeanor already on his record, the government dropped all the charges. Gallo, of course, claimed total vindication. But not everyone found him so innocent. For example, if the highest honor for scientific success is to be awarded the Nobel Prize, the second highest honor is membership in the National Academy of Sciences. Dr. Gallo's nomination was rejected six times. He was finally admitted in 1988, six years after winning the Lasker Prize for the discovery of a virus he didn't discover, and even then it had to be done through a special nomination process.”

A TIME Magazine cover now occupies the green screen.

“TIME Magazine has described Robert Gallo as quote brash, competitive, and vain, unquote. In 1998, German virologist Stefan Lanka called Gallo, quote, an American scientific gangster who had committed so many crass, self-aggrandizing blunders in the previous decade that he could not really be relied upon to tell the time correctly, unquote. The Nobel Prize-winning chemist,

Dr. Kary Mullis, considers Gallo and his followers, quote, so stupid they're to be pitied, unquote.”

Suddenly there is a complete change of scene. A person is seated with their face concealed and not looking directly into the camera. Keating is nowhere to be seen, but his voice continues.

“One former employee, who requested that their identity remain secret, said this about Dr. Gallo's laboratory...”

The voice is rough and deep, obviously mechanically altered to protect the identity of the speaker.

“It was a den of thieves. It resembled a medieval Italian town with its intrigues and capricious purges.... It was hard to be an honest person in that place.... I know of three employees who committed suicide.... I'm just surprised somebody hasn't killed someone there.”

Keating is back and addressing the camera.

“According to another source, Gallo once told a lab member that he liked to hire foreigners because if they didn't do what he wanted, he could deport them. When Frank Ruscetti, a cell biologist, asked why *he* was being fired, Gallo replied, quote, ‘Well, because you're getting too much credit,’ unquote. But Gallo didn't seem to stop there. At a 1987 meeting in Geneva, Switzerland, he accosted the author of a book that was not complimentary to Gallo, pulled an envelope from his pocket, and said, quote, I have here a five-step program to destroy you, unquote.”

Behind Keating is now a picture of the Chicago Tribune reporter, John Crewdson.

“Gallo also tried to discredit veteran reporter John Crewdson, who was hot on Gallo's trail, by calling the Bethesda police and claiming Crewdson had broken into his house. The police found no evidence and the investigation was dropped.”

...which is then replaced by a picture of Dr. Anthony Fauci.

“Even one of his closest friends and a long-time colleague, Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, had this to say about Robert Gallo...”

The quote takes over the TV screen.

“Bob will run you over. He has this 'screw you – I'm the best and you're full of crap' attitude. He doesn't give a good bleep-damn who he pushes around, or pushes aside.”

Keating is back, by himself.

“In 1996, when his \$100,000-a-year royalty payments were nearing an end, Dr. Gallo left the National Cancer Institute and went on his own, getting the state of Maryland to put up nine million dollars and the city of Baltimore to add three million more to open the Institute of Human Virology, which he currently runs.”

Pictures of the Institute of Human Virology fade in and out like a slideshow.

“The sweet part of the deal is that Dr. Gallo has carte blanche to take whatever discoveries he makes and market them through a private company, named Omega Biotherapies, of which he is the founder and part owner, and which will pay him very handsome royalties for his so-called discoveries.”

The camera pulls back from Keating to reveal Laura still standing there by his side.

“Laura, after discovering all of this, I only have one remaining question about Dr. Gallo. Now that he is in the private sector, with no one to steal from any more, can Dr. Gallo discover anything on his own? A former co-worker said, quote, I've never known him to have an idea that didn't come from someone else, unquote.”

Laura looks a little stunned. She obviously had not seen or heard this report in full, and for the first time, she appears speechless. But her instincts as an anchor take over.

“Thank you Dr. Keating, I think. It's not a very pretty picture that you paint of the man we have believed for the last thirty years when it comes to AIDS and HIV. Was all this buried deep in some cave where no reporter could find it until now?”

Keating shook his head. “I wish I could take credit for uncovering this, Laura, but I can't. The information has been out there all along, but no one has wanted to deal with it, or didn't know what to do with it, I guess. I just put everything into one piece, that's all. But that one piece looks pretty bad.”

Laura still doesn't know exactly what to do next.

“Well, okay, Dr. Keating. Good work. And that concludes our special report for tonight....”

Sam punches his remote to turn off the TV and finally looks directly at Sarah, who is completely pale.

“Sarah, are you alright?”

“I’m alright...just a little nauseous. Must have been something I ate for lunch.”

“You certainly don’t look alright.”

When she doesn’t answer, Sam knows that he’s made the right decision.

“Sarah, I’ve decided to get you some help on this trial.”

“I’ve told you before, Sam, I don’t need help, thank you.”

“Well, Sarah, I disagree. You should see yourself right now. And I need more on this trial than you’re giving me. I just can’t get all the dirt from watching GNN. I need to be breaking some of it in the Tribune.”

Sarah nods in the face of the truth. She knows she’s in trouble.

“I know this is not an easy assignment for you, for many reasons, but I really don’t want to pull you off the story. I just want to give you an assistant, and I suggest you take my offer. His name is Gene. He’s fresh out of college...hired him last month. He’s bright and willing and full of energy. Put him to work, digging. And start digging deep.”

Sarah nods again, and then gets up to leave.

“All right, Sam. Thanks.”

“Oh, and Sarah...”

As she turns to look at him, his voice becomes soft and gentle and caring, once again like a father to his daughter.

“Try not to take all this so personally.”

Sarah nods and walks out of Sam’s office, gets to her desk, turns off her computer, picks up her coat and leaves. *I’m in no condition to write that column now.* She pushes the ‘down’ button and waits. When the elevator arrives, she enters, chooses Lobby, leans against one wall and starts sobbing.

Chapter Twenty-Six

All three voices are coming through the speaker at once.

“Hey,” Messick shouts. “One at a time!”

“Well, I just can’t believe how much help we’re getting,” the speakerphone says.

“No shit! How about Keating’s exposé on Gallo? My god! We couldn’t have asked for anything more,” another voice chimes in.

Messick is excited, too, but still cautious. “What’s that old saying, the truth shall set you free? I think the truth has finally caught up with our Dr. Gallo. But remember that the jury didn’t see that TV show, and I just hope I presented enough of the story for them to reach the same conclusions that GNN did.”

“Oh, hell yes, Ben, you did! And it’s about time the world found out who Gallo really is!”

Messick is a little surprised to hear the familiar third voice express such optimism and emotion; he was usually the most conservative of the four.

“Besides, they’ll have all the supporting documents and printed reports to review in their deliberations,” one of the other voices adds.

But Messick knows this trial is a long way from being over. “Okay, guys. Let me check with everybody. Do you think I’ve made the point with the jury that HIV is not, cannot be, and could never be the cause of AIDS?”

“I think so.”

“Frankly, I can’t imagine anything else you could do at this juncture that you haven’t done already. If they can’t see that HIV is just something Gallo invented for his own glory, then something’s wrong with our jury system.”

“I want to bring Harrison back from the CDC later, to get more statistics on the record about HIV, and whether or not it’s contagious and infectious, and so on. But I was thinking it might not be bad to do that near the end, as a kind of summation, and a reminder to the jury. What do you think?”

“I think that’s a great plan.” *Okay, that’s one.*

“Sounds like a winner to me.” *That’s two.*

Messick wants to make sure it’s unanimous. “And how about you, Tom?”

“Yeah, Ben, I think so. I also think it will help when you get to the point of offering evidence of what *is* the cause of AIDS, if it’s not HIV. But I know we have to wait a little for that.”

“Okay, if we’re all agreed, tomorrow I start on AZT.”

“Onward and upward.”

“Go get ’em, Ben.”

“We’re behind you all the way, my friend.”

Chapter Twenty-Seven

Sarah shows her press badge to the security guard, as she did every time she entered the courtroom. Her new assistant, Gene, does the same and then follows her to the seats reserved for the Arizona Tribune. The place is packed, as usual; and as soon as Judge Watts takes her seat, Messick is up and ready to go.

“Your Honor, I want to shift gears at this time and move into a new section of our case, which mostly involves the other two defendants, the Food and Drug Administration and the drug company, Burroughs Wellcome. And I'd like to start by calling Dr. Jules Hoffmann.”

Sarah hasn't fully recovered from her emotional crisis the previous night, but she's determined to see this assignment through to the end. Besides, she's got an assistant now, and she'll be damned if she's going to look unprofessional in front of this kid. She takes out her yellow pad and focuses on the matter at hand: Messick and Hoffmann.

“Dr. Hoffmann, where were you employed in the early 1960's?”

“At that time it was called the Michigan Cancer Foundation. It's now called the Karmanos Cancer Institute.”

“And what was going on there in 1960 and '61?”

“A lot of things, but I assume what you're most interested in is that we had some grant money from the National Cancer Institute to try to develop drugs that would improve chemotherapy for cancer patients.”

“And were you successful at that?”

“It depends on how you define ‘successful.’ We came up with some new drug compounds, yes.”

“Was one of those compounds called AZT?”

“Yes. That was one of its names. It was also called Compound S at one point, or zidovudine, or azidothymidine, and later it sold as Retrovir.”

“Is it okay if you and I just call it AZT while we're talking this morning?”

“Fine with me. That’s what most people call it.”

Messick actually feels more comfortable with this part of the trial than he did the first part. He had focused most of his research on AZT and knew exactly what he wanted the jury to hear from his witnesses. He leaves the lectern and wanders over to lean on the railing that separated the jury from the main courtroom floor.

“So, Dr. Hoffmann, it would be safe to say that you were familiar with this drug, AZT, and how it works.”

“Mr. Messick, I created the drug. In all modesty I can say that there isn’t anyone in the world who knows AZT as well as I do.”

I wish all my witnesses were as good as this one. “Dr. Hoffmann, did AZT work as a cancer therapy?”

“Well, this compound did indeed kill cancer cells in very large numbers, yes.”

“But was there a problem?”

“Yes, because it also killed other healthy cells in equally large numbers.”

“In other words, it was highly toxic.”

“It was much too toxic to give to a human being, yes. It would kill the patient at the same time it was killing the cancer.”

“In fact, Dr. Hoffmann, isn’t AZT so toxic that every bottle had to carry a warning label that features the poison symbol of a skull and crossbones, and says, among other things, ‘Toxic if swallowed, wear suitable protective clothing’?”

Dr. Hoffmann’s affirmative answer is lost as a muffled chuckle ripples through the spectators, most of whom were probably imagining someone wearing protective clothing while swallowing their AZT pill. It *would* have been funny, if it weren’t so tragic.

Okay, jury, here’s the first thing you need to pay attention to.

“Why was AZT so toxic? What does AZT do in a human body?”

“Before I answer that, Mr. Messick, let me explain again what I was looking for. I was trying to develop drugs that would kill cancer cells. We have traditionally believed that cancer cells were cells that are multiplying too rapidly – there are too many of

them, and they form a tumor. Ironically, the easiest way to stop cells from multiplying too fast is to stop them from dividing. So AZT was designed to destroy dividing cells that were producing cancer tumors. AZT was, however, indiscriminately cytotoxic, which meant that it would destroy *any* dividing cells – even healthy ones – by interfering with the reproduction of DNA.”

In case you missed it, jury...

“Let’s make sure I understand. The drug you developed called AZT killed virtually all the human cells it came into contact with that were trying to reproduce themselves, good cells as well as bad cells, correct?”

“That is correct.”

“Did you ever try to do anything with this drug, like get FDA approval for its use?”

“There was no way it would pass Phase 1 of an FDA approval.”

“And Phase 1 is what, Dr. Hoffmann?”

“Phase 1 is basically proving that the drug is safe for a human to take – that it does more good than harm to a patient.”

“And AZT didn’t qualify because it did more harm than good?”

“Yes.”

“So you dropped it.”

“Yes. We put it on a back shelf someplace.”

Messick left the jury rail and returned to the lectern to check his notes.

“In what year was this?”

“Let’s see...1964, I believe.”

“And what happened to AZT for the next twenty years? Did you know?”

“No, I didn’t know. I totally forgot about it. I assume it stayed on that shelf where it belonged.”

“And when was the next time you heard about AZT?”

“When Burroughs Wellcome submitted it to the FDA for approval as a treatment for AIDS. I heard about it then.”

“Did this surprise you?”

“Well, yes, of course.”

“Why?”

Hoffmann wasn't holding back or trying to avoid giving straight answers. He had already decided for himself he would provide all the information he could about AZT, since he didn't want it on his own conscience.

"Why was I surprised? For several reasons. Obviously, we had already found the compound too toxic for human use. Secondly, it was a drug to treat cancer by killing large numbers of cells in a human body, and my understanding at the time was that AIDS was a disease in which there were already too many cells being killed. So why would you give someone with AIDS a drug that killed more cells than almost any other drug ever invented? And thirdly, Burroughs Wellcome didn't come up with this drug in the first place. I did."

"But I don't understand. How could Burroughs Wellcome submit AZT to the FDA if *you* developed the drug?"

"I developed the drug on a government grant, so I never owned the rights to the compound myself. The government did. - It's called 'works for hire.' And by 1985, the compound was in the public domain. What I think happened..."

Crawley is out of his seat immediately. "Objection. Pure speculation is about to come out of this witness's mouth, I can tell...."

Judge Watts holds up her hand to stop Crawley before he finishes. "Mr. Messick?"

"Your Honor, yes, that's true to a certain extent. Dr. Hoffmann might not have proof of all the things he's about to say, but I do. If he says what I think he's going to say, I have here..." holding up a stack of papers from his table, "...all the documentation that will be needed to back up his 'speculation,' as Mr. Crawley calls it."

"Your Honor..." Judge Watts once again silences Crawley and then pauses to consider the objection. Finally, she looks at the plaintiffs' attorney. "I'll allow you to continue on that basis, Mr. Messick, on one condition. After Dr. Hoffmann has finished his speculation, if Mr. Crawley wants to object again and you can't provide the proof needed, I'll throw out that part of his testimony. Understood?"

“Yes. Thank you, Your Honor. Dr. Hoffmann, please continue with what you think happened.”

“It was 1985. Dr. Gallo had announced that he had found the cause of AIDS. Every drug company in the world wanted to find a treatment – a cure, if possible – and claim not only the fame and glory, but also the incredible financial rewards that would follow. Burroughs Wellcome was one of the biggest and best drug companies in the world. And somewhere inside that company was a brilliant mind who said, ‘While our research department tries to come up with a new drug, why don’t we see if there’s a drug that’s already been developed somewhere that would work against this HIV.’ They found my AZT sitting on the shelf, claimed it for themselves, and sent it around to various labs for testing. And low and behold, they were told that AZT destroyed infected HIV cells. So they submitted it to the FDA as a treatment for AIDS.”

“Did anyone challenge Burroughs Wellcome for the ownership of this drug?”

“Oh, yes. There were several lawsuits, and it got really messy at times. But they eventually won the all-important ‘key use’ patent in 1988.”

“Again, I don’t understand. If you knew that AZT was too toxic to put in a human body, why would you fight for the patent to use it against AIDS?”

“Look, the only thing on people’s minds at that time was finding anything that would get rid of the HIV. AZT did that. Who wouldn’t want to have a piece of the action?”

“But AZT killed so many healthy cells at the same time, especially the all-important T cells of the immune system....”

“All I can tell you, Mr. Messick, is that the research environment created by this deadly epidemic made it easy for all of us to overlook the side effects and concentrate on the positive results of killing infected HIV cells.”

“But what if HIV had nothing to do with AIDS?”

“Dr. Gallo said it did, and we never considered any other possibility.”

Messick looks toward the defendants’ table and repeats, “Dr. Gallo said it did, so it must be true.” He then returns to the

plaintiffs' table where there are stacks of papers placed neatly in different piles. He picks a report off one of the stacks and reads it for a moment. "But, Dr. Hoffmann, you're not the only one who knew that AZT was far too toxic for human consumption, were you?"

"Probably not."

"In fact, Dr. Hoffman, there were a number of studies that clearly demonstrated the effects of AZT in patients, weren't there?"

"I believe so, but I'm not necessarily familiar with all of them."

"Well, Dr. Hoffmann," Messick glances back at the papers in his hand, "are you familiar with a French study in 1988 on hundreds of AIDS patients taking AZT, which found that one-third of those patients experienced a worsening of their AIDS condition, others developed new AIDS opportunistic diseases, and one out of five patients taking AZT died within nine months?"

"I don't know whether I have seen that particular study or not, Mr. Messick."

Messick puts down those papers and picks up others off a different stack. "Well, how about an English study, also in 1988, of thirteen AIDS patients, all of whom developed severe anemia on AZT?"

"Don't know about that one, either."

Again, Messick puts that study back and chooses another. "1990, in Australia, more than half the patients taking AZT developed a new AIDS opportunistic disease during the first year, half of them needed blood transfusions to survive, and one-third died within eighteen months."

By this time, Hoffmann has realized that Messick doesn't really want an answer, so he doesn't offer one. And Messick doesn't wait for one either, as he continues picking up report after report from his table.

"A Dutch study in 1990 found that three-quarters of the patients on AZT died within fourteen months...."

Messick pauses for a second and looks at Hoffmann. "Of course, Dr. Hoffmann, these were all foreign studies, and maybe

the studies done here in the U.S. got totally different results. What do you think?"

"I don't know, Mr. Messick," but I assume you're going to answer your own question very soon, so why don't I just shut up and let you have the stage.

Messick silently reads yet another report, and then another, and another. "Oops, I guess I was wrong. Let's see, in 1994, right here in the United States, one study found twice as much dementia in AZT-treated patients. Another study says that HIV-positive hemophiliacs taking AZT had a 2.4 times higher mortality rate and a 4.5 times higher AIDS risk than HIV-positive hemophiliacs who *weren't* taking AZT. In 1995 a study found that HIV-positive male homosexuals on AZT had anywhere from two to four times the risk to develop *Pneumocystis carinii* pneumonia – PCP...." Messick puts all those papers down and sees one on the far corner of the table. "And it says here, Dr. Hoffmann, that usually only three percent of AIDS patients get lymphoma, a deadly cancer. But fifty percent, I repeat *fifty percent*, of those patients taking AZT in the original FDA Phase 1 approval trials developed lymphoma within three years, if they lived that long." Messick points to one particular stack on the table. "All in all, Dr. Hoffmann, these studies show that at least twenty-five percent *more* patients die if they are taking AZT, and they die thirty-three percent faster than non-AZT patients. Were you familiar with any of these studies?"

"A few," was all that Hoffmann wanted or needed to say.

Messick looks at the jury and decides that's enough. Then he sees a note on his yellow pad and changes his mind. "Dr. Hoffmann, even Paul Volberding, who was one of the earliest and biggest proponents of AZT, wrote a report in 1994 saying that the T cells of a placebo group – those taking a sugar pill, essentially – had increased gradually over a two-year study, while the T cells of those taking AZT had decreased. And Volberding finally admitted in 1995, and I quote, 'AZT does not significantly prolong either AIDS-free or overall survival.'"

Messick looks at Hoffmann to give him the chance to comment if he wants. Apparently, he doesn't want. Messick puts

down all the papers and returns to the lectern, glances once again at his notes, and prepares for the kill.

“Dr. Hoffmann, you said that you knew AZT was too toxic to put into a human body, that even if it could kill the HIV or other ‘bad’ cells, it would kill many more good cells in the body at the same time, including the very important T cells of the immune system. In other words, AZT would destroy a human’s immune system.”

“Yes, I said that.”

“Dr. Hoffmann, if you had given AZT to a healthy person back in the 1960’s, when you first developed the drug, what would have happened to them?”

“I’m not sure what you’re asking, Mr. Messick. I thought I had answered that question.”

Messick stares at the witness, wondering if he’s being coy. “I’m asking what would happen if you gave someone who was *not* sick AZT? How would their body respond over time?”

“Oh. Well, as the AZT began to destroy healthy cells, they would get sick. They wouldn’t feel very good.”

“Like what? What kind of symptoms would they have?”

Hoffmann thinks for a minute. “For one thing, I would say they would start to have headaches and get sick to their stomach, vomit, probably some diarrhea.”

“Anything else?”

“Possibly pain in their neck and back from muscle degeneration, maybe also in their legs.”

“Anything else?”

“If they kept taking it? Well, then they’d start to lose their hair, also lose weight and get very weak and anemic.”

“Those sound just like the symptoms of AIDS, Dr. Hoffmann. And if they kept on taking the AZT, what would happen next?”

“Well, Mr. Messick, like these studies reported that you just read, if they took AZT long enough for it to destroy the T cells of the immune system, they would then develop any number of opportunistic diseases.”

“How long would that be, Dr. Hoffmann?”

“How long would they have to take the AZT? Oh, I’d say maybe just a couple of years. AZT is *very* toxic, Mr. Messick.”

Messick looks at the jury. Here it is, ladies and gentlemen, the keynote of the case.

“So let me understand, Dr. Hoffmann. If someone – anyone, even a very healthy person – were to take AZT, as far as you’re concerned, over an extended period, the AZT itself, as cytotoxic as it is, would eventually cause *immune deficiency* and they would get very sick, is that correct?”

“Yes, that’s correct.”

“And from this immune deficiency, the patient would get various opportunistic diseases.”

“Correct.”

“And modern medicine would call that *immune deficiency syndrome*, wouldn’t it?”

“Yes, that’s correct as well.”

“And, Dr. Hoffmann, since this immune deficiency syndrome was the result of taking a drug, it would properly be called *acquired immune deficiency syndrome*, otherwise known as ‘AIDS,’ is *that* correct?”

Hoffmann nodded first, and then realized he had to verbalize his answer. “Yes, that’s correct, Mr. Messick.”

“So, is there any conclusion we could possibly reach, Dr. Hoffmann, other than the fact that AZT causes AIDS?”

Hoffmann doesn’t answer. He doesn’t want to. He’d rather not testify to the fact that, even though he technically did nothing wrong, he was the one who developed the drug that eventually caused AIDS in hundreds of thousands of American men and women.

When Hoffmann doesn’t answer, Messick turns from facing the jury and looks again at his witness, then back at the jury, then back at the witness. He decides that the jury got the point and that Dr. Hoffmann doesn’t need any more guilt heaped on his shoulders.

“Thank you, Dr. Hoffmann. Your witness, Mr. Crawley.”

Chapter Twenty-Eight

"I was the Chairman of a panel that was asked by the Food and Drug Administration to consider allowing the drug AZT to be sold as a treatment for AIDS."

"When did you meet?"

"In January of 1987."

Messick considered Dr. Broad to potentially be one of his best witnesses, and, he hoped, a powerful influence on the jury.

"Dr. Broad, did the panel discuss whether or not the virus called HIV caused AIDS?"

"No, that was not our job. Our job was strictly to decide whether the drug AZT should receive FDA approval to combat AIDS."

"But wasn't AZT being submitted as a treatment for AIDS because it killed the HIV?"

"Yes."

"It wouldn't have been a treatment for AIDS if HIV didn't cause AIDS, then, would it?"

"No, but that question was not within our scope of consideration. We assumed HIV caused AIDS, based on what Dr. Gallo had said, and that was it. We were there to consider a treatment for HIV."

Want to make sure I keep putting all this back in Gallo's lap...but let's get the jury focused on the FDA now.

"Okay. Dr. Broad, how does a new drug like AZT get approved by the FDA?"

"First, it has to go through different phases of study and experimentation."

"Let's start with Phase 1."

"Phase 1 is pretty simple. You have to prove that the drug is not harmful to human beings, that it is not so toxic that it does more harm than good."

"That's what Dr. Hoffmann just said, the previous witness. Did you hear his testimony?"

"No, I'm sorry. I didn't."

“That’s alright. So to your knowledge, was that true of AZT – that it did more good than harm?”

“You know, our panel didn't really deal with Phase 1. We concentrated on the Phase 2 trials. And you don't go to Phase 2 unless you've passed Phase 1. So I guess we assumed that AZT had passed Phase 1.”

Dr. Broad had brought a large folder with him to the stand. He began leafing through it.

“Did you bring some notes with you, Dr. Broad?”

“Yes, these are the original notes I took as Chairman of the committee. I haven’t looked at them for a while, and I was curious what, if anything, we might have said about Phase 1.”

“I’ll give you a minute if you want....”

“Yes, thank you.” Dr. Broad reads through a few pages of his folder. “Yes, here it is.... Apparently one of the things we discussed...oh, yes, now I remember. One of the things we discussed were some laboratory experiments published by Dr. Barry, Dr. Broder, and Dr. Bolognesi, not realizing at the time that they were all part of Dr. Gallo's inner circle, called the ‘Bob Club.’ They claimed to have proven that at least 1,000 times as much AZT was needed to kill T cells in a person's immune system as was needed to kill the virus causing AIDS. That meant a doctor would feel totally safe giving small quantities of AZT, knowing he couldn't harm the patient.”

“Was this true? Were the experiments done by Barry, Broder, and Bolognesi accurate?”

Dr. Broad reads further in his notes.

“Apparently not. Six independent studies published since then have found that AZT kills the immune system’s T cells just as fast as it does a virus. In fact, the real toxicity of AZT is 1,000 times higher than we were told at the time.”

“Forgive my ignorance, but wouldn't it be all right to kill some T cells if we are killing all the HIV at the same time? At least we’d be getting rid of AIDS.”

“The problem is, depending on who you listen to or believe, that only 1 in 500 T cells, or 1 in 10,000 T cells of an HIV-positive person is infected with HIV. So AZT must kill hundreds,

or even thousands of *good* T cells to kill just *one* cell infected with HIV. That's not very good pharmacology."

Messick knows immediately that the jury got lost in the numbers.

"We're getting pretty technical now, Dr. Broad. Let me get back to the original question. You never saw the actual Phase 1 test results for AZT?"

"No, we didn't."

"And you didn't ask for them?"

"No, we didn't. My mistake. I should have."

That's nice of you to take the blame, but you're not who I want the finger pointing to.

"Dr. Broad, here's what I'd like to know. AZT was first developed in the 1960's in an attempt to find a treatment for cancer, correct?"

"From what I understand, yes."

"It was never submitted to the FDA for approval at that time, was it?"

"No, not to my knowledge."

"Do you know why?"

"No, I don't."

"Our last witness, Dr. Hoffmann, told us that it flunked Phase 1 in 1964. That's why it never went into Phase 2."

"That would make sense."

"So, with absolutely no change in its chemical formula, how did it suddenly pass Phase 1 in 1986, twenty-two years later?"

"I can't answer that question. I don't know."

Honest answer. Messick checks to make sure he's covered everything he wants to about Phase 1. He has.

"Okay. Dr. Broad, let's move on to the Phase 2 trials for AZT. When did those trials start?"

"In February of 1986."

"What's involved in a Phase 2 drug trial?"

"It's called a double-blind study. That's where you take a certain number of volunteers who have the disease the drug is supposed to treat and you divide them into two groups. One group gets the drug and the other group gets sugar pills, called placebos. Basically the group taking the drug has to show

significant improvement over the placebo group to prove that the drug has value in treating the disease.”

“It sounds like these kinds of double-blind studies have to be closely regulated and performed according to some pretty strict standards.”

“Yes, absolutely. At least, they're supposed to be.”

Oh yeah? Well let's find out...

“Were the AZT double-blind studies done according to those standards?”

“No. And we knew that at the time the panel met.”

“What did you know, Dr. Broad?”

“Well, first of all, the study was tainted from the very beginning because Burroughs Wellcome, who was submitting AZT for approval, paid \$10,000 for each patient – a total of three million dollars – to the research clinics. As far as I know, that's what's called a conflict of interest. At least, it makes it very difficult for the research clinic to be totally objective in its findings.”

“I would think so.”

But, my good friends in the jury, that's just the beginning. Messick seems like he's even enjoying this.

“Secondly, the Phase 2 trials were supposed to last six months. This one was called off early. Only 15 patients – 5% of the original 300 – completed the full 24 weeks of treatment. Twenty-three patients were treated for less than four weeks. On the average, patients had received treatment for about 17 weeks at the time the study was aborted.”

“Why was it aborted?”

“Supposedly there were 19 patients in the placebo group that had died in those 4 months, to only 1 patient in the AZT group. The Director of the study said that it was unethical to continue to withhold AZT from any patients – especially the patients in the trial – when it was obvious that AZT was so effective against AIDS.”

“Was this true?”

“Well, we knew there were some real problems with this. For one thing, The Director of the study also admitted that an undocumented number of patients were permitted to take other

medical drugs during the study, and the effects of these other drugs were never taken into consideration.”

Messick stops and looks at every juror to emphasize this point as he summarizes that last statement.

“You couldn't isolate which drug was doing what – good or bad?”

“Correct.”

“Anything else?”

“The death rate in the placebo group was unusually high – so much so that it raised questions on its own. Even patients with AIDS outside the studies weren't dying in those numbers, at those percentages, in that short amount of time. Something had to be wrong. And then the causes of death provided to the FDA from the various study groups did not match those listed in the research report later printed in the New England Journal of Medicine. That seemed fishy as well.”

“If that were not enough, weren't there even more problems with the Phase 2 trials, Dr. Broad?”

“Oh, my, yes. I've just gotten started. In a double blind study, for example, neither the patient nor the doctor is supposed to know if the patient is getting the drug being tested or a placebo. Well, this study became ‘un-blinded’ on both sides within just a few weeks....”

* * *

At the far end of the newsroom, Sam can see Sarah walking toward her office with an older woman in tow. She shows the woman to a chair and is obviously asking her to wait, and then she makes her way to Sam's office, knocks on the open door and lets herself in before being invited, more excited and animated than Sam had seen her in a long time.

“I've got it, Sam. I've got the scoop you wanted, and I'll have it ready for tonight's paper.”

“Why aren't you in court?”

“Gene's covering for me. I accidentally found this woman...”

“What does she do?”

"It's not what she does, Sam. It's what she *did*. I've got to get this interview done...this story is hot, Sam."

Sarah tries to leave quickly but Sam stops her, understandably cautious.

"Whoa, Sarah...stop...come back."

Sarah turns around.

"Sit. Sit for a just a minute."

Sarah sits, but not very willingly.

"Tell me first, before you go racing off. What's this big story?"

"Sam, those Phase 2 double-blind AZT studies were not that at all...there was no way they could be called 'double blind.' Everybody in both groups knew what everyone else was taking – doctors *and* patients – and because of the rumors, no one wanted to be in the placebo group...they all wanted to be taking AZT."

"But that's supposedly impossible to find out when you're in a study like this – who's taking what – isn't it?"

"That's where this woman comes in, Sam. Almost all the patients in these Phase 2 trials were secretly sending their pills to outside labs to be analyzed, to find out what they were taking, so they could make sure they were on AZT. That woman is one of the ones who did the testing."

"How did you find this out?"

"Dr. Broad had just finished testifying about this, and I was headed to the ladies' room during a recess, when this woman walked up me and said, 'You know, he's absolutely right. I'm one of them.'"

"Okay. So?"

"Sam, she said that if the patients found out they were on a placebo, they would get AZT on the side, because everyone was saying how it could cure them of AIDS and no one was monitoring the use of other drugs during the trials. After a while, there was hardly anybody left in the placebo group that *wasn't* taking AZT also. There wasn't any control group, really. The whole thing had fallen apart. And on top of that, many in the original AZT groups had to be taken off the drug because it was causing such awful side effects. It's almost as if the two groups switch sides over time."

“All right. Okay, it's a good story. Go get it!”

Sarah jumps up and rushes toward the door.

“Oh, and Sarah...”

She stops in her tracks again and turns back to Sam.

“Congratulations on the scoop.”

Sarah smiles, lets Sam's compliment sink in for a moment, and then literally runs through the newsroom back to her office.

* * *

“Dr. Broad, as Chairman of this panel, you refused to vote in favor of the approval of AZT.”

“That's correct. I did. As Chairman of the panel, after all we had heard, I could not in good conscience approve the use of AZT.”

Messick lets that one sink in with the jury. He just stands at the lectern, silent, for a minute.

“Were there reasons other than all the problems with the Phase 2 trials that you described before the recess?”

“That's not enough?”

The brief laughter stops before Judge Watts can pick up her gavel.

“Well, let me see.... Two members of my panel were paid consultants for Burroughs Wellcome, the very drug company seeking approval for AZT. The FDA forced me to allow them full voting privileges on the panel anyway, even though I considered that to be a blatant conflict of interest. On top of everything else, there were no studies done on mice, as is routine for FDA approval. And I was concerned that if we approved AZT on these very premature, very poor test results, it would be even more difficult to get better data in the future.”

“I believe you were quoted as saying it was like ‘letting the genie out of the bottle.’”

“I think I did say that, as a matter of fact.”

Dr. Broad now realizes that he's proud of himself and the stand he took, and although he didn't remember that exact quote, he was glad he said it and happily took credit for it.

“And did the rest of your panel agree with you?”

“Actually, yes.”

Messick stops because he knows what’s coming next and wants it to have a real impact. “They all voted ‘No’ on AZT?”

“No. But they were going to, until the late afternoon. When it appeared that the majority of us were not going to approve AZT, the FDA sent over a big gun to literally beg everybody for their vote. And Burroughs Wellcome reassured us that they would provide a very detailed two-year follow-up study, and in the meantime they would not allow AZT to be used for anything except a stop-gap measure for very sick patients.”

“And is that what actually happened?”

“No. By the time that two-year study was up, AZT was already in 60 countries, being given to more than 20,000 people.”

Okay. Time to ‘show me the money’....

“At how much per patient?”

“Conservatively, about \$8,000 per patient per year.”

“So that’s 160 million dollars a year for Burroughs Wellcome.”

“Actually, I think they probably made more than that, so that’s a conservative estimate, yes.”

“160 million dollars a year....” Messick again pauses at the lectern before continuing. “In the end, Dr. Broad, how many of your panel voted against approving AZT?”

“Only me. And when it was all said and done, it was one of the blackest days of my life. We had approved AZT faster than Thalidomide had been approved in the mid-60’s, which ended up causing massive birth defects. But Burroughs Wellcome received full licensing for AZT within 6 months, and even got special permission to sell it to a wide market – *not* just very sick patients – while it was waiting for final approval.”

“Dr. Broad, let me read a statement from another famous AIDS researcher, Dr. Joseph Sonnabend, one of New York City’s first and most reputable AIDS doctors, who said, quote, ‘I’m ashamed of my colleagues. I’m embarrassed. This is such shoddy science; it’s hard to believe nobody is protesting. Damned cowards. It’s all about money, just following the party line and not being critical when there are obviously financial and political forces that are driving this,’ unquote.”

Dr. Broad looked squarely at Messick. “Damn. I wish *I* had said that.”

* * *

“My name is Dr. Harry Barrow – B-A-R-R-O-W. I am a molecular biologist, and in 1989, I was the scientific editor of the journal called *Bio/Technology*.”

“Dr. Barrow, one of the main AIDS researchers, a Dr. Jay Levy at the University of California, San Francisco, said in a *Newsday* article, and I quote, ‘I think AZT can only hasten the demise of the individual. AIDS is an immune disease and AZT only further harms an already decimated immune system,’ unquote. Do you agree?”

“Absolutely. I can't see how this drug can do anything other than make people very sick. AZT kills T-4 cells – white blood cells vital to the immune system. It does that by seeking out any cell that is engaged in DNA replication and killing it. And the place where most of the cell replication is going on is in the bone marrow – where the white blood cells of the immune system are created. In short, AZT will destroy anyone's immune system, even the healthiest of athletes, within 4 years – two to three years on average. And if a person is already sick, it'll be more like a year, year-and-a-half tops. And if they don't have AIDS when they start taking AZT, they'll die of AIDS very quickly as AZT kills their T cells.”

“Dr. Barrow, do you know how many people died in 1987, the first year that AZT was being given to AIDS patients?”

“No, I don't.”

Messick holds up a paper from the lectern and reads, “4,135. How about 1988?”

“Don't know that either.”

Still reading from the same paper, Messick announces, “4,855. Not that many more than 1987, but now we have people who have been taking AZT for over a year. And do you know how many deaths there were in 1989, two years after AZT was prescribed as the treatment for AIDS?”

Barrow shakes his head.

“14,544 – almost three times the number in ’87 and ’88.” Messick puts down the paper and looks at Dr. Barrow. “Did no one put this together, Dr. Barrow? Was no one able to see the correlation between the introduction of AZT and the incredible rise in AIDS deaths two years later?”

“Not the right people, obviously.”

Messick just stands at the lectern, shaking his head in amazement. “And why, Dr. Barrow, would the government announce on August 17, 1989, that people who were HIV-positive should start taking AZT, even if they had no symptoms of any disease?”

“I have no idea. In all my years in science, I had never seen anything so atrocious. The so-called studies that announcement was based on were so badly done! If AIDS were not such a popular political cause – a money-making and career-making machine – these people could not have gotten away with that.”

“Do you know of anyone, anywhere who has survived taking AZT for any extended period?”

“The longest surviving AZT recipient I know of – taking full-strength AZT as their only therapy – died in three and one-half years. On the other hand, there are thousands of people who have survived with HIV for over 20 years now, as long as they didn't take AZT.”

“We're going to talk to some of them shortly. Thank you, Dr. Barrow.”

Chapter Twenty-Nine

“So it looks like there were quite a few problems with the Phase 2 trials for AZT. Back to you, Laura.”

Laura Begley is in her usual place behind the GNN news desk at the headquarters in Atlanta.

“Thank you, Rick. Rick Mann from the Federal Courthouse in Phoenix, Arizona, the site of the now infamous AIDS trial. Also with us again is Dr. Frank Keating, GNN's chief health correspondent. Dr. Keating, do you have any more information about the Phase 2 AZT trials?”

“Well, Laura, not about the Phase 2 trials, no....”

Apparently Laura wasn't in the loop any more and didn't know the script. Keating not only had his own camera again, but this time had his own set as well.

“That was covered fairly extensively in today's testimony. But we heard Dr. Broad, the chairman of the FDA panel that approved AZT, also express his concern about the follow-up trials – those two-year studies that Burroughs Wellcome promised his panel. With me tonight is Leslie Grissom.” Keating reads from a note card on his desk. “From September of 1987 to March of 1990, Leslie was the Data Manager for one of the follow-up trials conducted at the Syracuse, New York clinic – the ones that led to the widespread prescription of AZT to HIV-positive individuals who were not sick. Is that correct, Leslie?”

“That's correct.”

Leslie Grissom is seated with Keating at a desk covered with stacks of paperwork. She looks and speaks like an Army sergeant, and is obviously obsessive-compulsive about detail.

“What exactly was your job?”

“I was supposed to collect all the data, to put together all the results of the drug trials and fill out all the necessary reporting forms and such.”

“And you say that you had some problems doing that?”

“That's an understatement. I would say that the data which came from the Syracuse site was absolutely worthless.”

“Why?”

Leslie is clearly pleased that she’s finally getting to publicly express her indignation and displeasure after so many years. She’s also quite happy with all the attention.

“The level of medical incompetence, unprofessionalism, unethical, dishonest, corrupt, illegal and immoral behavior was shocking and inexcusable. The data was so inaccurate and so full of holes that I often compared it to Swiss cheese. I felt like I was trapped in the middle of an awful movie about mad scientists. If there was a rule that could be broken, they broke it!”

Keating’s not sure what he’s gotten himself into. She seemed like she had some important information, but can he pull that out of her through all the emotion?

“Can you be a little more specific?”

“Well, both the Principal Investigator and the Study Coordinator – a doctor and a nurse – seemed to be more interested in enrolling as many patients as possible than they were in the research itself. Of course, they got \$10,000 a patient from Burroughs Wellcome, so you can understand why. This led to subjects being routinely admitted to the program who failed to meet the eligibility requirements.”

“Such as...”

“I remember several cases.” Grissom looks at the stack of papers on the desk in front of her, finds what she wants, and begins to hold up handfuls of different reports each time she makes a new accusation. “One of the criteria was that all patients had to be HIV-positive, of course, to test the effectiveness of AZT. Well, I remember a female patient enrolled whose *husband* was HIV-positive, and she took the study drug for three weeks before anyone realized *she* was HIV-negative. She was also on oral contraceptives at the time, which was another eligibility violation. Then there was another patient enrolled who didn't have an HIV test at all, and another one whose test results were dated a month after his enrollment.”

“But that's not a serious breach of the study. That's just sloppiness, perhaps...?”

“Well, then, how about this?” She finds more papers in another stack. “Incorrect lab tests were routinely ordered – either

required labs omitted or unrequired labs ordered by mistake – and the wrong prescriptions were routinely written. When I questioned these, and other similar mistakes, I would be chastised by the Principal Investigator and the Study Coordinator for being too ‘nit picky,’ or for inappropriately questioning someone's medical expertise.”

Keating is now sorry his staff ever found Grissom. If she would just calm down and present the facts without all the personal crap she’s adding to it.

“Anything else?”

Grissom looks at the stacks of documentation in front of her. “Have you got an hour?”

Oh my god, no, is what Keating thought. “No,” was all he said.

Grissom decides what she wants to talk about next and holds that up in the air as she speaks. “Well, let me just list a few of the worst cases. Deaths were being reported as what was called a ‘first event,’ even though there were clearly opportunistic diseases that came before the deaths. That changed the test results dramatically. There were countless unreported diagnoses, opportunistic infections, symptoms, concomitant medications, and adverse reactions. Lab results were routinely transcribed incorrectly onto the research forms by the Study Coordinator. Informed consent forms were routinely backdated, sometimes weeks or even months after enrollment. In at least one instance, a patient was asked to sign an informed consent form for the wrong study.”

How do I calm this woman down?

“I can see how all of this would affect the results of the drug trials. But these are still basically all paperwork mistakes.”

Grissom looks wounded, as if she wasn’t being believed – *again*. “Oh, trust me, the incompetence wasn't limited to paperwork. I personally witnessed a patient experience a severe toxic reaction to the study drug...”

Keating interrupts. “The study drug being AZT...”

“Yes, a severe reaction to the AZT. She had to be hospitalized for five days for what is called Grade IV toxicity. But no one – no doctor or nurse – showed any responsibility for,

or any knowledge of, or any interest in, or any recognition of the importance of the explicitly defined adverse reaction and dose management steps and procedures outlined in the protocol. In other words, instead of being taken off the AZT, her dose was simply reduced, in complete violation of protocol requirements which require discontinuation of the study drug.”

Okay, there’s something concrete. Let’s try to stick with this, shall we?

“So what did you do about all of this?”

“Finally, in March of 1990, I couldn't sit by and watch any more. I resigned, and later I turned in a report to the FDA with all this documentation.”

“What happened to your report?”

“I’m not sure. I did get a phone call right away, thanking me for bringing these issues to their attention, but saying it would be unnecessary for me to forward copies of my documentation to the Site Monitor or to the National Institutes of Health. They also stated that they couldn't act directly based on my claims or supporting documentation, but that they would keep a close eye on the Syracuse site. The phone call ended by saying that they may not even need to call me again, except to clarify something. In other words, ‘don't call us, we'll call you.’ I never received a call from their office or anyone else associated...”

Chapter Thirty

“Mrs. Monterey-Adams, with all due respect, may I simply call you Mrs. Adams, or Dr. Adams?”

“At one point early on in our marriage, Mr. Messick, I detested being called simply ‘Mrs. Adams.’ But today, it’s different. And I don’t use the prefix *Doctor*.”

Messick takes that as permission. “Thank you. Mrs. Adams, please tell the court who your husband was.”

“My husband was Arvel Adams.”

“And just in case there’s someone who doesn’t recognize that name right away...”

“Arvel Adams was a professional tennis player.”

“In fact, your husband was ranked #1 in the world at one point, wasn’t he, Mrs. Adams? He was the first African-American to be ranked #1 in the world and also the first African-American ever picked for a U.S. Davis Cup team, wasn’t he? He won three Grand Slam singles titles: the U.S. Open, the Australian Open, and Wimbledon. And he was inducted into the Tennis Hall of Fame in 1985. Is that not right?”

“Those are a few of his accomplishments, yes.”

Messick had debated a long time about calling Mrs. Adams as a witness. He didn’t enjoy putting widows in this position, and he knew he might even have to exert pressure on her for some of the answers he needed. But to bring her in front of this jury, a few of whom were certain to recognize the name at least, and to follow her up with his next witness, was bound to have a major impact on this case. As distasteful as it might be, he kept telling himself that 300,000 American men and women had died, and then made his choice on their behalf. Besides, he told himself, this was a strong woman in her own right, with such dignity, a brilliant and award-winning photographer, the recipient of not just one, but two honorary Doctorate of Fine Arts degrees, and perfectly capable of taking care of herself.

“So it’s fair to say that your husband was a superb athlete.”

“Yes.”

"But what happened in 1988, Mrs. Adams?"

"Arvel was diagnosed as HIV-positive."

"How did the doctors say that he had gotten HIV?"

"They said it was during a blood transfusion."

"When would that have been?"

Mrs. Adams had been through all this so many times in the past dozen years. "In 1983, maybe a little earlier."

"So he had lived at least five years before knowing he was HIV-positive?"

"Yes."

"Did he ever show any symptoms of having AIDS during that time?"

"Well, in 1988, he went to the hospital and they found out he had something called toxoplasmosis. It was a very rare disease."

"But it's not AIDS."

"No."

"But the toxoplasmosis was the reason they tested him and how they found out he was HIV-positive?"

"Yes."

"So from the time he got the blood transfusion in 1983 that supposedly gave him the HIV, until 1988 when he tested positive for HIV, he did *not* show any symptoms of AIDS, is that correct?"

"Yes, that's correct."

"Mrs. Adams, what happened to his toxoplasmosis?"

"Oh, it went away very quickly. It was not really a problem."

"But his HIV was, wasn't it?"

"Yes, it was."

"Mrs. Adams, in 1989, did Mr. Adams start taking AZT on the recommendation of his doctor to treat his HIV?"

"Yes, he did."

"And after he started taking the AZT, did he then start having symptoms of AIDS?"

"It was not long after that, yes."

"And when did he die?"

"February 6, 1993."

"Did he continue taking AZT until the day he died?"

"Yes."

Messick wants to give both Mrs. Adams and the jury a little break before getting to the real reason why she is there. He pretends to have trouble finding something on his table, a newspaper neatly folded to the correct page. Just before Judge Watts starts to admonish him about the time, Messick turns back to the witness, newspaper in hand.

“Mrs. Adams, I want to read you something your husband wrote in the *Washington Post* in October of 1992. He said, quote, ‘the confusion for AIDS patients like me is that there is a growing school of thought that HIV may not be the sole cause of AIDS, and that standard treatments such as AZT actually make matters worse,’ unquote. Did he ever confide in you that he had doubts about his AZT treatment?”

“Yes, he did.”

After watching some of the trial on TV, she was afraid this is where Messick wanted to take her. But there was nothing she could do. She wasn’t going to lie, but she would do everything in her power to minimize the damage that might be done to the AIDS charity work her husband had started before his death.

“What kept him from stopping the AZT, Mrs. Adams?”

“He was very concerned. He used to say to me, ‘But what will I tell my doctors?’ There was a lot of pressure on him to take AZT.”

“Mrs. Adams, in fairness, we should mention that your husband had heart problems, too, didn’t he?”

“Yes, he had two unexpected heart surgeries, one in 1979 and one in 1983.”

“But his heart isn’t what killed him, is it Mrs. Adams? That was over by 1983, and he didn’t die until 10 years later.”

“No, sir. He died from the HIV, not his heart.”

Messick jots something down quickly on his yellow pad, and then looks up again, straight into the eyes of Mrs. Adams.

“Was it the HIV he died from, Mrs. Adams, or was it the AZT he took for his HIV?”

“Objection. Asking for this witness to draw a medical conclusion.”

Crawley is standing, waving his hands, pointing at Messick, and not liking at all where this is going.

“Your Honor, Mr. Crawley wasn't on his feet objecting when Mrs. Adams just offered a medical conclusion that her husband died from HIV. I'm simply asking Mrs. Adams if she would consider a different conclusion in her own mind.”

Judge Watts is slow to answer. “Since we allowed one medical conclusion, Mr. Crawley, I'm going to allow the other as well. Mrs. Adams, you may answer the question.”

Mrs. Adams took a deep breath. She had hoped the Judge would save her. *I just don't want to say anything more than I absolutely have to.*

“Please repeat the question.”

“Mrs. Adams, you said your husband died from HIV. I asked whether it might have been the AZT he died from, rather than the HIV?”

“I don't know, Mr. Messick. I'm not an M.D. I'm a Ph.D.”

“Mrs. Adams, I have to say the same thing to you I said to the Judge: you didn't hesitate to draw a medical conclusion when you said, and I quote...” Messick looks at the note he took a few minutes ago, “‘he died from the HIV.’ So let me ask you again: Isn't it possible that your husband died from taking AZT rather than from the HIV?”

Mrs. Adams drops her head a little. “I suppose that's possible. I really don't know.”

“Well, Mrs. Adams, was your husband dying before he was diagnosed as HIV-positive?”

“No.”

“And you said he had been HIV-positive for at least 5 years, correct?”

“Yes.”

“With no signs of AIDS for those five years?”

“Correct.”

“Did he show signs of dying between the time he was diagnosed as HIV-positive in 1988 and the time he started taking AZT in 1989?”

“That wasn't that long a time, Mr. Messick. But the answer is No.”

“So he only started dying after he started taking AZT?”

He really hated this. As strong and independent as she was, Mrs. Adams was starting to look confused and disturbed, and perhaps ready to cry. Messick realizes for the first time that despite what she and Arvel had discussed, she probably never seriously considered this possibility; and now the implications were enormous.

“Mrs. Adams, your husband only started dying after he started taking AZT, is that correct?”

When it was clear that Mrs. Adams was in no condition to answer Messick’s question, Crawley did the only thing any gentleman would do. He came to her defense.

“Objection, Your Honor,” although he would be hard-pressed to give Judge Watts any grounds for his objection. Fortunately, he didn’t have to. Messick didn’t need an answer to the last question.

“That’s okay, Mr. Crawley. I withdraw the question. I’m sorry, Mrs. Adams.” Hoping to apologize in the only way he could at the moment, Messick admitted, “Your husband was a great man, and he will always be a hero of mine. And I confess to having a lot of anger at the people who killed him...”

“Objection.”

Judge Watts bangs her gavel loudly.

Messick turns away. “I have no further questions.”

* * *

“My name is Marvin Jackson.”

“But most people know you by a different name, don’t they?”

“Yeah, most people know me as ‘Marvin, The Master.’”

“The basketball star.”

Jackson smiled. “I had a few good years on the court.”

That had been obvious the moment Marvin, The Master, had walked into the courtroom. His six-foot-nine frame still seemed in perfect condition, as if he could put on a uniform today and score twenty-plus against the best of them. With all his good looks and his charm, Messick had been surprised his TV show never worked.

“Mr. Jackson, the drug company called GlaxoSmithKline, known previously as Glaxo Wellcome, and before that as Burroughs Wellcome – one of the defendants in this case – has paid you fairly large sums of money over the years for doing commercials for them, haven't they?”

“Yes, they have.”

“So you're naturally reluctant to be a witness and say anything that might jeopardize that relationship, aren't you?”

“Just a minute ago I swore I'd tell the truth, Mr. Messick. And I will.”

I'm counting on that, Mr. Jackson.

“And I appreciate that. But you came here based on a subpoena, and not on your own free will, didn't you?”

“Yes, I did.”

This man deserves a lot of respect, regardless.

“Well, Mr. Jackson, I want to make it as easy as I can for you, recognizing that you have to testify or you'll be in contempt of court. I will try to ask you very straightforward questions that you can say Yes or No to, for the most part, and GlaxoSmithKline will have to recognize that you had no choice but to answer me honestly. I'll even ask the Judge to designate you as a hostile witness, if you would prefer.”

“Let's see how it goes, Mr. Messick.”

“All right, Mr. Jackson.” He looks at his yellow pad full of questions. “In November of 1991, something almost ruined your basketball career, didn't it? Please tell the court what that was.”

“I went to get a marriage license and the blood test came back saying I was HIV-positive.”

“Were you sick at all at that time?”

“No.”

“In fact, you were beginning another season of playing professional basketball, weren't you?”

“Yes.”

“I imagine it would be very difficult to play professional basketball if you were sick with AIDS.”

“Is that a question, Mr. Messick?”

“No. But this is: What did you do when you found out you were HIV-positive?”

"I asked a few people in the medical profession what to do."

Messick looks at his notes again. "Isn't it true that you asked none other than..." reading from his pad, "...Dr. Anthony Fauci, who was the director of the National Institutes of Allergic and Infectious Diseases for the National Institutes of Health, and David Ho, now director of the Aaron Diamond AIDS Research Center in New York, along with your personal physician?"

"I am very fortunate to have access to some of the best minds in the country, yes."

"And their collective wisdom recommended that you do what?"

"To take AZT to treat my HIV."

"And did you listen to them and start taking AZT?"

"Yes, I did."

I hope the jury can keep all these dates straight.

"Just so we keep our dates straight, Mr. Jackson, that would have been in November or December of 1991, is that correct?"

"If you say so."

"And how long did you take AZT, Mr. Jackson?"

"I don't remember exactly."

"Well, are you taking it now?"

"No."

"Did you take it for, let's say, five years?"

"No."

"Did you take it for even one year?"

"No."

"As a matter of fact, it was common knowledge that you did start taking AZT, but you have never wanted to say publicly whether you ever stopped taking it, or exactly how long you took it, have you?"

"It's not anybody's business, really."

Wait a minute...has GlaxoSmithKline been paying Jackson not to talk about when and why he stopped taking AZT? Have they been paying for his silence? I know he's gotten a lot of money from them, and I've never seen all the commercials that money would have paid to make...but I can't go there, since I don't know what answers I'll get to those questions. Things are

going far too well to take that kind of a risk now. Better stick to the game plan.

“Mr. Jackson, isn’t it true that as soon as you started taking AZT in November of 1991, you got sick?”

“Maybe. I can’t remember.”

“Well, I can refresh your memory if you like, Mr. Jackson. You were diagnosed HIV-positive in November of 1991, and by that December the press was already writing, and I quote, ‘The Master Reeling as Worst Nightmare Comes True – He’s Getting Sicker,’ unquote. So it took less than a month for you to get sick after starting to take AZT, Mr. Jackson?”

“Apparently.”

“You were also quoted as saying you had ‘lost your appetite’ and ‘suffered from bouts of nausea and fatigue,’ and quote, ‘I feel like vomiting almost every day,’ unquote. Was this true?”

“Yes, I remember that now.”

“All within one month of starting to take AZT?”

“Objection. Asked and answered.”

“Sustained.”

“I’ll ask a question that you didn’t answer before, Mr. Jackson: I imagine it would be very difficult playing professional basketball feeling this way, wouldn’t it?”

“Yes.”

“In fact, did you have to stop playing basketball for a while in December because of the sickness that started after you began taking AZT?”

“Yes.”

Messick walks back to the lectern that he had vacated a few minutes earlier to spend some time closer to the jury. He flips through a few yellow pieces of paper, reads something, and then continues.

“But, Mr. Jackson, it says here...,” pointing to his note pad, “... that you played in the NBA All-Star game in February of 1992, just six weeks after you had described yourself as very sick; and not only did you play, but you were awarded the Most Valuable Player of that game. Have I got that right?”

“Yes.”

“Well, here's what I don't understand, Mr. Jackson,” and he delivers the next few lines looking at the jury rather than at Jackson, “you were too sick to play basketball in December of 1991, and you had just started taking AZT less than a month earlier. In February, you're back on the court, playing at the top of your game again. If you were still taking AZT at the time of the All-Star game, it means that AZT had worked wonders for you. This should have been the very best advertising that Burroughs Wellcome could have dreamed of. Imagine...a basketball star of your stature, diagnosed with HIV, took AZT, and now look at him, folks. He's MVP of the NBA All-Stars! Don't you think that would have tripled the sales of AZT overnight?” He whirls around again to look at Jackson. “Did Burroughs Wellcome ask you to make a commercial like that, Mr. Jackson?”

“No, they didn't.”

Messick's back at the lectern, reading. “Well, how about six months later? You played on the 1992 U.S. Olympic Basketball team and won a gold medal. Did they ask you to make a commercial for them then?”

“No, they didn't.”

“They didn't want you to just stand there, holding your gold medal, while they talked about what AZT can do for all the other HIV-positives in the world?”

“No.”

“*I* would have. But let's jump ahead to the 1995-96 basketball season. You came out of retirement to play professional basketball again, didn't you?”

“Yes, I did.”

Messick reads some more notes. “In fact, you almost got a triple-double, and even ended the season with some pretty impressive stats. You must not have been sick then. Were you sick then, Mr. Jackson?”

“No, I wasn't.”

“When you came back out of retirement to play again in 1995, did Burroughs Wellcome finally come to you then, asking you to make a commercial for AZT, as the MVP of the 1992 All-

Star game, the Gold Medal Winner in the 1992 Olympics, and now healthy enough to play professional basketball again?"

"No."

"No?" Messick seems incredulous. "Do you know why they didn't?"

"No, I don't."

Messick drops his voice. There's no need to role-play now, no reason for feigned surprise. Jackson is trapped in the corner with nowhere to throw the ball.

"I think you do, Mr. Jackson. I think it was because you stopped taking AZT sometime between December of 1991 and the All-Star game in February of 1992, just two months later, and as soon as you stopped taking AZT, your health came back almost immediately and you were able to play again with no problems. That would have made it a little hard for you to make a commercial singing the praises of AZT, wouldn't it, Mr. Jackson?"

"No comment."

"In fact, Mr. Jackson, the joke going around the NBA in early 1992, was quote, 'there's no magic in AZT, and there's no AZT in The Master.'"

There's some laughter in the courtroom, which the Judge gavels silent.

"Thank you, Mr. Jackson. I have nothing further." And out of old habit, "Your witness, Mr. Crawley."

Everyone is surprised to see Crawley get up from his chair.

"Mr. Jackson, I don't have any questions. I just wanted to tell you what a pleasure it was to watch you play basketball."

Crawley sits down again as the Judge looks at him very strangely.

"Carry on, Mr. Messick."

Sarah knows she can't hold it back any longer. She excuses herself as she walks down the row in front of all the other reporters from the Tribune and makes her way out of the courtroom to the ladies' room. While she kneels on the floor, head in the toilet, vomiting uncontrollably, Messick tries a fast break.

“Your Honor, I am about to call a half-dozen witnesses – all of them family members of those who had developed AIDS and were symptomatic. They all had some sort of active opportunistic disease and were prescribed AZT as the treatment. And they all died in less than two years.”

Is there some possibility this might work?

“Then I am going to call about a dozen witnesses who will tell essentially the exact same story as Mrs. Adams a few moments ago, that a member of their family was diagnosed as HIV-positive, and although they were *not* sick – they had *no* symptoms of AIDS – they began taking AZT on the advice of their doctors and on recommendation from their friends and family. Within two to three years, they too were all dead.”

What a coup if Crawley goes for it...

“I will then call another dozen or so witnesses like Master Jackson, who themselves were diagnosed as HIV-positive, perhaps tried taking AZT for a very short time under pressure from their doctors and family, but for one reason or another stopped – or never started – taking AZT, and are alive today to tell us their story.”

Okay, let's see what happens...

“Now, Mr. Crawley has been so intent on saving this court so much time, I thought perhaps we could skip all these witnesses if Mr. Crawley wanted to agree that the drug AZT actually creates the very disease it is supposed to treat – AIDS.”

Judge Watts is so impressed with Messick's moxie that she goes along with him. “Mr. Crawley?”

Crawley whispers something in the ear of Dr. Gallo, sitting next to him, and Gallo whispers something back. Mr. Gladstone, the attorney for Burroughs Wellcome/GlaxoSmithKline, is beside himself. Crawley tries to calm him down as he pushes back his chair and stands.

“Your Honor, I would ask for a brief recess to confer with my clients.”

“How brief, Mr. Crawley?”

“15 minutes should be plenty, Your Honor.”

“Very well. Court is recessed for 15 minutes.”

Chapter Thirty-One

The layout of the new Federal Courthouse building didn't lend itself very well to a quick private conference. Crawley and his entourage could leave the Special Proceedings Courtroom, go down the stairs and across the atrium to the public elevators, and then up to another floor to find an empty office to meet, but that in itself would probably take 15 minutes, even if they could succeed in getting past the media on the way. The only real alternative was the cafeteria right there on the second floor, which wouldn't be private, or the fitness center next to the prisoner cellblock. Crawley chose the latter.

When everyone had crowded in around the free weights and exercise machines, Crawley motions for an aide to close the door. The defense team is obviously coming apart, and sides are being taken. There's a small group of lawyers in one corner expressing their disagreements with Crawley to each other, while three of his younger team try to come to his defense. Dr. Gallo, seemingly as smug as ever, sits on one of the chest-press benches and waits. Finally, Crawley gets everyone to quiet down.

"All right. We haven't got much time. Here it is in a nutshell. We can stipulate that AZT causes AIDS..."

Mr. Gladstone, the lawyer from Burroughs Wellcome/GlaxoSmithKline, jumps up, visibly upset. "That's handing them the case on a silver platter!"

Crawley ignores the interruption. "...or we can sit on our hands and watch as he pounds the jury with witness after witness."

Mr. Fogerty, representing the FDA, finally verbalizes what everyone else in the room is thinking, without making it sound like he's attacking Crawley.

"Isn't there some way to stop this?"

Crawley has wondered the same thing. He felt like he started something, like a runaway train, that he didn't know how to stop.

"I can't think of any legal way at the moment. If we had more time..."

“Or a different leader!” The quiet voice comes from somewhere in the group, but no one knows exactly who had said it. Or if they did, they weren’t saying.

Now on the defensive, Crawley lets his own frustrations out and tries to shift the blame to where it really belongs. “I’m afraid that we all listened to Dr. Gallo for too long in the beginning of this case, apparently like the whole country may have listened to him for too long about HIV!”

Virtually all the lawyers in the room look at each other in amazement as Crawley admits that he himself no longer believes Gallo’s version of AIDS – currently being called the ‘HIV hypothesis’ by the media. Of course, that shouldn’t matter to anyone or affect Gallo’s defense, but it was still somewhat of a shocker to hear it spoken aloud. What might Crawley say next?

“There’s no question we’re in big trouble...”

...which brings a number of side comments, like “That’s an understatement,” and “Glad he finally figured that out.”

Crawley knows he has to do something quickly, just to keep his own team together.

“All right, calm down. We just need to buy some time to regroup. *I* need to figure out a way to postpone this case for a while, let the jury forget a lot of stuff, and give us a chance to start over with a fairly clean slate. And this time we’ll put on a real defense. But right now I need a vote from everyone. Do we stipulate that AZT causes AIDS, or do we walk the plank with Messick’s witnesses?”

Chapter Thirty-Two

She just couldn't take any more.

Sarah left Gene to cover the trial and went shopping, hoping to escape the pain and the sickness that was enveloping her. Right now, she's standing in the mall, in line at Starbucks, waiting for her tall double latte with soymilk. But wouldn't you know it, there are TV monitors all over the mall, and all of them tuned to the trial. *Apparently As The Stomach Turns can wait for a while. That's okay; I'm sure the trial will be over long before SueAnne finishes delivering that baby.*

Although she refuses to watch, and tries not to listen, Sarah can't help but hear Crawley decline to stipulate that AZT causes AIDS, and Judge Watts instructs Messick to call his next witness. Sarah finds an empty table and sits down to enjoy her coffee and bran muffin. But there's no escaping it; the sound of Messick's voice permeates the entire mall. He is questioning an older woman whose son died from AIDS in 1989, and she is describing her son's condition near the end.

"...the lesions from the Kaposi's Sarcoma were so ugly."

"Your son was a homosexual?"

"Yes."

"Mrs. Bennett, do you know whether he used something called 'poppers'?"

"I'm not sure, Mr. Messick. What did they look like?"

"They used to be glass vials that had a smaller neck you broke off to get to the amyl nitrite, which made a popping sound when you broke it – hence the name 'poppers.' Then they started to come in small brown bottles."

"Well then, I guess so, because after he was gone, I found a lot of little brown bottles in his room. Why?"

If Sarah had been watching instead of just listening, she would have seen Crawley, looking puzzled, asking Dr. Gallo 'Why?' as well.

"That's fine for now, thank you. Mrs. Bennett, when did your son start taking AZT?"

"I think it was in February of 1989."

"Not long after he got sick with the KS – Kaposi's Sarcoma?"

"I think so. It's been a long time ago to remember those kinds of details, Mr. Messick."

"I know, Mrs. Bennett, and I appreciate how hard you're trying." He pauses for a second. He is very conscious of the time; he's got a lot of witnesses to get through, and he didn't want the jury to get tired or bored, much less the Judge. "Did the AZT make your son's KS lesions go away?"

"No. They were with him until shortly before he died."

"I know this is difficult, ma'am, but you brought a picture of your son not long before he died?"

"Yes, I did."

Messick picks up a poster-size photograph showing a very disturbing picture of her son and puts it on an easel in front of the witness and the jury.

"I hope you don't mind, but I had it enlarged so it was easier for the court to see."

Mrs. Bennett winces a little, seeing her son's deformed image bigger than life.

"When did your son die, Mrs. Bennett?"

"In November, 1989."

"About 9 months after he started taking AZT?"

"Yes."

"Mrs. Bennett, in your non-professional opinion," Messick looks across at Crawley to make sure he heard the disclaimer, "as his mother who saw him every day for those nine months, do you think the AZT helped him?"

Suddenly, Sarah has lost her appetite for even the coffee and muffin. She gets up, dumps them both in the trash, and starts walking down the mall to shop as Mrs. Bennett tries to answer the question through her tears.

"He never got any better, Mr. Messick. He only got worse, even taking the AZT. The AZT obviously did not cure him – he's dead. It didn't seem to help him at all, either. It didn't act like any treatment I know of. I mean if the AZT would have even made the time he had left a little better – given him a little more quality

of life for the last few months – it would have been worth it. But I can't say the AZT helped at all. And from what I'm hearing these days, I'm beginning to think the AZT hurt him instead. A lot."

* * *

At least in the store, Sarah didn't have to listen to the trial. But she could only stay in that particular shop for so long, and now she's walking back into the mall with several packages of new sweaters for the winter at the mountain cabin in Payson in her arms. And there's Messick again, this time with a brother of an AIDS victim.

"No, Mr. Messick, Matt never had any symptoms. My brother was never sick, ever."

"But he turned out to be HIV-positive."

"Yes."

"And did he start taking AZT?"

"He resisted it for a long time. He hated taking drugs. But there was so much pressure from our doctor, and from our parents, that he finally gave in."

"And what happened?"

"Pretty soon he was pretty sick."

"In what way?"

"He was sick to his stomach, nauseated, you know. Then he got weak and couldn't stay up very long. And he complained about the pains in his back and his legs. He started losing weight. He looked horrible, actually."

Sarah starts walking down the mall again, looking for someplace else to hide from it all.

"How long did this go on?"

"Well, he just kept getting worse and worse for about a year."

"Then what happened?"

"Then he died, Mr. Messick."

Sarah turns into a shoe store.

* * *

Sarah finally emerges from Hi-Health with her bag of new sweaters, another bag of new shoes, and now a bag of vitamins and supplements as well. The problem is she doesn't feel any better. In fact, she feels worse than ever; and once again she has to listen to another witness's testimony as she walks down the mall toward the exit. It was Terri Simmons of Miami, Florida.

"In January 1992 we found out my husband was HIV-positive.... The hardest part was to face my beautiful and adorable one-year-old girl. They told us she was condemned to die.... The only way out of that despair, of that suffering, was to kill ourselves. There was no other solution for us. It would end the pain and the nightmare right at the beginning.... Two weeks later my test result came out – I was HIV-NEGATIVE! So, it meant that my baby girl was negative too. Now my husband was the only one of us condemned to die.... Our marriage was falling apart. We had no sex life for two years. My husband did not want to take any chances of contaminating me. The only sure way was abstinence.... Less than two months after he was diagnosed as HIV-positive, my husband started with the symptoms of AIDS: diarrhea, nausea, weight loss, and so on. The strange thing was that the symptoms began right after he started taking AZT. He was feeling so bad, so sick, that he decided, against his doctor's will, to stop taking AZT. All of a sudden, like magic, no more symptoms. He was healthy and normal again, and remains so ever since."

Toward the end of Mrs. Simmon's testimony, the sound started to reverberate in Sarah's head. She finally runs the last hundred feet out of the mall and collapses with her bags on a bench outside. Although the TVs can't reach her anymore, the words of Terri Simmons are ringing in her ears. She falls forward, catching her head in her hands and letting them both fall to her lap. Her body trembles for a minute. Finally, she pulls herself together and takes out her cell phone.

"Sam, it's Sarah. Maybe you were right...." Sam obviously says something like, "Right about what?" on the other end. "Well, maybe I shouldn't be the one covering this case for you.... I know, but it's taking its toll.... Remember when you told me not

to take it all so personally?" Sarah starts crying. "That's not easy for me to do, Sam."

Sarah thought she could make it through a quick call to her boss to ask for the rest of the day off. But she can't. She starts sobbing uncontrollably, and it's a long time before she can speak again. Sam apparently has been waiting patiently on the other end of the line. Or maybe he's been talking the whole time. "...Yes, Sam, I'm depressed." And then her sarcasm finds its way to the surface. "How can you tell?"

Sam must be concerned and asks where she is. "I'm at the mall.... Yeah, I think I need to take the afternoon off, if that's okay.... Yes, Sam, like someone once said, when a woman gets depressed, she either eats or goes shopping. Well, I'm doing both.... No, Sam, I don't know what men do when they get depressed...." Despite everything that was going on inside her, Sarah couldn't help but laugh at the answer, as tragic as it was true. According to comedienne Elayne Boosler, when men get depressed, they invade another country.

* * *

"I live in a studio and my bathroom is just a five-step walk from my bed. After starting to take AZT, I would just lie in bed for hours; I couldn't get up to take those five steps to the bathroom. When I was taken to the hospital, I had to have someone come over to dress me. It caused that kind of severe fatigue... the quality of my life was pitiful... I've never felt so bad.... Then I stopped the AZT and the mental confusion, the headaches, the pains in the neck, the nausea, all disappeared within a 24-hour period. That was 15 years ago...."

"Thank you, Fred. No further questions."

As Fred leaves the stand, Messick addresses the Judge.

"Your Honor, we've heard from the families of those diagnosed and sick with AIDS, who took AZT and died very quickly, most of them within a year. We've heard from the families of those diagnosed as HIV-positive who were sick, but not with AIDS, who took AZT and died a year or two later. We've heard from the families of those diagnosed as HIV-

positive who were *not* sick – had no symptoms of AIDS or anything else – who took AZT and died in two to three years. We’ve also heard from those diagnosed both with AIDS and HIV who did *not* take AZT and *lived*, some of them for more than 20 years now. There's only one other group to hear from – those diagnosed with either AIDS or HIV, who took full-strength AZT by itself for three years or more and lived. Unfortunately, they won't be able to testify today, because there isn't any one left in this group. They all died.”

“Objection! Inflammatory!”

Judge Watts bangs the gavel as hard as she can to restore order.

“Not now, Mr. Messick. Save that kind of remark for your closing argument.”

“I'm sorry, Your Honor. Then that's the last witness in this section.”

Judge Watts looks at her watch. “Seeing as how it's almost four on a Friday afternoon, we'll recess until Monday at nine a.m.”

Chapter Thirty-Three

Bill Meadows is seated on the sofa in the living room watching the six o'clock news on GNN. Rick Mann has just finished another of his reports from the Federal Courthouse in Phoenix, and anchorwoman Laura Begley reappears on the screen.

"Thanks, again, Rick. By this time, I shouldn't be shocked, I guess. But I still am. Dr. Keating, our chief health correspondent, is with us again tonight. Help me out, Dr. Keating. Tell me that what the plaintiffs are claiming about AZT after all these years just isn't so."

The camera finds Keating at his usual desk.

"I wish I could, Laura. However, to the contrary, I have someone joining us from Minnesota to tell her own story." He turns to a large TV screen in the studio, in the style of Nightline. "Cathy?...Mrs. Nyles, are you there?"

The head and shoulders of Cathy Nyles comes to life on Keating's screen.

"Mrs. Nyles, tell us about your daughter, Lucy."

"Well, Dr. Keating, we adopted Lucy from Romania when she was just a newborn baby and brought her to the United States when she was two months old."

"Was she sick at that time?"

"No, she was a normal, very healthy baby."

"But you took her to a doctor as soon as you got her back home in Minnesota?"

"Yes, like any mother would do with a newborn, for a routine post-natal checkup."

"And what was the result?"

"Lucy was a perfectly healthy child – no infections, no abnormalities, no symptoms, no nothing."

"But *something* was wrong?"

"Yes. Lucy was HIV-positive."

"And what did your doctor prescribe?"

"First, he put her on a drug called Septra. And then later he prescribed AZT."

"Did he do any tests on Lucy before he put her on AZT?"

"Yes, he did a T-cell count."

"He tested her immune system?"

"Yes."

"And what did he find?"

"He said that Lucy's T-cell count was perfectly normal and her immune system was just fine."

"And this, as you said, was right before she started taking AZT?"

"Yes, it was."

"How often did Lucy get her AZT?"

"Four times a day, in syrup form."

"Did the doctor see Lucy for a follow-up?"

"Yes, a month after she started taking the AZT. He said he saw quite an improvement."

"You must have been pleased."

"No, we weren't pleased. We were puzzled, because there was nothing wrong with Lucy to begin with that needed improving. She had always been a happy, healthy baby. In fact, what we saw was exactly the opposite. Since she started taking the AZT, she was losing weight, she was falling behind the proper growth rate for children her age, and she was losing her appetite. By the time her first birthday rolled around, even the doctor had to admit she was not doing very well."

"And did he say what he thought was causing her illness?"

"He blamed it on her HIV infection."

"Were you convinced?"

"No. We started reading up on these drugs and their side effects, and reading other literature, and the symptoms other people were having on AZT sounded a lot like what was happening to Lucy."

"What did you do?"

"We took Lucy to another doctor, a specialist at the University of Minnesota."

"And what did he recommend?"

“*She*. This new doctor was a she, and she, too, blamed the HIV for Lucy’s symptoms and actually increased her dose of AZT.”

“Did that help Lucy?”

“Initially, yes, it did. But the improvement didn't last very long. Lucy soon stopped growing at all. And on the next visit the doctor did more tests and found out that Lucy's T cells had started to disappear – her immune system was failing.”

“And everyone assumed that it was again the HIV causing the immune failure?”

“Yes. But my husband and I were starting to get suspicious. And finally, shortly after Lucy's second birthday, she woke us up in the middle of the night screaming and tearfully clutching her legs. The muscle pains seemed to be unbearable. We tried everything, from massages to Tylenol. But the same thing kept happening night after night for a whole month, until we finally read that one of the side effects of AZT was the wasting away of muscle tissue.”

“What did you do?”

“We took her off AZT.”

“You stopped giving it to her altogether?”

“Yes, we did. It was scary, but it was our last hope.”

“And how did Lucy react?”

“She became a new child, almost overnight. She started sleeping better. Her muscle cramps went away. She started eating two and three times the amount of food, and started growing again.”

“How did your doctor respond to the news you had stopped giving Lucy AZT?”

“We were too afraid to tell her right away. So for the next two months, she kept remarking how much better Lucy was getting, and what a wonderful job the AZT was doing. When we finally told her the truth – that we had stopped the AZT – she was incensed, and even threatened to have the state take Lucy away and put her in a foster home.”

Sarah walks through the door to the garage into the Meadows’ kitchen, carrying a number of packages in her arms. Unwilling to tear himself away from Keating and Cathy Nyles,

Bill just waves and mutters something like, “Hi, honey...how was your day?” only briefly turning around to look. His full attention then returns to the TV, where Keating is winding down the interview.

“According to public health officials at that time, babies with HIV were supposed to only survive about two years, even on AZT.”

Sarah doesn't answer Bill's salutation. Instead, she drops the packages on the kitchen table and disappears down the hall to their bedroom. Bill senses something's wrong and calls after her.

“Sweetheart? Is everything all right?”

He turns down the sound on the TV to see if Sarah answers, but not low enough to miss Cathy Nyles' next line.

“Well, Dr. Keating, two years after we took her off AZT and those horrible leg cramps stopped, Lucy became a budding star in her local ballet school.”

When Sarah doesn't answer, Bill knows he needs to find out what's going on and what, if anything, he can do about it, but decides to finish watching the interview first. Laura has suddenly entered the picture with her own questions.

“Mrs. Nyles, it's Laura Begley here. Did Lucy's HIV status change somehow?”

“No. She is still HIV-positive.”

“And the way you answered that question, I have to conclude that today, almost 14 years after you stopped giving her AZT, Lucy is still alive?”

“Yes, Laura. See for yourself...”

Cathy Nyles turns and looks off camera to one side. In a few seconds Lucy Nyles, a very healthy-looking and beautiful 16-year-old girl, appears on the screen with her.

“Laura, Dr. Keating, I'd like to introduce you to Lucy. And it's her 16th birthday today!”

Keating and Laura chime in together, “Happy Birthday, Lucy!”

Keating could not imagine a more powerful or moving ending. “Thank you, Mrs. Nyles, and you, too, Lucy, for sharing your story with us.”

He turns back toward the studio camera. "There you have it, Laura."

But Cathy Nyles' voice is still heard off camera before the feed is cut, sounding very sad.

"Dr. Keating, is it true that they're giving AZT to thousands of little children in Africa these days?"

Bill pushes the mute button on the remote and gets up from the sofa. He goes into the kitchen and pours two glasses of wine, and then walks with them down the hall. He finds Sarah in their bedroom, partially undressed, taking her makeup off at the sink.

"My god, I've just been watching all this stuff from the trial..." He sets one glass of wine down on the sink next to Sarah and then sits down on the edge of the bed and takes a sip from his own glass. "Looks to me like it's a pretty iron-clad case. Imagine having a drug company found guilty of killing 300,000 people. How do you think it's going to affect..."

Sarah starts sobbing, catching Bill completely off guard.

"Sarah, what's wrong? What did I say?"

Sarah can't stop crying and doesn't answer. Bill tries again. "Did I say something to upset you?"

Her crying intensifies, but still no sign of what's wrong.

"Sarah, you have to talk to me.... Sarah, I've never seen you like this.... Sarah, my mind is going nuts over here. I'm making up all kinds of things.... I must have really hurt you somehow... or maybe you got fired today...or maybe you've been having an affair and you just saw him and broke it off...or maybe you're going to tell me you don't want to break it off, you want a divorce instead...."

Sarah finally turns and goes over to Bill and gives him a big hug while shaking her head No to all of those possibilities. But she still can't talk through the wave of tears. Bill finally shuts up and just holds her. He knows better. *She'll talk when she can.*

Finally she's able to whisper, "Just hold me, Bill, please, just for a minute, and then I'll talk."

Bill puts down his wine on the bedside table and pulls her down on the bed with him, cuddling her. A full five minutes goes by before Sarah is able to pull herself together enough to start explaining.

"I was 23 years old, Greg was 20."

"Greg? Oh, your brother."

Sarah nods.

"He looked up to me all his life. I was his protector, his guardian angel. I was the one who smoothed things out with Dad about his homosexuality. I was the one who stepped in when the ribbing got really bad in high school. I was the one he turned to for advice and support."

Sarah starts crying uncontrollably all over again. Bill waits another few minutes in silence. When he thinks she might be ready to continue, he offers his own two cents, trying to make her feel better.

"Yes, I know. You're that way with me, too – a pillar of strength, with always just the right thing to say."

Unfortunately, that makes things worse for Sarah, who now has to try to talk through the sobs.

"But I didn't say the right thing to Greg – not at the most important time."

Bill has no idea what Sarah's talking about. But he doesn't press her. Instead he decides to let her get it out however she can and whenever she can.

"He had friends that were warning him...."

Another minute goes by.

"His doctor couldn't convince him so they left that up to me...."

Oh, my god. Bill can finally see what's coming.

"Greg was HIV-positive, wasn't he?"

Sarah nods and cries some more.

"But he wasn't sick, you said. He didn't have AIDS."

Sarah shakes her head. "No, he had no symptoms...not until he started taking AZT."

Oh, my god. Bill realizes he has to help Sarah speak the unspeakable.

"It was you who talked him into taking the AZT...."

With that, Sarah curls up in a ball on the bed and wails in a way that Bill had never heard.

"Sarah, you cannot blame yourself for his death."

"I was the one he listened to," still sobbing. "He didn't want to take it...it was me who insisted...it was me who made him take it...and now I can see that it was the AZT that killed him...who else is there to blame?"

Bill gathers her in his arms once again and holds her even tighter.

"Sarah, you didn't know.... No one knew.... You did, you said, what you thought was right.... You wanted only the best for Greg, I know that, and so did he, I'm sure.... You didn't kill him.... He died, apparently like a lot of others, from a really crazy situation. He died from a drug that was supposed to save his life. That's what you thought you were doing – saving his life, not taking it...."

"But there were others who knew better at that time.... The information obviously was available.... I should have known.... if I had just done my homework better.... *I should have known....* of all people, *I should have known....*" This brings an even bigger flood of tears.

"But, Sarah, ultimately it was Greg's decision. He could have done that same homework. He could have stood up to you, no matter what you were suggesting, and say 'No, sis, I'm not taking that drug, and here's why.' It wasn't solely *your* responsibility."

Sarah is beginning to get angry now as well.

"But it *wasn't* his decision; it was *mine* in the end. And at least I should have told him that there were some questions about AZT!" She starts screaming as loud as she can. "ALL I DID WAS FEED HIM THE SAME BULLSHIT THAT WAS BEING FED TO ME!"

Bill wasn't sure which was worse, her rage or her tears.

"You've always been a very trusting person, Sarah. We're just now finding out how powerful the drug companies are in this country, and how the government can lie and get away with it – in a lot of areas. Sarah, Greg's death was not your fault. You have to..."

Sarah looks toward the ceiling, and with a gut-wrenching wail, "Oh, god, Greg, I'm so sorry.... I'm so sorry...."

Bill knew there was nothing more he could say, nothing else to do except hold her close as she wept, until she finally fell asleep hours later.

Chapter Thirty-Four

Messick is in his office, feet up on his desk, listening intently to the speakerphone.

"So what do we have left, maybe a day or two?" it asks.

"I think so."

Messick is trying to control his own optimism, but he's glad to hear his friends express their excitement.

"You've done a brilliant job, Ben. And I think I speak for all of us when I say that we're grateful you haven't needed us."

That kind of thing means even more when it comes from the voice of conservatism. But Messick is still cautious. "It's not over yet, and you all have been crucial to our success so far. I could not have done this without you there to support me every night."

"Well, that's debatable. But it looks like all our contingency plans were unnecessary, and I'm very glad about that."

The last voice is the one with which Messick was most familiar. "Like I said, it's not over yet, John, and I don't think we should be too confident. What *has* surprised me a little is how many people are literally crawling out of the woodwork to join our side, now that it looks like we might prevail."

"Everybody loves a winner!" the speakerphone says. And then in a different voice, "I get the impression that people were scared shitless of Gallo, and maybe they don't have to be any more."

There are a lot of other people to be afraid of in addition to Gallo, Messick thinks. "But unless you guys disagree, I don't see any reason to change our game plan and include any more witnesses from those that have been calling in to offer their testimony in support."

"No, I agree. There's such a thing as overkill for the jury. I think we're in good shape and don't need to change a thing."

Then Messick remembers his pending appointment. "I'm going to meet with this one guy tonight anyway."

"Who's that?" the speakerphone wants to know.

"Some guy who's flying all the way from Japan, says he just *has* to see me."

"What's his name?" the same voice asks.

"Kyoto, I think."

"*Doctor* Kyoto?"

"I think so. Why?" Messick hadn't recognized the name when the call came through. But apparently the speakerphone does. It explains.

"Do you remember, way back, when we were first planning our strategy, we talked about an epidemic that had hit Japan in the '60s, and how many similarities it had to AIDS?"

Messick shrugs, but no one can see. "Vaguely."

"Well, we talked about getting Dr. Kyoto to testify about...seems to me the disease was called something like SNOM, or SMON. Anyway, it sounded fascinating, and very pertinent. The only problem was that Kyoto was outside U.S. jurisdiction and we couldn't subpoena him. If he's volunteering to come all this way to talk with us, we must really be making some waves."

A different voice sounds less enthusiastic. "When do you meet him?"

Messick looks at his calendar. "Midnight."

"Tonight? You've got to be kidding!"

"No, supposedly it's the only time he's got. His plane arrives around eleven from Tokyo."

All excitement in the speakerphone has now disappeared, replaced with worry and concern.

"Where's this meeting taking place?"

"At that 24-hour café downtown, near the courthouse."

"Ben, you better watch your back."

"Why? Why would the Japanese be after me?"

"I agree with John, Ben. You've become a real threat to a lot of big money around the world. And we're so close to the end. Just be really careful."

"You've got to stay alert, buddy. I wish one of us could get there in time to go with you."

"That's definitely not necessary, Tom. I'm sure he wants to tell me something he thinks is really important, and if he wants to

fly twelve hours to see me, the least I can do is listen for a few minutes to what he has to say. That's all there is to it. I'll be fine."

"All right. But do me a favor and call me when you get back home."

"Oh, come on, John. That'll be in the middle of the night for you."

"I don't care. Call me anyway."

"Well, thanks for the concern, guys. Now let's talk about how we want to end this thing next week...."

Chapter Thirty-Five

Messick walks across the street the short distance from the parking garage to the front of the 24-hour café where he stops, looks at his watch, and then glances up and down. When not a soul is in sight, he turns, walks through the café door and looks around at the smattering of patrons. *Not many people awake at midnight, or maybe they're just not hungry.*

At the far end of the rectangular room, he sees an older Japanese man sitting at a booth. The man looks back at Messick and bows slightly.

"Dr. Kyoto?" Messick asks as he approaches.

The man nods and motions for Messick to join him. The waitress has followed Messick to the booth, so as soon as he is seated, he orders.

"Coffee for me, with cream." As the waitress leaves, he sees that Dr. Kyoto already has a pot of hot water for tea.

"Thank you for meeting me, Mr. Messick, especially at this late hour. I have been following your trial with great interest, and I felt it was time I speak with you about certain things." Kyoto's voice is quiet and peaceful, quite a contradiction to the urgency with which he requested the appointment. *Maybe it wasn't Kyoto himself who called.*

"Dr. Kyoto, I should tell you up front that it is probably too late to add any witnesses to our case. I am sorry you have come so far, but you insisted. And I'm not sure I understand why we couldn't meet during the day tomorrow."

The waitress appears with more hot water for Kyoto and the coffee and cream Messick ordered.

"I have to catch a plane again in a few hours." Perhaps Dr. Kyoto thought that would satisfy Messick and explain the midnight meeting, but it only made Messick more curious. *Why fly, how many hours from Tokyo, 12, 14 maybe, to talk to me for an hour or two and then fly back? Why not tell me over the phone, or fax me, or e-mail me, or something? What's so damn important that it had to be done in person?*

“Well, I do not want to waste your time, Mr. Messick, so let me begin.” Kyoto pauses to decide where to start. “Mr. Messick, you have been pretty hard on Dr. Gallo during this trial.”

Messick is pissed. You get me to come down here in the middle of the night to criticize me and defend that bastard? Bullshit. I don’t have to listen to any more of this, no matter how far you’ve come. He puts down his coffee and starts to get up to leave.

“Dr. Kyoto, let's not waste each other's time. Dr. Gallo dug his own grave many years ago.”

Kyoto bows in apology. “Please, Mr. Messick, I agree. Please...please sit back down and hear me out.”

For some reason, mostly curiosity, Messick settles back into the booth and Kyoto starts over.

“I didn't say you had been *too* hard on Dr. Gallo...but like him, I am a virus hunter, and perhaps I empathize with Dr. Gallo's predicament.” When Messick doesn’t respond, Kyoto takes a sip of tea and then continues. “Are you familiar with a disease called SMON?”

“No, not really,” he said, although he had remembered bits and pieces after the phone conversation with his team.

“That's not surprising. Hardly anyone has heard of it outside of Japan. But it killed over 11,000 Japanese between 1959 and 1973. It was a horrible epidemic. I was in charge of trying to find the cause. It was not an easy job.”

“I assume the empathy for Dr. Gallo doesn't stop there, or you wouldn't have flown twelve hours to sit with me and drink tea.”

“You are very right, Mr. Messick. Let me start at the beginning, and you will see just how similar the epidemics of AIDS and SMON are, and how close you are to finding the real cause of AIDS in the direction you are looking. I am hoping that our conversation will bring you added clarity.” Kyoto bows slightly.

The waitress appears with a coffee pot. Messick knows that with such few people in the café to wait on, she could be at their booth interrupting them every few minutes – maybe because she really cared about her job and wanted to give them good service,

or maybe because she was hoping for a bigger tip to make the night worthwhile. Or was it just to rescue her from the boredom? Whatever the reason, he decides to make sure that won't happen. "Could you possibly leave us the pot of coffee so that you don't have to keep checking on us? We'll be fine, and we'd appreciate some privacy. Thanks," and he hands her a \$5 bill.

The waitress shrugs, takes the tip and leaves the pot of coffee on the table.

"All right, Dr. Kyoto. You have the floor, as we say in America."

Dr. Kyoto takes a sip of his tea and begins what will become a long and unexpected story.

"It was 1959. I was studying the poliovirus when I was called in to consult on some patients who had developed a progressive paralysis that continued into a slow, miserable death. It looked like polio, but it wasn't. In the next five years, Mr. Messick, we had seven major regional epidemics, numbering 161 new cases a year by 1964 – stomach pains or diarrhea leading to nerve damage."

"And no one knew what was causing it?"

"Our first thought was that it was infectious and being spread by insects, because cases increased in the late summer. But there were many contradictions and problems. For example, the majority of patients were middle-aged women, but hardly any children. And the blood tests for all these patients were normal. They also did not have any fevers, rashes, or other signs of some invading, infectious germ. I should have known then not to be looking for a virus. But I say again, I am a virus hunter, like Dr. Gallo. I assumed there must be a new, undiscovered virus causing this disease."

"Did you ever find one?"

"That is getting ahead of the story, Mr. Messick, but the answer is No. Not that I didn't try; I tried very hard indeed. A commission was created to investigate this disease, which we called SMON – Subacute Myelo-Optico Neuropathy. I was appointed to the Commission, along with several other virologists, and that meant that our major focus would remain on

finding a virus as the cause. Does this remind you of anyone or anything?"

Messick could see all the similarities to Gallo and AIDS. He even thought he might know already how this story would end, but he'd be polite and let Dr. Kyoto tell it. "Continue, Dr. Kyoto."

"A colleague of mine, Dr. Masahisa Shingu, thought he had discovered such a virus, in 1965, I believe. It was what is called an 'echovirus,' which is known for infecting the stomach or intestines, and Dr. Shingu had found evidence of this echovirus in various SMON patients. Unfortunately, I could not agree with him. Unlike Dr. Gallo, I believed in Koch's Postulates."

He's been watching the trial on TV!

"I tried for three years to make Dr. Shingu's virus meet those criteria as the cause of this disease. But in 1967, I had to address a symposium on SMON and announce the bad news – that I had failed to be able to isolate this echovirus from patients, and I could not even find indirect evidence that the patients had previously been infected with the virus. As much as we all wanted the answer, I could not support the claim that we had found the cause of SMON. No one was very happy with me, but they at least listened, and stopped believing in this fantasy."

"Were you right?" Messick is sure he knows the answer, but he wants to give Kyoto the opportunity to take some credit for his work.

"It took another four years before other researchers confirmed what I had found, but yes, I was finally proven right, thank you very much."

Dr. Kyoto takes a minute to stop and drink some more tea. Messick fills his coffee cup as well and Kyoto picks up where he left off.

"This SMON commission was dissolved that same year, a failure. We still had 2,000 cases of the disease unsolved. Well, actually, someone had found the cause, but we didn't know it at the time, and it was...how do you say...swept under the rug?"

"You had found the cause? What was it?"

"A drug. That same year, 1967, Dr. Mackawa, who headed up the SMON Commission, had almost accidentally discovered

that about half of the victims had been prescribed a drug called Entero-vioform. And the other half had been given a different drug called Emaform. Both drugs were given to relieve symptoms of stomach pains, intestinal problems, and diarrhea. But because the Commission was so focused on a virus as the cause, and still believed the disease to be contagious, no one paid any attention to this. Besides, it was foolish to think that two different drugs could cause the same disease. Instead, reports were published in 1968 claiming a new virus was found in the tissues of SMON patients. Unfortunately, this new virus also turned out to be a false alarm. Since this epidemic kept getting worse, in 1969 there was a new SMON Research Commission created and I was made the chairman. After 10 years of failing trying to find a virus as the cause, I was not so sure any more. So I split the Commission into four parts. I headed up the virology group. But I also had three of the top scientists in Japan looking in other areas. We tried to find a bacterium instead of a virus. This, too, failed. So now it is 1970. Two thousand more people had died in 1969. For almost twelve years we had been looking for a germ, a microbe, with no results.”

Messick can see the anguish in Kyoto’s face as he talks, reliving the shame of failure. “It must have been painful for you.”

“It was more than painful. It was a disgrace.”

“How did you finally solve your problem?”

“Dr. Beppu actually solved it. Dr. Beppu was a pharmacologist. He made the same discovery Dr. Mackawa's team had made three years earlier about the drugs Entero-vioform and Emaform. But he took it one step further and discovered that both drugs were essentially clioquinol, a generic drug commonly prescribed for diarrhea and dysentery. Dr. Beppu fed clioquinol to experimental mice, trying to see if it would cause nerve damage and paralysis and therefore be the cause of SMON. But his mice kept dying. He was very disappointed. It actually took another year before we on the SMON Commission recognized the significance of what Dr. Beppu had found – that clioquinol was a highly toxic drug that could indeed cause nerve damage and, in higher quantities, death. But it was hard for us to believe the facts, even when they were staring us in the face.”

“Why?”

“Because clioquinol was being used to treat the very abdominal symptoms found in SMON...”

Messick finishes the sentence, “...and because the doctors treating the patients didn't want to believe that what they were prescribing was making things worse instead of better – the drug was doing more harm than good?”

“Yes. On top of that, one of the side effects of clioquinol was constipation and abdominal pain. When a patient would complain of these symptoms, they would be given more clioquinol as a treatment. The doctors were ignorant of the true side effects of clioquinol and assumed the stomach pains came from the primary sickness, and therefore kept increasing the dose. It became a deadly, vicious cycle.”

“Was there any other proof that clioquinol was the culprit?”

“There was a whole list of things. For example, the number of SMON cases was directly proportional to the sales of clioquinol, and the epidemic itself had begun shortly after approval for pharmaceutical companies to start manufacturing the drug in Japan. It turns out SMON wasn't contagious at all. The tendency to appear in hospitals, the family clusters, the heavier occurrence in late summer – all these were again directly related to the sales of clioquinol.”

Messick adjusts his seat in the booth. “So what happened?”

“In September of that year, the Japanese government finally banned the use of clioquinol, and the epidemic was over.”

“I am beginning to understand now why you see such a similarity to the AIDS epidemic in the U.S.”

“Oh, my dear Mr. Messick, how do you say...you have not heard anything yet.”

Messick looks at him astonished. *Okay, you've got my full attention now.* He waves to the waitress for a new pot of coffee and more hot water for Kyoto and sits back to listen some more.

“Well, the most disturbing aspect was probably the drug company that manufactured clioquinol in Japan, Ciba-Geigy.”

“Why?”

“First of all, it was discovered that Ciba-Geigy had received warnings about these side effects of clioquinol years before the

Japanese epidemic broke out and 11,000 people were killed. And they ignored them, and suppressed them.”

“They knew all along that clioquinol could cause nerve damage, paralysis and death? And they did nothing about it?”

Kyoto nods. “And I can say that with certainty because of the successful lawsuits later filed against Ciba-Geigy, where this was proven.”

“Dr. Kyoto, did you know that there have also been a number of successful lawsuits filed in the United States by individual AIDS patients or their families against Burroughs Wellcome, and then Glaxo Wellcome, claiming that AZT was the cause of AIDS, and therefore responsible for the resulting illnesses and deaths of their loved ones?”

“I had heard rumors.”

“And that’s probably all anyone will ever hear, Dr. Kyoto, because every single case was settled out of court to prevent having a public record, and every single settlement – which was often in the millions of dollars – contained the requirement that nothing public could ever be said about the case or the settlement would be forfeited by the plaintiffs.”

“That makes sense.”

I like this man. It somehow rekindled Messick’s faith in mankind to realize that not all top scientists were as obnoxious and arrogant as Robert Gallo. *Is it just we Americans?* He wonders.

“Dr. Kyoto, why haven’t we in the U.S. heard this clioquinol story before now?”

“I think there are two answers to that question. One has to be the U.S. preoccupation with viruses, to the extent that your medical and scientific research community almost refuses to look at any other answer. And two, the power of the pharmaceutical industry in your country. Your current President, for example, and his political party received an obscene amount of money from the drug companies in the last couple of elections, and he has since gone out of his way to support anything the pharmaceutical industry wants. What they certainly do *not* want are any stories about drugs causing diseases and killing large numbers of people.”

That was about as close to anger or any other emotion that Dr. Kyoto would get, but it showed just how deeply he cared about his own profession and how he lamented its demise.

“Mr. Messick, I believe I remember you saying something in the beginning of this trial about ‘show me the money’?”

He was watching it all on TV...I thought so.

“Well, the money is in the drug companies. But not only do they now control your political system, just look at how they control the media these days, by buying hundreds of millions of dollars of advertising. If the drug companies don't want you to know something, you won't know it because the media won't risk telling you the truth.”

Both Kyoto and Messick sit quietly for a minute, letting this reality sink in.

“Do you understand better now why I see such similarities between me and Dr. Gallo, Mr. Messick?”

Messick did, and only wished Gallo had the integrity of Dr. Kyoto. “But *you* kept an open mind enough to eventually find the real cause and stop the disease.”

“Perhaps,” he says, with humility.

Kyoto looks at his watch. “I'm sorry, Mr. Messick, I must go.” He begins to collect the few papers and things he brought with him, in case. “Excuse me while I call a taxi.” He consults his notes and dials his cell phone.

Messick finishes his coffee. He looks at the empty coffee pot. *I'll be awake for a week!* When Dr. Kyoto finishes, Messick has an afterthought. “Dr. Kyoto, I have some colleagues I work with on this case. I would like to discuss everything you have told me with them. I think it is very important that the jury hears your story, but I will need to find a way to get you on the stand. Can you stay for a few days? I could try to get you on the stand on Monday, and you'd be back in Tokyo by Tuesday.”

“Mr. Messick, I'm sorry. I cannot. I have appointments I cannot break in Tokyo tomorrow. But I would come back in a couple days, if you want to arrange it.”

“I will see what I can do. And I am very grateful that you would come all this way to help us.”

“Mr. Messick, I was not able to help 11,000 of my own people who died from SMON while we chased a virus. The least I can do is try to help 300,000 AIDS victims in your country who died from a similar...what shall we call it, *mistake*...by a very misguided research scientist.”

Messick nods his understanding. I really like this man, and I think the jury will, too.

The two men walk out of the café and stop just outside the door, waiting for Kyoto's taxi. They don't say much, as if both are exhausted from all that's already been said. When the cab shows up, Kyoto offers Messick a ride.

“Thank you, no. My car is just across the street,” pointing toward the parking garage.

They shake hands, and Kyoto bows. As Dr. Kyoto gets into the taxi and Messick turns and walks away, another car comes around the corner. It appears to be full of drunken men, yelling loudly. Just as it passes the café, one of the men pulls out a rifle. Three shots ring out in the early morning silence, and Benjamin Messick is killed instantly. Kyoto watches through the rear window of the taxi as it speeds away, a horrified look on his face.

Chapter Thirty-Six

Thomas Crawley and his wife, Alice, are sitting in their colonial wingback chairs in front of the large picture window in their living room, reading – what they always did on a Saturday night. Suddenly, a van pulls up in front of the house, and then another one. Soon bright lights are shining through the window and people seem to be everywhere on their front lawn.

“What the hell?” Crawley wonders.

“Who are those people, dear?” Alice doesn’t seem to be afraid as much as annoyed to have her peace and quiet violated.

“I don’t know.” Crawley puts his book down, gets up and walks into the foyer just as the doorbell rings. When he opens the door, he is almost blinded by the lights in his eyes, and it takes a minute to realize that there are reporters crowding toward him and already a half-dozen microphones and TV cameras in his face.

“Mr. Crawley, do you have any comment?”

“About what?” Crawley is totally confused.

“About the drive-by shooting downtown last night...early this morning...it was Mr. Messick. He’s dead. Murdered.”

Now Crawley is stunned, as well as confused. But he comes to his senses enough to walk completely out the front door and close it behind him, sparing Alice the intrusion.

“I saw the news of the shooting this morning, but they didn’t identify the man. Are you sure it was Messick?”

“Positive. The ID was released an hour ago. Any comment?”

Crawley tries to compose himself for the camera. He musters up every bit of public relations training he ever had. “I’m stunned...and saddened...and horrified that this senseless, random violence is still happening in our city. I didn’t know Mr. Messick well, but he was obviously a very fine attorney, and a formidable opponent.... The profession has lost a good man....” *That’ll make a good twenty second sound bite.* “Do they have any idea who might have done it?”

“Only speculation. Maybe it was random, but maybe someone didn't like his position on AIDS.”

“Well, that could be a lot of people.”

“Mr. Crawley, will you ask for a mistrial?”

This one catches Crawley off guard. “No.... No, not at all. But under the circumstances, I would certainly agree to a postponement, for let's say a month or two, while the plaintiffs regroup and find a new attorney. This is a tragedy. I would be happy to agree to whatever time they need.”

“Do you know who will take Mr. Messick's place?”

As the reality of the situation begins to hit him, Crawley decides it's time to withdraw and let fate take its course. “I have no idea. I don't know what the plaintiffs will do, as a matter of fact, to replace him.... That's all for tonight,” and he turns and walks back through his front door into the relative calm of his home. He closes the blinds on the front window to try to block out the lights and keep the cameras away, and then reclaims his wingback chair.

He doesn't say anything, just sits there pensively. Alice knows better than to speak without being spoken to, especially when it pertains to Crawley's work. Finally, perhaps more to himself than to her, he says, “Unbelievable...but really good for our side...how ironic, and how timely.”

Crawley takes a drink, and then continues talking to no one in particular. “A godsend for us, actually...but what a coincidence...I hope that's all it was...a coincidence.”

“Did you say something, dear?”

Crawley ignores her question and keeps the rest of his comments to himself. I should be more careful about what I wish for.... I wonder who did it. Would Gallo be capable, or ‘connected’ enough for something like this? Was it GlaxoSmithKline? Actually, it wouldn't have to be either one of them. There are so many other people making huge amounts of money from the HIV-AIDS business who are clearly not happy with what's going on in this trial...or should I say, what's coming out in this trial. I can think of half a dozen groups who would want to put a stop to this any way they could. Well, no point in

speculating... just be thankful for the postponement we're going to get and the chance to regroup.

Crawley takes another drink, picks up his book, and goes back to his reading.

Chapter Thirty-Seven

The courtroom is buzzing as the crowd wonders who is seated in the single chair at the plaintiffs' table where Benjamin Messick used to be. Crawley, and the rest of his entourage on the defense side, seem as confused as everyone else.

Judge Watts is vigorously banging her gavel for order as she tries to raise her voice above the din. "Order please.... Order!" When there is relative calm and quiet established, she explains, "Ladies and gentlemen, I believe we are all aware of the events of this past weekend and the tragic death of Mr. Benjamin Messick, the plaintiffs' attorney. While we do not wish to disrespect Mr. Messick, this court must go on. Mr. Baker, please call your next witness."

Whoever it is at the plaintiffs' table is obviously named "Mr. Baker," and he is rising to call his next witness when Crawley interrupts.

"Your Honor...uh..." Crawley is not exactly sure what to say or how to say it. "Your Honor, could we approach?"

Judge Watts waves both attorneys to the sidebar where Crawley continues.

"Your Honor, I don't understand. Who is this person?" motioning to Mr. Baker.

"Mr. Crawley, meet John Baker, one of the attorneys for the plaintiffs." The Judge seems to take some pleasure in Crawley's surprise.

Crawley and Baker shake hands. Baker remains silent, letting the Judge handle this.

"One of them? Judge, you said 'one' of the plaintiffs' attorneys, plural? I thought Mr. Messick was alone! How many of them are there?"

"That's a matter of record, Mr. Crawley, if you would take this case seriously enough to read what is sent to you. There are...there *were* four, including Mr. Messick."

Crawley looks back at the plaintiffs' table. "Where are they? And where have they been?"

“Frankly, Mr. Crawley, it's irrelevant and none of your business how the plaintiffs' attorneys want to conduct their case, as long as it conforms to the law and meets my criteria – which they have done.”

“Your Honor, I still don't understand.”

The Judge's voice takes on a slightly pedantic tone. “Mr. Crawley, before this trial began, the plaintiffs filed the required paperwork listing all four attorneys of record. This was not done secretly, and I'm certain you received a copy, but they requested that the names not be released to the public for security reasons, and I agreed.”

Baker is also enjoying this a little, at least as much as he can despite the reasons why he is here.

“Security reasons? What security reasons?” Crawley realizes immediately that it is a stupid question, considering the events of the weekend.

“Unfortunately, for the very reasons we may have experienced this weekend. There was concern that something like this might happen, and they wanted to ensure that the trial would not be affected in any way.”

“But this man...” Crawley pauses.

“Baker,” offers Baker.

“Baker...Mr. Baker has no idea what's going on. How could he possibly step in now?”

Now it's Baker's turn, and he knows he's got Judge Watts right behind him if he needs her. “Quite the contrary, Mr. Crawley. The other three of us have been watching every minute of this trial on TV, consulting with Mr. Messick every evening, and any one of us was prepared to step into Mr. Messick's shoes in the event of...unforeseen circumstances.”

Crawley sees all his hopes and plans washing away like sand castles in a tsunami. He also knows he's not going to get anywhere with the Judge if he keeps on the attack. He changes his tune. “Your Honor, I was ready – I *am* ready to grant the plaintiffs any length of continuance they need to allow Mr....Baker to more properly prepare to take over for Mr. Messick.”

Baker tries not to laugh at Crawley's predicament. "Thank you, Mr. Crawley, that's very kind. But it's unnecessary. I'm ready to go this morning."

"Your Honor..."

Judge Watts cuts Crawley off immediately. "Mr. Crawley, I'm starting to get the feeling that it is really *you* who wants a continuance. Is that true?"

Crawley knows he can't admit to that. "No, Your Honor, not at all. The defense is ready to continue. I was just trying to offer some sympathy."

"We all appreciate your sympathy, Mr. Crawley. Now let's get on with it, gentlemen, shall we?" and she waves both attorneys back from the sidebar. Now that she has the lawyers handled, she moves to get the press in line as well.

"For the benefit of the media, this is Mr. John Baker, one of the attorneys for the plaintiffs."

There is a loud response of whispers from the courtroom, at which the Judge gavels until they are quiet.

"Mr. Baker, are you ready to call your next witness?"

"I am, Your Honor. The plaintiffs call Dr. William Peters."

While the witness is approaching the stand, the crowd makes a lot of noise again, forcing the judge once again to gavel for quiet.

"Dr. Peters, would you please tell the court your current position?"

"I am President of the American Medical Association, among other things."

"When did you take office?"

"In June of this year."

"Dr. Peters, would you please define the word 'iatrogenic' for the court."

"The dictionary definition of 'iatrogenic' is 'induced in a patient by the doctor's words or actions.'"

"In more simple terms, could you please explain how the word is used today?"

"Basically, we use it to describe a disease that has been caused by a doctor or a hospital or a drug, because of a wrong diagnosis or treatment."

"So if a doctor makes a mistake and the patient gets sick, that's 'iatrogenic'?"

"Correct."

"Or a hospital performs a wrong procedure?"

"Correct."

"Or the wrong drug is given?"

"Correct."

"And do patients die because of these mistakes?"

"Sometimes, yes."

"And the American Medical Association keeps track of how often this occurs?"

"Yes, we do."

"And do you think that your statistics are pretty accurate? I mean, do you think that doctors and hospitals report these... *mistakes*...reliably?"

"We've been trying to do a much better job of this recently, and I would say that our statistics are now probably more than 90% accurate."

"So as the current President of the AMA, are you familiar with these statistics?"

"I am."

"In 2005, for example, what were the total number of deaths in the U.S. caused by doctors and hospitals?"

Dr. Peters takes a piece of paper from his pocket and reads it before answering. "The report for that year says 358,945."

"Almost 360,000? Wow!" Baker can fake surprise almost as well as Messick could. But that's not surprising, since they went to the same law school. "And that's 358,000 *deaths*, not just 358,000 mistakes, correct? It doesn't include mistakes that just led to discomfort or disability? It's 358,000 *deaths*?"

Dr. Peters doesn't look very pleased to admit it, but he has no choice. "Correct."

Baker picks up a report off his table and hands it to Dr. Peters.

"Dr. Peters, I heard you say you thought your statistics were about 90% accurate, is that right?"

Dr. Peters looks up from the report Baker handed him to answer, "Yes. That's what I said."

“Dr. Peters, are you familiar with the paper you’re now holding in your hands, written by Dr. Gary Null, three other MDs and another Ph.D., called ‘Death by Medicine’?”

Peters puts the report down on the railing of the witness box, as if trying to distance himself from it.

“Yes, I know about it.”

“And so, Dr. Peters, do you know whether these researchers came up with a different number than you did with respect to iatrogenic deaths?”

“Yes, they did,” Peters answers.

“How many deaths do they say, Dr. Peters, are caused each year by iatrogenic causes – from doctors and hospitals and drugs?”

“I don’t remember exactly.” Of course, Dr. Peters knew precisely how many, but he didn’t want to be the one to say it.

“Well, it’s right there in the first paragraph of the study, Dr. Peters. Please read that number to the court...”

Peters begrudgingly picks up the paper again, reads the first paragraph to himself, and then announces, “783, 936.”

Baker turns and looks at Peters as if he hadn’t heard him correctly. “Seven-hundred, eighty...what-thousand?” making Peters repeat it so the jury couldn’t possibly miss the point.

“783,936, Mr. Baker.”

“That’s quite a bit more than the 358,000 deaths you admitted to, isn’t it?”

“Yes, but of course, we don’t necessarily agree with Dr. Null or his colleagues or this study.”

I’ll let you off the hook for a minute, Baker decides. “I understand, Dr. Peters. Why don’t we just agree that the total number of iatrogenic deaths every year in this country ranges somewhere between 350,000 that the American Medical Association admits to, and more than twice that number, close to 800,000, that other people claim. Is that fair to say?”

Peters really had no choice. “All right. But you should also say that we’re taking steps...we implemented a new program at the beginning of 2005 which lasted until June of 2006, in conjunction with the Institute for Healthcare Improvement, designed to save 100,000 lives or more by preventing common

in-hospital system errors which can result in potentially avoidable deaths.”

Baker allowed Dr. Peters time for this AMA commercial before proceeding. After all, Baker wanted Peters to look good to the jury when he stunned them with the next few statistics.

“Dr. Peters, going back to the statistics you brought with you, what was the leading cause of death that year?”

Peters glances again at his own paper. “Heart disease – all different kinds of heart disease.”

“How many died from heart disease in 2005?”

“Almost 700,000.”

“And the second leading cause of death?”

“Cancer of any kind,” and then anticipating the next question, “more than 500,000.”

“And the third leading cause of death?”

“Iatrogenic.”

Baker looks directly at the jury while delivering the next question. “Dr. Peters, you're saying that, according to the American Medical Association's own statistics, mistakes made by doctors and hospitals and drugs are the third leading cause of death in the U.S.?”

Peters looks embarrassed, as well he should. “Unfortunately, that's correct.”

Baker walks over to the witness stand and picks up the report Peters left on the rail and waves it in the air.

“And if Dr. Null's number of 783 thousand-plus turns out to be closer to the truth, it would make mistakes by doctors and hospitals and drugs the absolute Number One leading cause of death in the United States, wouldn't it, Dr. Peters?”

Peters is damned if he's going to admit that. Baker doesn't care. He throws the Null study on his table.

“Dr. Peters, let's stick with your own numbers. Of those 358,000 iatrogenic deaths, how many, or what percentage, were caused by giving the wrong drug, or the wrong dosage of the right drug, or by any other kind of adverse drug reaction?”

“Almost half.”

“And the other half?”

“An incorrect diagnosis, unnecessary or botched surgery and other medical procedures, hospital-induced infections, that sort of thing.”

“So, Dr. Peters, we're killing a lot of people by incorrect diagnoses and the incorrect use of drugs?”

Peters is beginning to resent Baker's insistence on making the medical profession look bad. “Medicine is not an exact science, Mr. Baker. Doctors are human. Sometimes we make mistakes.”

“Apparently ‘we’ make a lot of them. In fact, ‘we’ have to admit, don't we Dr. Peters,” again looking directly at the jury, “that it is definitely *not* uncommon to talk about a doctor or a hospital or a drug causing someone's death – more than 300,000 deaths, to be exact?”

Peters wisely decides that defending his peers or fighting back isn't going to get him anywhere. “As I said, unfortunately not.”

“In fact, for me to suggest that a wrong diagnosis was made and a wrong drug was given that killed 300,000 young American men and women over a ten year period is certainly not a far-fetched idea, now is it? After all, that represents about 30,000 deaths a year, less than 10% of the total iatrogenic deaths. No, not farfetched at all, is it Dr. Peters?”

“No, Mr. Baker, it's not.”

“Thank you, Dr. Peters. No further questions.”

As Crawley declines to cross-examine, as usual, and Dr. Peters leaves the witness stand, the chatter begins again throughout the courtroom, whispered comments about this new attorney for the plaintiffs. Judge Watts has to use her gavel to bring order and quiet one more time, and then urges Mr. Baker to call his next witness.

“Your Honor, we would like to call...”

Crawley is out of his chair and on his feet. Somehow he has to figure out how to stop this, now.

“Your Honor, I believe the events of this past weekend and the grief of losing Mr. Messick have affected all of us more than I had realized...,” he looks behind him around the crowd of

spectators, "...and perhaps others as well. Would the court consider breaking for lunch early?"

"How early, Mr. Crawley?"

"Now, Your Honor. I would appreciate a recess *now*."

This brought another wave of whispers and another bang of the gavel.

"Normally, Mr. Crawley...", Judge Watts stops and appears to be reconsidering. "Perhaps that's not a bad idea, considering the fact that there is entirely too much commotion in here today. I can understand the media's interest in this mysterious Mr. Baker. I suggest, Mr. Baker, that you go outside and subject yourself immediately to all the questions these people want to ask you, so that we can come back after lunch and continue with some decorum. Do you hear that, ladies and gentlemen of the press? Get it out of your systems now, because if you don't behave yourselves after lunch, I'm kicking you all out of here. We stand at recess until two p.m."

Chapter Thirty-Eight

Sarah isn't close enough yet to hear the questions coming from the press gathered around the steps leading down to the atrium from the Special Proceedings Courtroom. All she can hear are Baker's answers as she tries to maneuver around the mob.

"No, I will not give you the names of the remaining two attorneys, for safety reasons."

"No, we are not partners in a law firm, but we became partners for this case."

"No, that's not a problem because we are not working on a commission or contingency basis. We receive our expenses and a very small monthly stipend only."

"Yes, any one of us could have taken over for Mr. Messick."

From the far side, Sarah shouts the loudest, surprising even herself. "But why you? Why not one of the other two?"

Baker turns in Sarah's direction, but doesn't know exactly who asked the question. "Good question...why me? I think because Ben...Mr. Messick...and I have such similar styles in the courtroom that we all figured it would be less of an adjustment for the jury if I took over."

There must be a dozen reporters firing questions at Baker, who chooses one randomly, "Do you all live here in Phoenix?"

"No, we all live in different parts of the country. Mr. Messick lived in Phoenix, which is one of the reasons he was the lead attorney for us in this case."

Another barrage of questions comes simultaneously, even before he can fully answer the previous one. "Do you know who killed Mr. Messick?" wins out this time.

"No, and I am leaving that entirely up to law enforcement."

"You must have been afraid something like this might happen?"

"Let's just say that we were prepared for this contingency.... We're all single, no children, no significant others.... Yes, the rest of us are ready to give our lives for this case, to be perfectly honest, if that's what it takes, the way Ben Messick did. After all,

there were over 300,000 lives lost before we came along.... Yes, each of us has a very personal reason for being involved in this case and risking everything.... My reason? As I said, it's personal....”

The truth was that Benjamin Messick and John Baker and Tomas Janson and William Clark III were in the same class at the University of Michigan Law School and became fast friends. As time went on, they discovered they had more than law in common, each having lost a brother or a lover to AIDS, for which they would later feel a lot of guilt and anger. Although going their separate ways, they kept in close touch after graduation and spent golfing vacations together at least once a year.

As a result of research on another client's case, Messick had begun to uncover the truth about HIV and AZT and AIDS. When he finally thought he had the complete picture, he turned their 2004 winter vacation at a Scottsdale resort into a work session, which culminated in the formation of a partnership and a plan that included filing this class-action lawsuit. The four of them dedicated their lives to bringing to justice those ultimately responsible, not just for their own loss of a loved-one, but also for all 300,000 who had died a wrongful death. Sensing the dangers involved, they agreed on the contingency that had been activated on Saturday with the murder of Benjamin Messick.

John Baker sorely missed his best friend and felt the loss deeply. But he had a job to do, and he knew Ben would have wanted him to carry on with all the strength and courage he could muster. After all, the trial was nearing an end, and there would be plenty of time afterwards for mourning.

Chapter Thirty-Nine

Ivan Yaeger is on the stand as court resumes after lunch. Mr. Baker seems unshaken by his encounter with the media.

“Mr. Yaeger, what is your occupation?”

“I’m a P.A.”

“And what’s a P.A.?”

“A Physician’s Assistant.”

“And how long have you been a P.A.?”

“More than 35 years. I was trained in the Army as a 91C20 and served as a medic in Vietnam.”

“Mr. Yaeger, what’s a ‘popper’?”

“A popper is some form of nitrite inhalant.”

“But why are they called ‘poppers’?”

“Because they used to come in a small glass ampoule that you had to pop the top off of before you could sniff it.”

“Let’s take amyl nitrite in particular. Did it come in this glass vial?”

“Yes, it did.”

“And why would anyone want to sniff amyl nitrite?”

“Well, when it first came out, amyl nitrite had a number of legitimate medical uses, for elderly people with angina, for instance – heart pains. You’d just pop it and take a whiff, and it would calm your heart. It was one of the things people did occasionally if they felt a heart attack coming on. It also gave them a rush and a short-lived feeling of euphoria.”

“You said, Mr. Yaeger, ‘when it first came out.’ Do you know what company discovered, patented, and made a lot of money from its monopoly on amyl nitrite for many years?”

Yaeger looks over at the defendants’ table. “Yes, it was Burroughs Wellcome.”

“Was amyl nitrite profitable for Burroughs Wellcome?”

“Oh, yes. They made a ton of money on poppers.”

“And what happened to this goldmine for Burroughs Wellcome?”

“Nitroglycerin happened. Nitro was better, more convenient, and it didn't give you a headache. You just stuck this little pill under your tongue instead of popping a vial.”

“So what did Burroughs Wellcome do when the sales of amyl nitrite fell off?”

“They did what Burroughs Wellcome always did when they could no longer sell a drug they have stockpiled. They come up with another use.”

Crawley doesn't like the tone of this exchange. “Objection, Your Honor.”

Judge Watts doesn't like it either. “Sustained. The witness will refrain from sarcasm and simply answer the questions.”

Yaeger looks genuinely apologetic. “Sorry, Your Honor.”

Baker doesn't let the objection bother him, however. “So who then became the biggest buyer of amyl nitrite – poppers – from Burroughs Wellcome?”

“The U.S. military. Some marketing genius at Burroughs Wellcome got the Pentagon to believe that amyl nitrite was an antidote to gun fumes.”

Crawley's up again. “Objection, Your....”

Judge Watts doesn't need Crawley to finish. “Mr. Yaeger, I warned you. Cut the sarcasm. One more time and you're in contempt.”

“But it's true, Your Honor.”

Arguing with Judge Watts is not the smartest thing Yeager can do, which he quickly deduces from the look on her face. Although Yeager was not one to back down very easily, he knew Judge Watts was also not one he wanted to tangle with.

“Then figure out a different way to tell the court the truth, Mr. Yaeger, without the wisecracks.”

“Yes, Your Honor.”

Baker doesn't want to lose this witness, either. *Maybe I can ask the questions differently.* “So the Army was buying poppers?”

“Absolutely. And sending them over to Vietnam by the cratefuls. The soldiers loved it. Here was a very cheap, very effective drug they could add to their... 'chemistry stash'.... And the best thing was, the high they got from doing poppers was completely legal.”

“And when the soldiers came home from Vietnam, starting in the late ‘60’s?”

“At first, poppers were available without a prescription in this country, too. So the use of poppers began to spread, fast. But then there were reports of very nasty side effects, and once again Burroughs Wellcome found itself on the losing end, as the FDA restricted the sale of poppers.”

Crawley’s chair makes that squeaking sound on the floor, which prompts both Judge Watts and Baker to look at him, expecting him to object again. But Crawley didn’t stand or say a word. He must have thought twice and figured Judge Watts had established her own position and would curtail this witness without needing his help any more.

When Crawley was settled again, Baker continued.

“What happened next?”

Crawley apparently changed his mind. “Your Honor, what is this? A history lesson? What’s the point?”

Judge Watts looks at Baker. “What *is* the point, Mr. Baker?”

“Your Honor, if the virus called HIV cannot cause AIDS, the question naturally arises: What might cause AIDS instead? If you will give me the opportunity to continue along this line, I believe Mr. Yaeger can start to give us an answer to that question.”

“And the relevance to this case?” Judge Watts wasn’t letting Baker off that easily.

“Your Honor, if we have been giving AZT to people who are HIV-positive to supposedly treat their AIDS, and if HIV doesn’t cause AIDS, but something else does, then we have been giving the wrong drug to the wrong people, and killing them needlessly and wrongfully. I believe the jury should know that there are other very real possibilities of what might cause AIDS, that we’ve known about from the very beginning.”

Judge Watts thinks for a few seconds. “All right, Mr. Baker. I get your point. I’ll give you ten minutes for this line of questioning.”

“Thank you, Your Honor. Now, Mr. Yaeger, please *briefly* tell us what happened after the sale of poppers was restricted by the FDA, some time around 1970 – have I got the date right?”

“Yes, it was about that time. An enterprising gay medical student in California found out how to alter amyl nitrite just a little, making it butyl nitrite, which wasn't restricted. And then someone else came up with isobutyl nitrite.”

Baker looks at the lawyer for the FDA, seated at the defense table. “And how did the FDA respond?”

“They basically looked the other way and allowed the distribution of these new poppers, as long as they were labeled, quote, ‘room odorizer,’ unquote, and marketed strictly to gay men.”

“How did they regulate that?”

“They couldn’t, really, and they didn’t. But there was kind of an unwritten agreement that was almost never broken to advertise poppers only in gay publications. There were a few exceptions for women's magazines that gay men would read, like *Playgirl*, but everyone respected this agreement without having to say anything. And poppers ads were a huge chunk of revenue for the gay magazines. There was even a comic strip called *Poppers*....” There was a chuckle that very quickly ran the length of the courtroom and then stopped on its own.

“Were they still being sold in those little glass ampoules you had to pop?”

“No. Now they came in little brown bottles with a convenient screw-off top.”

“But they kept the name, ‘poppers’?”

“Yes.”

Baker pauses for a minute and leans on the lectern, apparently trying to decide on his next question. “And they became popular among gays?”

“Oh, yes. In the ‘70’s and ‘80’s, poppers were the rage. You’d go into a gay bar and a large percentage of the men on the dance floor would have poppers in their hands. Some disco clubs would even occasionally spray the dance floor with poppers’ fumes. And in the gay baths, there was literally nowhere you could go to escape the smell of these nitrites. It was really amazing. Within only a few years, hundreds of thousands of men were persuaded that poppers were an integral part of their gay identity. Magazine ads in the gay press conveyed the message

that nothing could be butcher or sexier than to inhale these noxious chemical fumes. Bulging muscles were linked to a drug that was indisputably hazardous to your health.”

“Why? What was so special about poppers?”

“They were cheap. They were readily available. And they were perfect for the gay community.”

“How so?”

Yaeger squirms in the witness chair a little, wondering how he’s going to tastefully give his next answer. “One of the effects of poppers is to...” and he looks specifically at the women in the jury, “...how do I want to say this? Because it is a vascular dilator, it helps create an erection in addition to creating a high, and at the same time, it relaxes the muscles of the anus. The drug also seems to intensify and prolong the sensation of orgasm and deaden the sense of pain.”

“So it would make it easier and more pleasurable to have anal sex with another man.”

“With *many* men. You could finish with one guy, take a short break, take another whiff from a popper, and go at it again with somebody else within minutes. Poppers made for quick, painless anal intercourse. Some guys did this forty, sometimes fifty times a day. It was the perfect gay drug.”

Baker shuffles through some papers on his table, picks one up, looks at it carefully, then waves it toward Yeager as he asks the next question. “Had there been any research on the side effects of poppers, especially used in that quantity?”

“No, not at that time – at least, not that the gay community was aware of. The real research didn’t start until the late ‘70’s.”

“And what did that research find out?”

“Objection. If Mr. Baker is asking for this witness to talk about the medical side-effects of these so-called poppers, then he isn’t qualified...not been established as an expert witness...we have no idea of his credentials to make such pronouncements....” Crawley is visibly shaken and unable to deliver his usual smooth, well-thought-out phrases.

The Judge notices this as well. “I hear you, Mr. Crawley. And Mr. Crawley does have a point, Mr. Baker.”

Baker walks toward the Judge's podium, about half-way. "Yes, Your Honor, I understand. I am not trying to offer this witness as an expert in medicine or the side effects of drugs. I intend to call another witness for that. I'll be happy to phrase my questions to stick to this witness's personal understanding."

Judge Watts is skeptical, but she is also captivated by Mr. Yaeger's testimony. "I'll let you proceed on that basis for the moment, Mr. Baker."

"Thank you, Your Honor. Mr. Yaeger, what did you personally come to believe about the effects of poppers on the human body, based on what you read and heard and knew as part of your profession as a Physician's Assistant?"

"I think...it was pretty clear to me that poppers could cause a lot of damage, like anemia, strokes, damage to the heart and lungs, and even the brain, and most importantly, the destruction of the immune system."

"Immune deficiency?"

"Yes."

"You're saying that it was known back in the 1970's that poppers destroyed the immune system?"

"Well, I knew it then, and apparently others did, too, because the FDA periodically would make some attempt to regulate the sale of poppers. But someone would always get around that by either changing the chemical formula or the product name."

"What about the gay publications? Didn't they alert their readers to the dangers of poppers?"

Yaeger shakes his head No. "They would have lost so much money from the advertising – just like 10 years later with AZT..."

"Objection."

"Sustained. The last part of the witness's answer will be stricken from the record and the jury is ordered to disregard it."

Baker knew he had scored anyway. "So what was the print media's position on poppers?"

"Well, one major gay magazine, called *The Advocate*, ran a series of ads promoting poppers as, quote, 'a blueprint for health,' unquote, which gave the impression that poppers – like vitamins, fresh air, exercise and sunshine – were an essential ingredient in a healthy lifestyle for gay men. And the poppers

manufacturers made sure that the magazines were constantly reminded about who was the largest advertiser in the gay press – again, just like with AZT...”

Judge Watts bangs her gavel this time and looks sternly at the witness. “Mr. Yaeger!” Then she looks at the court recorder. “Strike that from the record and, jury, disregard the witness’s last comment. I don’t want to have to speak to you again, Mr. Yaeger.”

Yaeger nods. Baker nods as well. “So poppers were a big business?” Baker asks.

“The statistic I remember so well is that in 1980, there were 5 million doses of nitrite inhalants sold in the U.S., making the poppers industry 50 million dollars in one year alone. It was a huge business, just like A...,” Yaeger stops himself just in time and looks at the Judge innocently.

Baker asks the next question quickly, before either Yaeger or the Judge can say anything more. “Mr. Yaeger, going back to the side effects of poppers for a minute, do you recall learning anything yourself about the relationship between poppers and a disease being called Kaposi’s Sarcoma, or KS?”

“Yes, I remember reading a number of studies at that time that proved there was a link between the two. It was my job to keep myself medically informed.”

“So when a new disease called AIDS showed up in the early 1980’s, predominantly in the gay community who were using poppers extensively, and its chief symptom at that time was this Kaposi’s Sarcoma, along with opportunistic diseases that resulted from an immune deficiency, what did you think?”

“Like a lot of people, I thought it was probably the poppers that were causing it.”

“Objection.”

“No, Mr. Crawley.” Judge Watts is not going to stop this testimony. “The witness clearly gave his own opinion and not as a medical expert. Continue, Mr. Baker.”

“Mr. Yaeger, what happened to change your mind about poppers and AIDS?”

“I didn’t, Mr. Baker...”

“You didn’t what, Mr. Yaeger?”

"I didn't change my mind. I still think poppers cause AIDS."

"But you just said, 'like a lot of people, you thought poppers caused AIDS.' What I want to know, I guess, is what made a lot of other people stop believing that poppers were the cause of AIDS?"

"Objection. Speculation and hearsay."

"Sustained. Rephrase your question, Mr. Baker."

Baker thinks for a minute. "Mr. Yaeger, what were you, and *a lot of other people*, being told was the cause of AIDS by Dr. Robert Gallo?"

"He said it was the HIV and not poppers. And he was supported by the CDC, a name we trusted."

"The Center for Disease Control said that poppers were not associated with AIDS?"

"Yes. Very clearly."

"So it was understandable, in your mind, why a lot of people might change their minds that poppers were causing AIDS?"

"Well, I guess not everyone is as intelligent as I am, and would believe what the authorities say, instead of what the facts dictate, yes."

"So the facts were overwhelming, as far as you were concerned?"

"Yes, unquestionably."

"Then why was it so easy to divert the rest of the gay community from poppers as the cause of AIDS?"

"For one thing, poppers can be highly addictive, in the sense that many gay men who use them find that they're no longer able to enjoy sex without them. I mean, like I said, this was the perfect gay drug. If there were any reason *not* to blame it for causing AIDS, people would jump on it."

"And how about today, Mr. Yaeger. Are poppers still being used?"

"Well, they're illegal in the U.S. and many places in Canada. But you know, making a drug illegal doesn't ever stop its use. Yes, poppers made a comeback in the 1990's, but of course, not nearly to the extent like before."

"To your knowledge, are there gay men who are using poppers today, getting sick, and dying of AIDS?"

“Objection, leading the witness and asking for a conclusion.”

“Sustained.”

“Okay....” Baker’s eyes look skyward as he searches for a different way to ask the same question. “Mr. Yaeger, are there gay men using poppers today?”

“Yes, there are.”

“Mr. Yaeger, are there gay men getting sick and dying today?”

“Yes, there are.”

“And Mr. Yaeger, are there gay men getting sick and dying today who also happened to use poppers?”

“Absolutely.”

“Do you think they would stop if they knew that poppers caused AIDS?”

“Objection. Leading....”

Judge Watts interrupts Crawley, but somehow it felt like the Judge was not letting Crawley complete his objection so that she could give Baker another chance, rather than having to stop this line of questions completely. “Sustained. Try again, Mr. Baker.”

“Mr. Yaeger, if the gay community was told by someone in authority in our government that poppers caused AIDS, what do you think they would do?”

“Objection, calling for a conclusion.”

“Overruled. Mr. Baker is simply asking for Mr. Yeager’s opinion, which I, too, would like to hear. Mr. Yaeger, please answer the question.”

“I think they would stop using poppers, Mr. Baker.”

Baker walks back to the lectern, flips a few pages on his yellow pad, looks at the jury to see whether they are finished digesting the last round of questions, and then continues.

“Just a couple last, very personal questions, if you don't mind, Mr. Yeager?”

Yaeger visibly relaxes in the chair, as if the hard part were over. “I don’t mind, Mr. Baker. That’s why I’m here.”

“You're gay, are you not, Mr. Yaeger?”

“I am.”

“So you had first-hand experience with poppers, did you not?”

“I did.”

“Did you do, as you said, forty or fifty poppers a day, like the others?”

“No, I did not. Early on I saw a friend of mine – he was a writer, George Whitmore – dancing in a gay bar with poppers in his jeans. One of the bottles broke and spilled out onto his leg, burning him horribly. I thought, if that's what this stuff does to your skin, what does it do when you inhale it?”

“But you had friends who did poppers?”

“Yes, I did. A lot of friends who did a lot of poppers.”

“What happened to them?”

“They all died of AIDS.”

“Thank you, Mr. Yaeger.”

Chapter Forty

Sarah very quietly makes her way down the aisle in front of the rest of the Arizona Tribune reporters seated in their row, while Baker questions his expert witness on poppers. Apparently, Dr. Richard Haley had been involved in some of the research Mr. Yeager mentioned in the late 1970's.

"And what did you discover about the toxic effects of amyl nitrites?"

"From my own research, I can tell you that the toxic effects of amyl nitrite inhalation – or butyl nitrite or isobutyl nitrite – include rapid flushing of the face, pulsation in the head, cyanosis, confusion, vertigo, motor unrest, weakness, yellow vision, hypotension, soft thready pulse, and fainting."

"Can people die from inhaling these nitrites?"

"There's no question about it. Accidental prolonged inhalation of amyl nitrite has resulted in death from respiratory failure. Fatalities have occurred in workers exposed to organic nitrites. Nitrite causes a loss of tone of the vascular bed and pooling and trapping of blood in the veins of the lower extremities, resulting in marked arteriolar constriction and the induction of anoxemia in vital tissues, causing death. And the use of volatile nitrites to enhance sexual performance and pleasure can result in syncope and death by cardiovascular collapse."

"What about the effect of poppers on a person's immune system?"

"I didn't necessarily do all these tests myself, you understand, but studies, both *in vitro* and *in vivo*, have shown that poppers definitely do damage the immune system. Investigation has found that the main change is in the natural killer cell activity, which drops very sharply – those are the T cells that fight disease. The conclusion was that exposure to amyl nitrite can induce changes in immune function and cause immune deficiency, even after short exposure to moderate doses."

Sarah made her way out of the Special Proceedings courtroom and into the cafeteria. She gets a cup of coffee, sits

down at a table in a corner, away from the few other patrons, and takes out her cell phone.

“Sam? It's Sarah.... Yes, I'm fine. Have you got a minute?... No, the trial is still going on. Right now the new attorney, John Baker, is questioning an expert witness about nitrites.... Gene's taking notes for me. Look, Sam, there's something important I want to talk to you about.... Thanks. Who's our best feature writer?... I have what I think will be a very important interview I want them to do, and then write a story for tomorrow's paper.... No, it's no one like that. It's me, Sam.... *Me*. I want them to interview *me*. Sam, I didn't realize it until today, but this trial is all about me – me and the 300,000 other sisters and brothers and mothers and fathers and friends and loved ones of the victims who died. But our stories are all the same, and I'm finally ready to tell mine. Who knows, maybe it will help heal the pain for others as well.... Sam, it's pretty clear now that they died from taking AZT.... No, not from HIV, from AZT, and there's a lot of people out there just like me who are feeling the loss and the guilt all over again.... Well, I think many of us knew something was wrong, even twenty years ago, but we pushed those feelings aside and believed what we were told. We're just now finding out how badly we were lied to.... Yes, and you can't imagine the guilt of knowing that you were part of that lie – part of the pressure that led them to take AZT.... Sam, I just want to tell my story. Trust me on this one.... I think it'll be powerful.... And yes, sell lots of newspapers.... Just ask, what's her name...Erin. Ask Erin to meet me at my office at four this afternoon for the interview.... Thanks, Sam.”

Sarah folds up her cell phone, takes a sip of coffee, and sees from the silent TV monitors that Baker has finished with Dr. Haley. She tosses the rest of her coffee in the trash and heads back to the courtroom to catch the next witness.

Chapter Forty-One

“Dr. Bjond, you're a cell biologist?”

“Yes, I am.”

“And a former professor at the University of Wisconsin’s School of Medicine?”

“Yes.”

“And also a former member of the medical research team at Stanford University’s School of Medicine?”

“Correct.”

“And in addition to being a published author, you at one time developed an experimental tissue transplantation technique?”

“Along with my colleague, Dr. Schultz, yes.”

“And in the mid 1990’s, you did a study of a disease called Kaposi's Sarcoma, or KS?”

“Yes, I did.”

“Before we get to your findings, please tell us: What exactly is KS?”

“That's actually a more confusing question than you might imagine, Mr. Baker. Originally, Kaposi's Sarcoma was defined as red-purple or blue-brown cancerous lesions, or spots on the skin and other organs, mainly on the lower extremities, the legs – most commonly found in older men of Russian-Jewish, Italian and African descent, living around the Mediterranean Sea.”

Baker looks confused, but of course, he’s not. He just realizes that everyone else is, or should be. He unveils some enlarged pictures of KS lesions on an easel positioned where both the Judge and the jury could see. “Are these pictures of KS?”

“Yes, it definitely looks like it from here.”

“So, what does this disease have to do with young, sick, homosexual American men?”

“Nothing, really. That’s the confusion. Today we recognize basically three completely separate kinds of Kaposi's Sarcoma. The first is what I just described, the classical kind – the cancer that Mediterranean men get. Then there's a type that is called *iatrogenic KS*, meaning caused by the drugs administered in

certain kinds of transplant surgery. And then there's the kind of KS that became the hallmark of the disease called AIDS.”

“But all of these are cancers?”

“Well, that's another good question. My research discovered that, no, at least the kind of KS seen in AIDS patients is not a cancer. It looks a lot like the cancerous tumors found in the other kinds of KS, but it's not.”

“Why not?”

“Well, for one thing, it disappears before the AIDS victim dies. No cancer does that.”

“So what is the AIDS-kind of KS?”

“It appears to be a drug reaction.”

“To what drug?”

“Nitrites, commonly called poppers.”

“It's not the result of an HIV infection?”

“Definitely not.” Dr. Bjond looks over at Dr. Gallo, seated at the defense table. “Even Dr. Gallo himself, in 1994, acknowledged that KS could not be caused by HIV. Besides, from the very beginning there were many gay men with KS who were HIV-negative and did not have any immune deficiency.”

“So this kind of KS has nothing to do with AIDS?”

“I didn't say that. No, that's not true. What is true is that is has nothing to do with the virus called HIV.”

“All right, Dr. Bjond, why don't I just let you explain....”

“First you have to understand that there is a very strong link between the use of poppers and KS. For example, the rise of KS among gay men directly parallels the rise in the use of poppers. And conversely, when the use of poppers has declined from time to time – from FDA restrictions or bad publicity – so has the incidence of KS. There is very little KS reported outside the gay male population, and very little use of poppers outside the gay male population. Even in early studies, the use of amyl nitrite was found to be common in every single case of KS. Twice as many white gay men use poppers compared to black gay men, and twice as many white gay men get KS compared to black gay men. The highest concentrations of KS lesions are found on the face, nose, and chest – also the most exposed portions of the body to a chemical being inhaled. Do you want me to go on?”

Baker looks at the jury and sees that they have gotten the point. “No, thank you. I think you've made the point that there is a high probability that the KS we have always associated with AIDS is caused by the use of nitrite inhalants, correct?”

“Correct.”

“So why didn't heart patients using amyl nitrite for years before nitroglycerine get KS?”

“A couple of reasons. First, their use was very infrequent and very low dose. And secondly, the new lines of nitrites developed for the gay community – butyl nitrite, isobutyl nitrite, and such – were refined and far more potent.”

“So KS was the result of poppers destroying the immune system.”

“No, I didn't say that, either, and it's a very interesting phenomenon. KS is actually the result of a taxed immune system trying to further enhance its immune effectiveness, not an immune deficiency.”

Baker knows that everybody in the courtroom would be totally lost at this point, and had he not had this explained to him several times over the past year, he would be lost himself.

“All right, Dr. Bjond, you'll have to explain that slowly for all of us.”

“Well, as Dr. Gallo himself said in 1994, KS appears *before* the onset of AIDS. Think of it this way: Your body tries to give you warnings when you're doing something that might damage it. You get sore muscles to tell you to stop exercising. You get indigestion to tell you to stop eating. You get a rash to tell you to stay away from things you're allergic to. The most likely explanation of KS is that it is like an allergic reaction to the nitrite inhalants, where the body is telling you stop sniffing that stuff or more severe danger is on the way.”

“An allergic reaction?”

“Not exactly, but somewhat like that. A taxed immune system can increase its activity by using an additional resource... cells that normally line the blood vessels begin to divide and their progeny acquire a different fate by becoming disease-fighting macrophage cells. This cellular transformation is visibly evident as discolored lesions beneath the skin. This transformation

process represents the effort of an already stressed body in fighting the adverse effects of this toxic chemical.”

“But what if you don't listen to your body? What if you don't pay attention to these warning signs and keep...popping?”

“Then eventually the nitrites will destroy your immune system and you will develop immune deficiency.”

“Acquired immune deficiency?”

“Yes.”

“Where your immune system cannot fight off diseases?”

“Yes.”

“And if you then get sick, say, with one of the opportunistic diseases?”

“You then have Acquired Immune Deficiency Syndrome.”

“AIDS?”

“Yes.”

“An opportunistic disease, like *Pneumocystis carinii* pneumonia - PCP?”

“Well...”

Baker wheels around to look at Bjond. He had expected a simple Yes to that question. Instead, he is now very worried he has just opened up a can of worms. Had they never asked Bjond about PCP? *Where is he going with this? Shit, did I blow it? Can I just move on?* But he knows he can't walk away from that answer, leaving the jury to wonder and perhaps risk Crawley finally deciding to cross-examine and destroy everything else Bjond had said. Very hesitantly, Baker asks, “Well, what?”

“I hate to be so technical, but PCP is another interesting case. It's been called an opportunistic disease by the CDC, and we assumed it took hold because of decreased immune function. But there's a lot of argument against that, too.”

I still don't know where this is going, but, “Go on...”

“Virtually all lung infections are bacterial, and it makes sense that a bacterial infection could develop if the immune system were dysfunctional. But PCP is a *fungus* infection whose infective 'opportunity' is not immune-related at all, but arises from tissue oxygenation problems caused by nitrite inhalant abuse. We're back to poppers most likely causing PCP as well as KS.”

Baker breathes a big sigh of relief. It had all worked out all right. In fact, much more than ‘all right.’

“Just a few more questions, Dr. Bjond. You said that KS was not a cancer?”

“That's correct.”

“So you wouldn't want to treat it with a cancer treatment, like chemotherapy?”

“No, you wouldn't.”

“Would you give a patient with the AIDS-kind of KS a drug designed to kill cancer cells?”

“There would be no point in that.”

“Would you give a patient with KS a drug to suppress the immune system?”

“That's the last thing you would want to do – the kiss of death, if you will.”

“If you gave a patient with KS this kind of drug – one, like AZT, that kills not only cancer cells but vital T cells of the immune system as well, what would happen, do you think?”

“You'd probably kill the patient.”

“Thank you, Dr. Bjond.”

Chapter Forty-Two

For most of the trial, the Global News Network had been the main source of TV coverage. Apparently, the other major networks weren't prepared to give credence to the idea that something other than HIV might cause AIDS, or that the subsequent death of 300,000 young American men and women by the drug AZT may turn out to be genocide.

Tonight is different. Tonight, one of the most trusted names on TV is hosting a one hour special on ABC. Beverly Williams has undoubtedly interviewed more statesmen and stars than any other journalist in history. She is so well known that her name and a brief biography are listed in the American Heritage Dictionary, and her interview with Monica Lewinsky in 1999 was the highest-rated news program ever broadcast by a single network.

Who knows? Tonight might set a new record, for tonight she is turning her spotlight on the AIDS trial, which has so far been watched by more people around the world than the Olympics; and her guest is Dr. Peter Duesberg.

Bill and Sarah made sure dinner was over and the dishes cleaned up in time. Even eleven-year-old Peyton had expressed an interest in watching. Just as the three of them are taking their seats in the living room, Ms. Williams begins the program.

"Dr. Peter Duesberg was once one of the world's leading virologists and a pioneer in research on retroviruses. Born and educated in Germany, he has been a Professor of Molecular and Cell Biology at the University of California, Berkeley. The scientific community stood up and took notice when he isolated the first cancer gene in 1970, and mapped its genetic structure. He was then elected to the National Academy of Sciences in 1986 and is also the recipient of a seven year Outstanding Investigator Grant from the National Institutes of Health. In his lifetime he has received such honors as the Merck Award, California Scientist of the Year, and First Annual American Medical Center Oncology Award. He was even being considered

for a Nobel Prize. But in the last twenty years, according to him, he has been vilified, abused at conferences, and had seventeen funding applications turned down for research. Publication of his work in scientific literature has been denied and his scheduled appearances on talk shows were repeatedly canceled at the last moment.” Williams turns toward Duesberg. “Welcome, Dr. Duesberg, and thank you for granting me this interview after all the hassles you’ve been through.”

Dr. Duesberg, now seventy years old, is still a handsome man with receding hair made of more salt than pepper. He looks directly at Williams and adjusts his glasses.

“It is my pleasure to finally make it on your program, Ms. Williams.”

“Dr. Duesberg, what happened?”

Duesberg laughs a little and shakes his head at the enormity of the question. Then he decides to give an equally generalized answer. “I disagreed with Dr. Robert Gallo about HIV.”

“And that was enough to essentially destroy your life?”

“Apparently.”

“How and when did all this begin?”

“Officially, it started in April of 1987, about a month after my first article appeared in *Cancer Research* magazine questioning the HIV-AIDS connection. A combined effort between the Department of Health and Human Services and the National Institutes of Health tried to create a strategy to, in their words, counter my assertions. First, they tried to publicly debate me. Then they adopted the silent strategy, hoping the media would stop covering me. Both these strategies failed miserably over the next year, and the last time they engaged me in any public forum was a written debate that appeared in *Science Magazine* in July of 1988.”

“I would have thought the scientific research community would have welcomed debate among respected members, to insure that their findings were accurate and reliable.” *Beverly Williams is really good*, Sarah thinks. *She can ask that kind of question, challenging the position of her guest without it sounding like an attack, and at the same time seem like she’s pointing fingers in the other direction.*

Duesberg didn't flinch. "Normally, you would be right. But not in this case."

"Why not?"

"I was asking questions they couldn't answer satisfactorily – embarrassing questions about their theories and the research they claimed supported them. I kept hearing statements from them like, 'the evidence that HIV causes AIDS is scientifically conclusive,' but hardly anyone would ever produce the evidence itself. And if they did, the evidence actually said the opposite of what they claimed. I was starting to get media coverage, and other people were getting more curious as well. They must have decided that the only way to stop me was to deny me any access to the press at all. If no one would print me, or carry me on TV or radio, then obviously I couldn't stir up trouble."

During the conversation between Williams and Duesberg, different cameras were producing various pictures, first of Duesberg speaking, then Williams listening, then Williams asking a question, then Duesberg waiting to answer, and so on. Somewhere, at some time, some producer had decided that no single camera angle should last more than eight seconds or the audience would get bored. When shooting musical concerts to be watched by the younger generation, that time frame had been shortened to two seconds, probably to match the kids' attention span. Fortunately, tonight there was a bare minimum of jumping from one camera to another so that what was being said was allowed to be more important than the pictures.

"You're claiming that you were systematically denied access to the media. Can you prove that?"

"Absolutely. The very first time was shortly after the *Science* article in 1988. The *MacNeil-Lehrer News Hour* sent a camera crew and interviewed me in December of that year. The story was supposed to air on February 8th, 1989. It never did. Instead they ran a few minutes of my interview followed by a lengthy diatribe by Dr. Anthony Fauci, personally attacking me."

"It's not unusual for an interview to be edited, and time given to the other side for rebuttal."

"But usually the rebuttal is about the content of the assertions, not an attack on the person themselves."

“True.”

“*Good Morning, America* then flew me to New York for an in-studio interview. I was in my room at the Barbizon Hotel the night before the interview was scheduled when I got a call saying that something had come up and the interview was cancelled. The next morning, in the time slot I was supposed to have, Dr. Anthony Fauci was preaching the standard HIV-AIDS hypothesis.”

“So you're beginning to see a pattern, yes?”

“Yes. It then happened the same way twice with CNN. And even a national Italian TV interview was stopped. And this continued over the years. In 1992, Larry King scheduled a half-hour interview with me. By this time, I was starting to get suspicious. So a few hours before the live broadcast, I called the producer and asked if everything was still on schedule. He said how surprised he was that I would call, because something urgent had just come up regarding the election and they needed the time. But when I turned on Larry King Live that night, there was nothing about the elections. Instead there was Dr. Anthony Fauci with his usual HIV pitch.”

“Were you ever successful in getting your views on national TV?”

“Twice. One was in March of 1993, on an ABC program called *Day One*. But I was told by one of the producers of that show that Dr. Fauci had tried to get the show cancelled a few days before the broadcast as well. The other was also on ABC, on Ted Koppel's *Nightline*. They promised me that the whole show would be mine and they would *not* allow Dr. Fauci on the air with me. They even hired a recent Nobel Prize winner, Dr. Kary Mullis, to interview me. But when it was aired, there was Fauci again, taking up half the time and not even responding to any of the questions or issues I had raised. Just attacking me personally, as usual.”

“Did you have any better success in the print media – newspapers, magazines?”

“Hardly. A senior writer for *Newsweek* interviewed me in 1987. The story was pulled when *Newsweek* arranged for a special honorary dinner for Dr. Robert Gallo. Four years later,

after an editorial in *Nature Magazine*, *Newsweek* again sent photographers to take pictures for the story they were finally going to run. The article was cancelled again within days. The *New York Times* mentioned my name a total of three times in the seven hottest years of this debate. The Washington Post had two mentions, one of which was a hostile article without even talking to me. *Rolling Stone Magazine* was in my lab at UC Berkeley when a call came in canceling the interview. *Harper's Magazine* cancelled a major article in 1990 after having commissioned it from a free-lance reporter who spent three years on the piece. Another free-lancer spent many months writing a story for *Esquire* that was also killed at the last minute."

"What about your home country of Germany?"

"*Bild der Wissenschaft* cancelled an article by their star reporter without explanation. *Der Spiegel* attacked me in 1993 and 1995 and refused to let me respond to the attacks."

"But surely you must have found some way to speak up in the scientific publications or research conventions?"

"Again, you would think so, but it was even worse there. Dr. Gallo and other scientists started refusing to attend conferences if I was going to be there. And if you're putting on the conference, whom are you going to choose, between the hero who is supposed to have found the cause of AIDS and some unknown doctor who has a different opinion from the rest of the world? So as long as Dr. Gallo wanted to go to some conference, he could keep me away. Or if I insisted, he would bow out. In New York in 1989, when I showed up, Dr. Gallo excused himself *because of sickness in his family*, he said. In Germany in 1990, Dr. Gallo excused himself *because of sickness in his family*, he said. Again in Germany in 1993, Dr. Gallo excused himself three hours before he was supposed to deliver the opening address, *because of sickness in his family*, he said. I began to get very concerned about the health of Dr. Gallo's family."

"They were afraid to meet you in public? How strange!"

"My questions embarrass them, which is why they didn't let me in the scientific journals, either. As a member of the National Academy of Sciences, I, like every member, have a right to publish papers in their journal called *Proceedings*, without

standard peer review. But somehow they got me banned even from the *Proceedings*. One editor rejected a paper for what he called 'lack of originality.' Another paper was 'too controversial.' Another was 'too long.' The last time I submitted to the *Proceedings*, they sent my paper to three anonymous reviewers prior to publication. Two of the three voted to block publication. Mind you, this is in a journal where I have the right to publish without *any* review. But one reviewer said that my paper had a potential for being harmful to the HIV-infected segment of the population, even though he admitted that he was no expert in the field. None of the three could point to any factual errors in the paper itself. I resubmitted this same paper when a new editor took over at the *Proceedings*. This time he sent it to four reviewers, who all voted to kill it. Twice more I submitted the paper to the *Proceedings*. Twice more it was rejected. So I became the second member of the National Academy of Sciences in its 128-year history to have a paper rejected from its journal."

"Who was the other member of the Academy to be rejected?"

"Dr. Linus Pauling, who had argued that Vitamin C might prevent cancer."

Williams shuffled through a few note cards in her lap and found the one she was looking for.

"I said at the beginning of the program that you had 17 research grants refused. Tell us about them."

"In 1985 I had been awarded a special seven year grant by the National Institutes of Health. In 1990, two years before it expired, I was told that it would not be renewed, as two-thirds of them automatically were. At least they were honest and admitted the reason was that I had questioned the cause of AIDS. But the interesting thing was that there were ten people who reviewed my grant and rejected it. One was Dani Bolognesi, who was a consultant for Burroughs Wellcome, who manufactured AZT; and another was Flossie Wong-Staal, a former researcher for Dr. Gallo. I found out that three of the ten had never even reviewed my grant and therefore didn't vote. And a fourth had given his vote by phone to the group, and he had voted to support me. After I lost that grant, there were sixteen others...."

Williams realizes that Dr. Duesberg could probably tell her a long story about each one of them, and he was obviously going to take full advantage of this opportunity on national TV, after many years of his media blackout. She had decided, after his previous trials and tribulations, to give him free rein and just let him talk. But there's a limit, and so she broke in gently. "How about just telling us about the highlights from one of them...."

"Well, let's see.... Along with a respected inhalation toxicologist, Professor Otto Raabe, I proposed to test the health hazards of nitrites – poppers – on mice. Three years in a row this proposal was rejected, because, they said, of the lack of preliminary experiments. But preliminary experiments are not a requirement for a grant application. A good friend, the director of the National Institute of Drug Abuse, Dr. Harry Haverkos, even volunteered to re-write the proposal for me so there was no chance there was anything inherently wrong with it. But, he said, he could not re-write the name Duesberg on the bottom. It was rejected again."

"Did you ever try to get the White House or the President involved?"

"Yes. Jim Warner was an advisor to President Reagan at the White House. He heard about me in 1988 and arranged to sponsor a public debate. This would have forced the HIV issue into the public spotlight. But even that debate was cancelled a few days beforehand. Warner told me it was by order from above."

"Are you disappointed, are you bitter that more of your peers didn't join you in your fight?"

Duesberg looks like he had considered that question numerous times over the past two decades, and recently reached this conclusion: "After what they did to me, would you have risked losing your reputation, your standing, even your livelihood to back me up?"

Now that the facts were on the table, Williams had reached the part of every interview when her special expertise took over. The next few minutes were what set her apart from the thousands of other journalists.

“After all of that, how do you feel, Dr. Duesberg, now that the truth seems to be coming out in this trial?”

“I’m very sad. I almost wish I had been proven wrong all these years. Instead, it is being confirmed that we – and I mean the medical and scientific research community as a whole – are responsible for the unnecessary deaths of over 300,000 people. How could I feel joy, or even vindication, that I was right, when the results of the last twenty-five years have led to such tragedy?”

“But don’t you feel that you did the best you could to try to get your viewpoint out there?”

“I would like to think so. But the best I could was not good enough, now was it?”

“Well, Dr. Duesberg, I think we in the media owe you a tremendous apology for our part in your tragic struggle for the truth. Although I was not one of those who rejected an interview with you, I did not pursue one, either, when perhaps I could have and should have. And I think the entire worldwide media must take responsibility for not doing our job in this case. So I would like to say to you, Dr. Duesberg, I’m sorry.”

There’s a tear that falls from the left eye of Beverly Williams. Duesberg obviously does not know how to respond to it any more than he does to Williams’ apology. He just sits there, stunned and quiet, while ABC goes to commercial.

Chapter Forty-Three

November 1, 2006

Byline: Erin Dougherty,
Arizona Tribune Staff Writer

PHOENIX, AZ – The heart of her story is not unique. In fact, it is shared by hundreds of thousands of men and women who lost a loved one to AIDS in the last twenty-five years.

Sarah Meadows, born Sarah Noyes in Greenwich, Connecticut, 1967, was accustomed to the finer things in life. Her father was a well-known doctor, prominent in Republican politics both statewide and nationally. Her mother was a graduate of Wellesley College and had blue blood coursing through her veins. Sarah lacked for nothing, from comfort and money to the finest education and friends that money could buy.

It was a perfect life, an American dream come true; that is, until early in her senior year in high school, when her 15-year-old brother Greg announced that he was gay.

“My dream suddenly turned into a nightmare,” Sarah recalls. “My parents simply couldn’t deal with it. Most of my friends deserted me, like I had done something wrong. But worse than that, everyone abandoned Greg, as if he had leprosy.”

Sarah was the only one who stood by her little brother, gently persuading her parents over the next year that homosexuality was not a disease or a curse, and easing him back into the family. She became his guardian, his mentor, his best friend.

When Sarah graduated and left home to attend Amherst College for a degree in Journalism, she made Greg promise to stay in Greenwich and finish his last two years of high school. Sarah would drive home every other weekend to visit Greg and support him. It meant that Sarah had virtually no social life for her entire freshman and much of her sophomore years.

“That was okay with me,” Sarah admits. “I kind of slacked off in high school a little, didn’t apply myself as I should have,

and it was good to focus on my studies and on Greg and forget about sororities and boyfriends for a while. Besides, Greg would have done the same thing for me if the tables had been turned. There was no way I could just leave him hanging.”

It was during Greg’s senior year when the devastating news surfaced. It was a routine physical for life insurance his parents wanted to take out on him before he left for college, a simple blood test that normally means nothing.

“I remember when Greg called me to tell me he was HIV-positive. I was on a date, but ten minutes later I was driving south, hoping to get home before our parents found out.” Sarah’s voice gives only a hint of the desperation she felt at the time.

None of the rest of the family tested positive for HIV. Just Greg. He had three homosexual lovers, but they too all turned out to be HIV-negative.

“This was early 1988, and we weren’t exactly sure what to do. Like an awful lot of people, we believed what we were being told by the ‘experts’ – that HIV caused AIDS, and that AIDS was always fatal – so we had no other choice but to accept the fact that Greg would be dead in two or three years unless the HIV could be stopped.”

They took Greg to their family doctor. Then they took him to an AIDS specialist in New York City, and finally to the Mayo Clinic in Rochester. The story was the same everywhere.

“They all told Greg to start taking AZT, the drug that had been approved just the year before to treat AIDS.” Sarah winces as she remembers. “They said it would kill the HIV and prevent him from getting AIDS, or at a minimum prolong his life. Since there was no contrary information being widely publicized, we had no reason to doubt this advice. It turns out that Greg was part of the first group of HIV-positives who had no symptoms of AIDS but were prescribed AZT anyway, despite assurances from the drug company to the FDA approval committee that they wouldn’t do that. But we didn’t know that!”

There were two problems, however. Greg hated taking pills. He always had. It had been a battle to try to get him to take vitamins when he was younger, and finally the family had given up. Apparently it wasn’t some philosophical stand against drugs

as much as a physical abhorrence to swallowing a pill. Or perhaps it was completely psychological. At any rate, he would choke violently anytime he tried.

The second problem was that Greg was in perfect health, and it was hard for him to believe he needed medication. Hard for anyone to believe, for that matter. Though not big into competitive team sports, Greg loved cycling and wanted to ride in Connecticut's annual 100-mile bkm/Steelcase Bike Tour to help raise money to fight MS that June.

"I would say that in March of 1988, at eighteen years of age, Greg was in top physical condition. Strong, muscular, toned, and aerobically fit," Sarah offers. "He could easily ride his bike for 5 or 6 hours straight and not show any signs of weakness or tiredness."

But the doctors were unanimous. It was just a matter of time before his HIV brought on the symptoms of AIDS, and Greg needed to take AZT if he had any chance of surviving.

"I got a call from my mother at Amherst. She was hysterical and at her wit's end. Greg was refusing to take his AZT and no one had been able to convince him otherwise." Sarah hesitates for a moment, trying to hold back the emotion that was building. "I told Mother that I would drive down that weekend and have a talk with Greg, and that he would listen to me and do what I told him."

By Sunday night they had a compromise. Greg would ride in the MS Bike Tour drug-free, and then start taking the AZT when it was over. It was the best Sarah could do, and it wasn't easy.

"I had to remind Greg who it was that stood by him the last few years through all the trouble, and basically called in all the favors he owed me. I won't say that I blackmailed him into taking AZT, but I pulled out all the stops and put on all the pressure I could to get his commitment. After all, at the time I thought it was the only way I could keep my brother alive, and I figured he was just too young or too stubborn or too much in denial to realize the seriousness of the situation." Sarah bows her head for a minute, seemingly torn between the grief and anger. "I never gave any credence to the idea that Greg's own intuition was telling him not to take the AZT."

Greg left that August to attend the San Francisco Art Institute, to follow his passion and his dream of being a world-famous painter. He and Sarah would talk frequently on the phone, and Sarah even visited Greg during Spring Break of her junior year.

“He didn’t look as good as I remembered him,” she recalls. “I just thought he was a little run down, maybe partying too hard, enjoying his new-found freedom from the confines of Connecticut. After all, he was finally surrounded with people who understood and loved him, and I would have expected him to revel in these new friendships.”

But it wasn’t just the late nights or the lovers. At the end of his first year at the Art Institute, Greg was too sick to continue. He returned to his family in Greenwich and went to bed. Never a whiner, Greg began to complain daily about the headaches and muscle aches and nausea. The doctors, of course, said that his HIV had caught up with him and he was now in full-blown AIDS.

“My senior year at Amherst is a blur: Monday through Thursday in classes, then drive home and be with Greg on the weekends. He just got worse and worse. He never had KS or anything like that, but he eventually developed PCP – opportunistic pneumonia.” Sarah’s eyes began to water and her voice started to crack. “There was nothing else we could do except watch him die.”

Which he did on April 4, 1990. He was twenty years old. Sarah couldn’t go back to school after the funeral and withdrew from that semester. She stayed away for a year and ended up transferring to Stanford University in Palo Alto, California where she not only finished her Journalism degree but also got a B.S. in Alternative Health after meeting her future husband at Palmer West Chiropractic College.

“I wanted to be close to San Francisco, where Greg had felt at home, and I immersed myself in my studies to try to get over his death. I also offered my help at a local AIDS clinic as often as I could. But it wasn’t easy, and it took a long time for me to feel even somewhat normal again.” Sarah looked out the window as

she said, “I loved my brother very much...and he was so talented.”

Did she blame herself for his death?

“I blamed a lot of people, including myself. I blamed his lovers for giving him AIDS. I blamed the doctors who couldn’t cure him. I blamed God for creating a world where bad things happen to good people. I mean, it just wasn’t fair, to Greg, to me, or to our family. My parents have never really recovered, to this day.”

The anger began to make its way to the surface.

“Of course I was angry. I was incensed back then, almost paralyzed with the rage from time to time. But I have to say that it was nothing compared to what I have felt listening to the testimony in this court case. However angry I was in 1990 pales in comparison.”

The intensity of her voice, the energy of her words told a story beyond description.

“I now have even more people to be angry at – Dr. Robert Gallo, for lying to us about HIV; the FDA for so carelessly approving AZT; Burroughs Wellcome for its greed and manipulation; and the entire medical community who turned out to be a bunch of mindless puppets. I mean, where were the doctors of this country, the very people who should have known better, or the ones who at least should have stood up in sufficient numbers and asked the right questions? But especially, where were the press and the media – my own peers – and our investigative journalists?”

She laughs through her tears at the irony of what comes next. “Where was *60 Minutes* when we really needed them? Is everyone so afraid these days of losing their job if they rock the boat, that someone like Robert Gallo can get away with killing 300,000 people because of incompetence, or pride, or just plain arrogance?”

Sarah blows her nose and wipes her eyes and sits back in her chair. She talks about knowing now that the right information had been there all along, even before Greg died, but how hard it was to get to it through the media blackout that prevailed.

Can she forgive them all?

“I’m working on it. There’s a New Age saying that a person is doing the best they can with what they’ve got. Mostly I think that’s BS. You could use that to excuse Hitler if you wanted to – he was just doing the best he could with what he had. I don’t believe it. I mean, I can’t believe that the people we trust the most with our health – our government, the FDA, the drug companies, and especially our doctors – couldn’t do better than this for the last thirty years.”

Sarah bows her head and almost whispers.

“But the hardest person to forgive is myself.” She pauses. “It’s funny. There are a lot of people out there who are in my same position; they lost someone they loved dearly to AIDS, and many of them needlessly, and solely because they took AZT at the urging of the people they counted on for help. I have no trouble forgiving any of them for what they did or the advice they gave. I’m even sure, in this case, they *were* doing the best they could with what they had. So why is it so hard to forgive myself the same way?”

Does she wish this trial had never happened?

“No, I’m glad the truth is finally coming out. Yes, it was really, really rough to live through it all again – really tough to realize the role I had played in Greg’s tragic and unnecessary death. But it would have been worse to keep all of this a secret. If nothing else, we – the American people – better wake up and smell the coffee. Enron and Tyco and HealthSouth and Adelphia and WorldCom and Rite Aid should be enough to prove that there are obviously criminals in high places who care more about money and power than human life, and we better start to question everything that comes our way from our government and from the so-called medical and pharmaceutical establishment. And I do mean ‘everything.’”

What does Sarah intend to do now?

“My best answer is this: I want to redeem myself and my brother’s death. I don’t want Greg to have died in vain. But it’s not just about Greg. They literally killed thousands of gay men – more than 300,000 HIV-positives – in those ten years. It was murder. It was genocide. And now there’s proof! So I am

dedicating my life and my energy to making sure nothing like this can ever happen again.”

Exactly what form will that take?

“I can’t answer that specifically right now. Most immediately, I want to help make sure the whole world knows what happened in this trial, and I’m in a pretty good position to do that at the moment, right where I am. After that, who knows?”

Chapter Forty-Four

“Your Honor, I’d like to re-call Don Harrison to the stand.”

Sarah is still getting notes passed to her from all over the courtroom after more than two dozen people stopped her on the way in, congratulating her on the interview in the Tribune the night before. “Took a lot of courage,” “meant a lot to a lot of people,” “proud of you,” “thanks for saying what I couldn’t.”

She wishes for a moment that she could get that kind of praise for something she wrote, rather than something she said. But she was also glad to know that she hadn’t been wrong – there were a lot of people out there suffering from the guilt of their role in the death of a loved one from AZT, and her own story might make a difference and help ease their pain.

Of course, unlike *USA Today* or the *Wall Street Journal*, the Tribune only covered Arizona; so it was mostly the locals and the reporters from around the world, now in Phoenix to cover the trial, who had read the interview. But Sarah had gotten a call this morning from Dr. Keating at GNN and she was going to appear on TV tonight as well. *Now that was something the whole world would see. And maybe I’ll write a book when this is all over.*

Sarah puts the congratulatory notes down and picks up her own yellow pad as Harrison makes it to the witness stand and Baker starts his questions. She had forgotten Harrison had already been sworn in a couple of weeks ago.

“Mr. Harrison, I wanted to bring you back to the stand to tie up some loose ends, statistically, about AIDS and HIV, based on your expertise as mathematician and statistician with the Centers for Disease Control and Prevention.”

Baker, of course, had not questioned Don Harrison the first time; that had been Messick. But it didn’t really matter.

“So, Mr. Harrison, let’s start with the number of HIV-positives in the United States. When did we first start counting the number of people who have HIV?”

“That would have been in....”

Baker interrupts immediately. "I'm sorry, Mr. Harrison, but that was a trick question, and I asked it that way purposely. All the testimony in this trial has proven that we have no idea how many people in the country have HIV, because we don't test for HIV. We test for the antibodies to HIV instead, which means they no longer have the active HIV itself. So your answer should have been, 'Mr. Baker, I can't answer that question because we don't test for HIV.' From now on, please listen carefully to my questions and answer them just as carefully. It's important that anything you say is as precise and accurate as possible."

Baker gives Harrison time to think about that. Harrison can't say anything in rebuttal, of course, so he just sits there.

"Okay, Mr. Harrison. I'll rephrase the question, and this time it's not a trick. When did we first start counting the number of people in the United States who have the antibodies to HIV?"

Harrison waits for a minute to make sure he's absolutely correct before he says, "1984."

"And how many people in 1984 had the antibodies to HIV – what we have been calling 'HIV-positives'?"

"A million."

"Exactly one million?"

"Yes..." and then Harrison thinks twice. "Well, no."

"Which is it, Mr. Harrison?"

"Well, obviously, Mr. Baker, we didn't test everyone in this country and find exactly one million of them had HIV." Harrison sees Baker glaring at him. "Sorry... the HIV antibodies."

"So how did you come up with the figure of one million?"

"By extrapolation. Based on the percentage of HIV-positives we found in a representative sample, we took that percentage and applied it to the rest of the population, and then rounded it off."

"Okay, Mr. Harrison, I won't argue about that. Let's agree that there were one million people in the U.S. who had the antibodies to HIV in 1984. Now, how many did the CDC say had it in 1997, thirteen years later?"

Harrison flips through a bundle of papers he brought with him. "700,000."

"But I thought that in 1984 the CDC said that HIV was a highly contagious epidemic spreading rapidly across the country

and into the heterosexual population as well? How could the number of HIV-positives go *down* in that time?"

Harrison looks rightfully perplexed. "I can't answer that question, Mr. Baker. I just report the numbers."

"I doubt anybody could, Mr. Harrison, because HIV appears to violate Farr's Law, doesn't it? Do you know what Farr's Law is, Mr. Harrison?"

"Yes, sir, I do."

"Well then, why don't you tell the court?"

"Farr's Law basically says that contagious diseases spread exponentially. In other words, the number of cases of a new epidemic will start small, then explode into the population as rapidly as the germ can spread from one person to another, and then taper off again as immunity to the germ can develop in the human immune system or some kind of prevention – like a vaccine – is discovered."

"And in your opinion, does HIV meet those criteria?"

"Yes, it does."

"It does? How so?" Baker looks incredulous, but of course it was the answer he expected from Harrison.

"Well, the number of AIDS cases started off very small in the early 1980's, built up to a peak in the early '90's, and has been tapering off ever since – at least in the U.S."

"That's true, Mr. Harrison, and we'll get back to that in a minute. But that wasn't the question I asked. I asked you about HIV, not AIDS."

Harrison looks totally confused now. Baker, on the other hand, is actually grateful to take this time to make sure the jury understands the difference between HIV and AIDS, since the media for the last twenty-five years has been equating the two in everyone's mind.

"Mr. Harrison, according to the CDC, AIDS is a syndrome of different diseases caused by a virus called HIV. By definition, it is the *cause* that is *contagious*, not the disease – in this case, the so-called Human Immunodeficiency Virus. And in order to be called 'contagious' according to Farr's Law, the number of people infected with HIV has to grow exponentially. That's what Farr's Law says. But *you* already said that the number of HIV-

positives went *down* from 1984 to 1997. So let me ask you the question again: does the virus called HIV conform to Farr's Law?"

Harrison feels like a kid caught red-handed with a cookie – the first instinct is not to say anything at all. Baker, however, isn't going to let Harrison off the hook.

"Mr. Harrison, if HIV is contagious, shouldn't the number of people who have it go *up* dramatically, especially during the first few years, as Farr's Law requires?"

When Harrison still doesn't answer, Baker continues, "So I will ask you again, Mr. Harrison, based on the statistics, does HIV meet the criteria of Farr's Law and earn the label of *contagious*?"

Harrison didn't know what to do. For thirty years the CDC had been telling everyone how contagious HIV is. How could he say anything else and keep his job? *Maybe Mr. Baker will let me slide and move on, just this once.* No such luck.

"Mr. Harrison, are you going to answer my question and tell the court how the CDC could call HIV contagious when, by its own statistics, the number of HIV-positives went *down* in the first 13 years?"

Harrison just sits there, praying for this to be over soon.

"I wouldn't say anything if I were you either, Mr. Harrison. So let's move on."

Harrison says a private "Thank you, God" while Baker consults his notes at the lectern.

"You said, Mr. Harrison, that the number of HIV-positives went from one million in 1984 to 700,000 in 1997. What was the number of HIV-positives in 2005?"

Harrison fretfully paws through his papers. "One point three million."

"Over one million in 2005, Mr. Harrison?"

"Yes."

"Let me see if I have this straight. We start off with one million HIV-positives in 1984, we give 300,000 of them AZT to treat their AIDS, they all die, and we're left with 700,000 HIV-positives in 1997. We then stop giving AZT and get it out of this country and between 1997 and today we're back to the one

million people with the HIV antibodies, and more. Sounds to me that statistically, AIDS is more closely related to AZT than HIV, wouldn't you say?"

Harrison doesn't want to say anything, ever again. But of course he will have to, because Baker is far from finished.

"Now let me ask you about 'clusters,' Mr. Harrison."

Harrison certainly isn't going to volunteer any information, that's for sure. "What do you want to know, Mr. Baker?"

"Why don't you tell the court what a 'cluster' is."

"A cluster is a geographical area where a large number of incidents of a contagious disease occur statistically."

"In other words, Mr. Harrison, if a disease is in fact contagious, then the people who live around the area where that germ is will get sick more than those who don't live in that area, and we'll see a *cluster* of the disease, correct?"

"Correct."

"This makes logical sense, doesn't it, that if we have a contagious germ going around in some area, that the number of cases of the disease that germ creates will be much greater than in other areas?"

"Yes."

"Tell me, Mr. Harrison, do we have clusters with the disease called AIDS?"

Harrison is relieved, temporarily. "Definitely."

"Where are those clusters?"

"New York City, Los Angeles, San Francisco, Miami – the larger cities, for example."

"And what about clusters of HIV?"

Harrison's relief didn't last long. He's back in the fog, certain that he's headed for more trouble that he can't see coming. "I'm not sure how to answer that question. There are obviously more HIV-positives in those cities as well."

"But that's only because there are more people in those cities, and the number of HIV-positives is based on a percentage of the population, correct?"

"Yes, correct."

"So perhaps I should ask my question this way: If a *cluster pattern* is the normal result of a contagious disease, and is, in

fact, required for a disease to be called ‘contagious,’ and if HIV causes AIDS, and if AIDS was clustered in these bigger cities, wouldn’t you have to find that HIV was also clustered in these cities? I mean, wouldn’t the percentage of people who live in these cities who were HIV-positive have to be greater than those living elsewhere in the country, as this so-called ‘contagious’ disease spreads from person to person in the cluster?”

Harrison signs heavily. “I suppose so.”

“But the percentage of HIV-positives in the areas of the greatest number of AIDS cases isn’t any different from anywhere else, is it?”

“No.”

“And therefore, there are no clusters of HIV-positives, are there – no place where the percentage of the population with HIV was greater than anywhere else?”

“No.”

“So wouldn’t it be logical that if we have a cluster of AIDS cases in the cities that you mentioned, but not a cluster of HIV-positives in those same cities, that there really can’t be any relationship between AIDS and HIV, and that HIV itself cannot be contagious?”

“I suppose so.”

“You suppose so? But isn’t that your job, Mr. Harrison, to collect these statistics and analyze them and tell us what they mean?”

Harrison is certain he was going to be fired now. *Oh, well, what the hell.* “Yes, it is.”

Well, at least you’re being honest, even though it might mean the end of your career with the CDC. But Baker can’t let his newfound respect for Harrison interfere with his questions.

“Mr. Harrison, explain this to me. The virus called HIV, even if it’s not contagious, is supposed to cause AIDS in every human being it infects. At least that’s what the CDC has us believing, and why AZT was given to HIV-positives even if they weren’t sick at the time. So, in the years from 1997 to 2005, what happened to the number of AIDS cases nationwide?”

“It went down significantly.”

“But you just said the number of HIV-positives went up during that same time, from 700,000 to 1.3 million.”

Harrison just sits there.

“Mr. Harrison, the number of AIDS cases went *down*, while the number of HIV-positives went *up* – almost doubled – even though no known cure and no vaccine have been discovered?”

This time Harrison looks at Crawley for help, and then the Judge, but doesn’t get any.

“Mr. Harrison, what does the CDC say was the main reason for the number of AIDS cases to suddenly drop by more than half from 1995 to 1997, and then continue down since then?”

Harrison is still on his toes enough not to get into a trap he can easily avoid. “I’m not part of that branch of the CDC, Mr. Baker, and I would not be so presumptuous to speak for them. You’ll have to ask that question of someone else.”

“Well, Mr. Harrison, no matter what they may say, one thing’s for sure: we stopped giving people AZT in 1996. Isn’t it odd that as soon as we stopped prescribing AZT, the AIDS epidemic in this country was virtually over?”

Knowing that Harrison can’t and won’t answer, Baker goes back to his notes. *So far, so good.*

“Okay, Mr. Harrison, let’s talk about the word ‘infectious.’ Does the CDC claim the virus called HIV is ‘infectious?’”

“As far as I know, yes, Mr. Baker, we do.”

“Let’s make sure we’re all on the same page. Do you want to give us a definition of ‘infectious,’ Mr. Harrison, or shall I read the definition from a dictionary?”

“Why don’t you read it, Mr. Baker.” *Please.*

“All right.” He goes to his table and opens a large book to a pre-arranged page with a sticky note. “The Miriam-Webster Dictionary says it means ‘causing infection,’ which I guess is pretty typical of a dictionary.” Baker lets the courtroom snicker a bit while he flips to a different page. “So let’s look up ‘infection.’ It says, ‘the act or result of affecting injuriously.’” Baker closes the dictionary and returns to the lectern.

“Mr. Harrison, can we agree that ‘infectious’ means that the virus, in this case HIV, is going to cause harm to the body it infects?”

Harrison thinks a long time about the corner Baker could be painting him into, but he just doesn't see how his answer could cause that much damage. "Yes, I'll agree to that."

"So then, Mr. Harrison, when they say that HIV is 'infectious,' they are saying it is going to cause damage to the person who's HIV-positive?"

Harrison thinks for another long time. "Yes, I can agree with that as well."

"But you said, Mr. Harrison, that the number of HIV-positives in this country went from 700,000 in 1997 to 1.3 million in 2005, while the number of AIDS cases was cut in half in that same period." Baker realizes he missed a question that he should have asked earlier. "Before you comment on that, Mr. Harrison, which I'm sure you're very anxious to do, please first tell the court how many people have died from AIDS since we started counting in 1984?"

Harrison doesn't need to look this one up. "Just under 600,000."

"So if HIV is so infectious, Mr. Harrison, what about the other 700,000 HIV-positives? Why haven't they gotten AIDS in the last twenty-five years?"

"The CDC says that it takes time for HIV to start causing problems in some people – that there is a latency period..."

Baker cuts him off abruptly. "No, Mr. Harrison, the CDC doesn't say that; Dr. Gallo says that and the CDC mimics his words. And every year since 1988, they've had to add another year to this 'latency' period to explain why the rest of the HIV-positive population didn't get AIDS that year. This year it's up to a twenty-five year latency to try to keep some link between HIV and AIDS and yet justify why there are 700,000 perfectly healthy Americans who are HIV-positive; although I think a few years ago they got so embarrassed they had to say something more general, like 'we don't really know how long a latency period HIV might have.' But they still guarantee that everyone is going to get AIDS and die if they have HIV, don't they, Mr. Harrison?"

Harrison clams up again.

"Well, Mr. Harrison, they have to, don't they, if they still want to call HIV 'infectious'?"

I almost feel sorry for Harrison, but he and the CDC had it coming. Time for the next zinger.

“Then let’s talk about the ‘first epidemiological law of viral and microbial diseases,’ Mr. Harrison, which says that men and women must be affected equally by an infectious disease. After all, a virus cannot differentiate between *male* and *female* when it attacks, can it?”

“No, it can’t.”

“You’re right, it can’t, Mr. Harrison. And that’s what this first epidemiological law says. So tell me, what percentage of men and what percentage of women in the United States has AIDS?”

There’s no point in holding back. Might as well give the man what he wants without playing games. “Ninety percent of all AIDS cases are men, Mr. Baker.”

“Ninety percent?”

“Yes.”

“That doesn’t sound like an equal distribution between men and women, does it?”

“No, it doesn’t.”

“Here’s a question for you, Mr. Harrison....” Baker looks at the jury while asking it, to make sure they don’t get confused. “What is the percentage, male-female, of the incidence of HIV?”

Harrison must have known that was coming because he was already searching his notes frantically for the answer.

“It’s about fifty-fifty.”

“Whoa...HIV is found equally in men and women, but AIDS is ninety percent male?”

“Yes, sir.”

“How can that be, Mr. Harrison, if HIV causes AIDS and HIV cannot discriminate between men and women?”

“I can’t answer that, Mr. Baker.”

Baker is ready for the kill. “All right. HIV doesn’t meet Farr’s Law of exponential growth, there is no cluster pattern for it, it doesn’t cause infection in every body it inhabits, and AIDS doesn’t conform to the first epidemiological law of viral and microbial diseases. But you still want to call them *contagious* and *infectious*, Mr. Harrison?”

There's no answer.

"*Contagious* based on what?"

Still no answer.

"*Infectious* based on what?"

Harrison knows it's almost over. *Just a few more minutes...*

"I assume from your silence, Mr. Harrison, that the CDC has decided to ignore Farr's Law and the requirement for a cluster pattern and the definition of 'infectious' and the first epidemiological law of viral and microbial diseases in the same way that Dr. Gallo decided to ignore Koch's Postulates and call HIV the cause of AIDS...."

"Objection." Crawley couldn't get to his feet fast enough.

"On what grounds, Mr. Crawley?" Judge Watts sits up in her chair, curious about Crawley's answer.

But Crawley doesn't know. All he knows is that he objects to the whole thing, the whole trial, and is reaching the end of his rope. Unfortunately he can't really think of a good objection to this particular question, and it's clear the Judge will find against him anyway. Besides, the witness obviously isn't going to answer.

"Your Honor, I'll withdraw my objection."

Crawley sits down and Judge Watts settles back again. "Proceed, Mr. Baker."

Baker doesn't care either whether Harrison answers or not. He's getting his point across to the jury, no doubt.

"Mr. Harrison, while the CDC has been telling everyone that HIV is contagious and infectious, which it clearly is not, it's also been saying that it can be transmitted sexually. That's not true either, is it, Mr. Harrison?"

Not a sound comes from the witness box.

"So AIDS is not a sexually transmitted disease, and there's no danger whatsoever of it spreading into the heterosexual population as we were told, is there?"

Harrison is still silent.

"In fact, if there was any cluster pattern to be found, it would be that AIDS is clustered in those cities with the highest homosexual population, where the highest incidence of the use of poppers occurs, isn't that correct, Mr. Harrison?"

Baker looks over at the jury and sees that they are interpreting Harrison's silence exactly like he wants them to – a sign that what Baker is saying is irrefutable. Actually, this isn't bad. As long as Baker doesn't ask for help, the Judge seems perfectly content to let the jury decide whatever they want to from Harrison's lack of response.

This was almost fun. I wish I had more questions for Mr. Harrison, but it's time to move on.

Chapter Forty-Five

“Dr. Howard, please tell the court what you have been doing for the past year.”

“Among other things, I have been the head of a research commission studying AIDS, which is why I was subpoenaed to testify today, I presume.”

“Yes, sir, it is. So tell us, who's on this commission?”

“There are twelve of us, one representative from each distinct field of medicine and medical research, from all over the world.”

“For example?”

“There is a pathologist, an oncologist, an internist, a pharmacologist, a virologist, a bacteriologist, a biologist, a toxicologist...”

Baker doesn't want the jury to get lost in all these titles, so he interrupts. “That's fine, Dr. Howard. Basically, you've got just about everything covered, it seems.”

“As far as we can tell, yes.”

“How was this group chosen, do you know?”

“Yes, somewhat. At least I know that they are all fairly young men and women who have shown themselves to be leaders in their field, but are too young to have been involved in any of the AIDS debates in the '80's and '90's, and therefore have no preconceived ideas on the subject. In fact, one of the criteria was that none of us had actually treated an AIDS patient, or had a friend or relative die of AIDS, so there would be no emotional prejudice either. Essentially, it was the same way you chose this jury, to create a group of twelve of the most objective minds you could find.”

“And who created and funded this commission?”

“We don't know.”

“Surely someone is paying you to do this, aren't they?”

“Of course. We just don't know who it is.”

“Why not?”

“Apparently they did not want us to be swayed in any way in our research because of their own position, whoever they are and whatever that position might be.”

“So you have felt no pressure to arrive at any certain conclusions?”

“To the contrary, we have been totally free to arrive at our own conclusions, based solely on our research.”

“And you approached this work with total objectivity?”

“I can't say that, actually. We've all been exposed to the media bombardment of the HIV-AIDS hypothesis that continues right up until today, which we couldn't escape completely. But we tried very hard to be totally objective, in your words, yes.”

“You compared your group to this jury a minute ago. They, of course, will have to reach a conclusion shortly. Has your commission reached its own conclusions?”

“Yes, we have, and they are being published in a book that I believe will be released next month. But we had a tremendous advantage over this jury.”

“What was that?”

“We had more than just testimony from witnesses to rely on. We had literally hundreds of medical papers and published research and articles and books and other documentation to help us make our decision.”

Baker turns to address Judge Watts. “Your Honor, Dr. Howard and his commission have been very kind to provide us with copies of all the medical papers and published research and articles and books and other documentation they used, as he said, to help them make their decision, and I would like to present them to the court at this time and offer them as plaintiffs' exhibits, so that the jury does, in fact, have access to all the pertinent information available to make their own decision.”

Without knowing exactly what she was getting into, Judge Watts agrees. “Very well, Mr. Baker.”

Baker turns 180 degrees and nods to a guard at the back door of the courtroom, who then opens the door. Six men appear, wheeling utility dollies in front of them, each with four large white file cartons stacked one on top of another. As they proceed up the center aisle, through the gate at the rail and turn left

toward the plaintiffs' table, Judge Watts silences the murmur that had started in the courtroom at the sight of the volume of material.

Baker directs traffic as they stack the twenty-four cartons up next to the table where the jury has a good view of them. As the men and their dollies make their way back out of the courtroom, Baker opens a carton and shows the Judge, the jury, and the witness the contents of reports and magazines.

"Dr. Howard, is this what you and your commission had at your disposal – what you used to make your decision?"

Howard looks at the Judge. "Your Honor, I'd like to inspect those boxes before I answer that question."

When Judge Watts nods her approval, Howard leaves the witness stand, goes over to the plaintiffs' table, and thumbs through the box that Baker has opened. He then takes the top off another box and does the same thing. Finally, he looks at the remaining boxes, checking each one carefully but without opening them. Satisfied, he returns to the witness stand.

"So, Dr. Howard?"

"Yes, Mr. Baker, those look like the boxes I personally packed. I placed a special mark on them which I can clearly see."

"Then, Dr. Howard, would you please tell the court what decision your commission reached after studying all these materials."

"There are actually a number of different conclusions. The first is that this virus being called HIV does not – rather, *can not* cause the disease known as AIDS."

"*Can not?*"

"No sir. HIV simply cannot be the cause of AIDS, period. For a number of reasons, not just the fact that it doesn't meet all of Koch's Postulates, or Farr's Law, or the required cluster pattern, or so on. Only one of those facts would be necessary for us to come to our conclusion, that there are thousands of cases of AIDS where there is no HIV present in any form – active or as an antibody. Imagine, having an infectious disease but not having what supposedly causes it! You simply cannot have no HIV at all and still claim HIV as the cause of the disease. It violates good common sense, much less all of our accepted scientific practices.

In short, our commission decided that Koch's Postulates are as valid today as they were one hundred years ago, and HIV violates at least three of them and therefore cannot be called the cause of AIDS."

"So what *does* the virus called HIV do in a human body?"

"We don't have any idea. There is no independent research to demonstrate what it does. It might not be involved in the disease called AIDS in any way, shape, or form. We don't know. One of our recommendations as a commission is that extensive research be done to find out what the virus called HIV actually does in our bodies, and then give it a new name to reflect its actual role when we find out. At the present time, being HIV-positive means absolutely nothing in reality, except that you will wrongly be made to think you have AIDS or could get AIDS and be pressured to take drugs to prevent it."

"But this disease called AIDS does exist, does it not?"

"Definitely. But AIDS – Acquired Immune Deficiency Syndrome – didn't just start in 1981. There were cases – not thousands, mind you – but cases we have record of in the '70's that simply didn't get diagnosed as AIDS because the disease was not recognized or defined until the early '80's."

"So what is AIDS?"

"AIDS, in simple terms, and as it was originally defined by the CDC – and as it should still be defined today, by the way – is a syndrome, a condition where the immune system of a victim has been compromised by some outside interference, and then one of a number of specific diseases have taken that opportunity to infect the body, which in most cases leads to death from the inability to fight off the disease."

"And what did you decide causes AIDS, if HIV does not?"

"Well, here's where our commission felt we had to start making a clear distinction. Just like was done with the disease Kaposi's Sarcoma, we had to separate AIDS into three – actually four distinct categories."

"Four?"

"Yes. The first is the disease that began in the 1970's and became public in the early 1980's – what we call the Classic AIDS case of the gay man who loses his immune function and

then develops an opportunistic disease and dies. There were thousands of them whose immune system had finally deteriorated so badly that medical science could not save them, no matter what. And we still see some of that kind of AIDS today.”

“And did you decide what was causing this Classic AIDS, as you called it?”

“Yes, we did. After looking at all the evidence, we believe there could have been a number of lifestyle factors involved, including malnutrition and sleep deprivation; and a number of drugs involved, including recreational drugs, antibiotics, and steroids. But we are certain that one of the main culprits was nitrite inhalants – poppers – although there is a tremendous need for grant money to do the research required to support our findings.”

“Give us a few reasons why you came to this conclusion.”

“Well, you've had a lot of testimony about this, but I would sum it all up to say that there is overwhelming evidence that nitrites are highly toxic to the human body, that initially the immune system will activate and try to fight this invasive chemical, producing, among other things, the KS lesions that were originally the hallmark of AIDS. If there is continued use of the nitrites, they will so imbalance and destroy the normal functioning of the immune system that one of several deadly opportunistic diseases can manifest. In addition, the appearance of poppers on the gay scene coincides perfectly, in terms of timing, with the appearance of AIDS. And one other thing, which I don't think you've heard about in this trial: nitrites turn most classes of antibiotics into carcinogens. The gay community used a lot of antibiotics for various reasons, and when they were combined with the poppers, it was deadly. So when it was all said and done, there just wasn't any question in our minds. It was a unanimous decision.”

“If this is true, how should we have treated a case of this Classic AIDS?”

“Well, first and foremost, we should have announced what was *really* causing the disease, but only after appropriate peer review. Instead of a premature press conference blaming the virus called HIV, we should have told the world about the severe

dangers of the nitrites. Secondly, although it is true that criminalizing a drug doesn't guarantee that it will go away, I certainly think the FDA should have stepped in and banned the sale of all nitrites, period. Heart patients no longer need amyl nitrite for treatment. In fact, there really is no legitimate use or medical necessity for any of the nitrites today. 99% of the sale of nitrites is for recreational use by the gay community. The FDA could have simply said they were outlawed, period, and that would have significantly cut down on their availability and abuse. Thirdly, the only treatment any of these cases of Classic AIDS should have gotten was anything specific that would help fight the particular opportunistic disease they had and then help rebuild their immune systems, if it wasn't already too late.”

“You would not have prescribed anti-cancer chemotherapy or drugs, for example?”

“No. They would be totally contra-indicated in these cases.”

“Would that have saved many lives?”

“It's hard to say exactly how many. We would have lost some patients, regardless. But to publicly expose the nitrites as the cause and severely curtail their use in the gay community could have resulted in a substantial drop in new cases of AIDS, effectively stopping the epidemic years earlier.”

Baker takes a few minutes to pause and let the jury consider what they've just heard. He walks from the lectern to his table, picks up something of no significance, and then walks back again to the lectern. It's not very far and doesn't take very long. He reads a few notes on his pad, one of which probably said, *give 'em ten more seconds*. When he's finished counting to ten in his mind, he continues with his questions.

“And what is the second kind of AIDS, Dr. Howard?”

“We call it Iatrogenic AIDS – AIDS caused by doctors and hospitals and drugs. And, interestingly, in this case, the media also has to take a lot of the blame, because they played a big role in limiting the dissemination of any opinions or information that contradicted the HIV hypothesis.”

“You said that there were...” consulting his notes, “‘thousands’ of men who died from the first kind of AIDS –

Classic AIDS, as you call it. How many died as a result of this second kind, of Iatrogenic AIDS?”

“*Hundreds* of thousands – many times the number who died from Classic AIDS.”

“Can you give us a percentage, for example?”

“I would say, conservatively, that more than half of all deaths from AIDS in the last twenty-five years were iatrogenic, although you could actually make a case to say it was closer to 100%, since we’ve had the wrong cause the whole time.”

“And how about just for the ten years from 1987 to 1997?”

“For those years it’s closer to 90% of all AIDS’ deaths that were iatrogenic, even ignoring the ‘wrong cause’ argument.”

“And what did you decide caused this overwhelming number of iatrogenic cases?”

“It started with Dr. Gallo’s totally incorrect and medically incompetent pronouncement that the virus called HIV causes AIDS. That put almost everyone on the wrong track to begin with. It then went to the FDA, who short-circuited their normal procedures, looked the other way, and approved the anti-cancer drug AZT as a treatment for AIDS. And if it had stopped there, we still would have been better off. We would have lost a few thousand more victims than necessary, but we would have given AZT to only those patients who had active symptoms – in other words, who were sick. But Burroughs Wellcome then convinced the medical profession to start giving AZT as a prophylactic to hundreds of thousands of HIV-positives who had no symptoms, supposedly to treat the inactive HIV and prevent the development of AIDS. AZT, however, destroyed the immune system of whoever took it long enough – on average, about two years – and they developed AIDS and died. In fact, since you’re so interested in statistics, Mr. Baker, over 95% of all AIDS deaths in the US occurred *after* AZT was approved by the FDA in 1987.”

“So you’re saying that from 1987 to 1997, the vast majority – 90% in your estimation...”

“...died from the incorrect assignment of HIV as the cause and the subsequent incorrect prescription of the drug AZT as the treatment. But I want to emphasize that the real crime is that we gave AZT to people who were not even sick, simply because they

were HIV-positive. Again, according to the CDC statistics, there were more than 500,000 AIDS cases through the year 1997. Over half of those were the result of giving AZT to non-symptomatic, HIV-positive patients.”

“You almost make it sound like it was intentional.”

“I doubt there are very many doctors who set out to intentionally kill their patients. At least, I hope not. But the term ‘iatrogenic’ doesn’t differentiate between intentional malpractice and an honest mistake.”

“So what if all of this were just an honest mistake on the part of Dr. Gallo, the FDA, and the drug company, Burroughs Wellcome?”

“Normally, when we make an honest mistake, we admit it and move on. That hasn’t happened in thirty years. In fact, as recently as the year 2000, in what was called the Durban Declaration, there was a large group still claiming that HIV caused AIDS, despite the fact that my commission could not find a shred of evidence to support that in all of those documents,” and he points to the stack of boxes next to the plaintiffs’ table.

“There must be a lot of new evidence, recent research, and studies in those boxes that allowed your commission to reach a different conclusion than the rest of the world after all these years.”

“No, Mr. Baker, 98% of the material in those boxes is not new at all, meaning in the last couple of years. The information was available ten years ago, even 15 years ago. Or in the case of experts such as Dr. Duesberg, some of this was being said twenty years ago, but nobody was listening.”

“But Dr. Howard, if Burroughs Wellcome knew all along that AZT destroyed the immune system – that AZT essentially caused AIDS – why would they continue to market it as a treatment for AIDS?”

“Objection.” Crawley didn’t even bother to get up.

Baker holds up his hand to stop Judge Watts before she could say anything. “I’ll rephrase, Your Honor.”

“Dr. Howard, in your research as a commission, did you find any reason why Burroughs Wellcome would want to continue selling AZT regardless of its effects on a human body?”

“Well, in 1992, at the peak of U.S. AZT sales, Burroughs Wellcome, later known as Glaxo Wellcome and then GlaxoSmithKline, sold almost 400 million dollars of AZT – that was in one year alone. AZT brought in, well, almost three *billion* dollars to Burroughs Wellcome in the U.S. through 1996. That's hard to walk away from, I guess. But as far as I'm concerned, when big business takes over the medical profession, we're in big trouble.”

“Are there other examples of ‘big business,’ as you put it, continuing to sell a profitable drug when they knew it was harmful?”

“Unfortunately, there are a few. Most recently it was the Bayer Corporation, who kept selling a drug called Baycol to lower cholesterol, long after they knew that patients on Baycol were falling ill or dying from a rare muscle condition.”

“Just out of curiosity, do you know whether Bayer may have had a business partner in the sale of Baycol?”

“Yes, they did. It was GlaxoSmithKline, formerly known as Burroughs Wellcome.”

Both Baker and Howard look at Mr. Gladstone, the attorney for GlaxoSmithKline, seated at the defense table, and all twelve jurors follow their lead and look as well, as if he were going to try to defend himself at this point.

“Dr. Howard, are the number of AIDS deaths from AZT still increasing today?”

“No. And that was the other proof to us that AZT was the main cause of Iatrogenic AIDS. As a result of a lot of pressure, Glaxo Wellcome had to lower the dose of AZT being given to HIV-positives by sixty percent in the mid-1990's. Coincidentally, deaths from AIDS decreased by almost sixty percent from 1995 to 1997; and then decreased another sixty percent from 1997 to 2001 as different drug companies received FDA approval for about a dozen other drugs that didn't contain AZT, which began taking larger and larger shares of the market from Glaxo Wellcome.”

Baker wants to give the jury more time to think about Iatrogenic AIDS, but he feels he's being a little too obvious

walking back and forth to the lectern. Instead, he just flips one page of his notes, takes a deep breath and begins again.

“Alright. Let’s move on to the third kind of AIDS.”

Howard doesn’t wait for a question. “Okay. The CDC has changed the definition of AIDS a number of times, for reasons I can only guess at. But every couple years or so, the CDC will add the names of diseases that qualify as AIDS as long as the patient is HIV-positive as well. They even added cervical cancer at one point. These days, when a woman has cervical cancer, if she is HIV-positive, she has AIDS. If she is HIV-negative, she has cervical cancer....”

“Hold it there, Dr. Howard, if you would. Let me see if I understand what you’re saying, and let me make my analogy ridiculously simple. If I showed up in your office with a cold, and I was HIV-negative, I would be diagnosed with a cold. But if I showed up in your office with a cold, and I was HIV-positive, I would be diagnosed with AIDS? Is that what you’re saying?”

“That’s what I’m saying, Mr. Baker. So when the CDC added cervical cancer to the definition, all of a sudden more women were getting AIDS, and AIDS was now threatening both genders, which made it look better in terms of the first epidemiological law of viral and microbial diseases. It even made it appear that AIDS was expanding beyond the homosexual community, not because of some new infection occurring, but simply by changing the diseases included in the definition. So this third type of AIDS is caused ‘By Definition,’ and frankly, it is very deceiving.”

“You said you could ‘only guess’ at the reasons for this. Please share that guess with the court.”

“Well, it may have to do with trying to prove that there is some association between HIV and AIDS, which I’ve said is very hard to do. It might also have something to do with the amount of money the CDC gets for AIDS research as long as AIDS is still a threat to society – about \$600 million dollars a year. After the use of AZT was limited in the U.S. in 1996, the number of AIDS cases and deaths dropped significantly – by more than half, as I said. That, of course, made it look like the AIDS epidemic might be ending and threatened the funding for further AIDS research.

In order not to lose \$600 million a year, or even part of it, the CDC had to make sure the AIDS statistics stayed up in an epidemic range, and the easiest way to do that, if the actual cases were going down, was to considerably enlarge the number of diseases that could be called AIDS, which they did in 1999.”

“Dr. Howard, if we go back and use the original definition of AIDS issued by the CDC in the early 1980’s, before Dr. Gallo led the world astray, and eliminated Iatrogenic AIDS – got rid of AZT, for example – what would we have left?”

“Today? If you went back and just counted deaths from Classic AIDS based on the original and correct definition?”

“Yes.”

“Probably hundreds of victims a year, rather than thousands – basically those in the gay community who still use poppers.”

“In this country....”

“That goes without saying. Everything I have said applies to the U.S. AIDS in Africa is an entirely different story – actually we consider it to be the fourth kind of AIDS. Well, maybe.”

“What do you mean, ‘maybe’?”

“I’m not an expert in African AIDS, but I do think it is interesting that when Glaxo Wellcome lost sixty percent of its AZT business in the American market, they started focusing on the African market. And the incidence of AIDS in Africa has skyrocketed anywhere in Africa that AZT has appeared – basically everywhere except South Africa, whose President, until recently, refused to let AZT into his country. So the vast majority of African AIDS probably also falls in the Iatrogenic category. Plus, African AIDS is based on an entirely different definition, so it would also fall in the AIDS By Definition category as well.”

“Dr. Howard, I actually have another witness I want to ask about African AIDS. But maybe you can tell us something about a group that had a large influence on your commission...”

“You mean the Group for the Scientific Reappraisal of the HIV-AIDS Hypothesis.”

“Yes. I mean, you would assume from the media coverage that, starting with Dr. Peter Duesberg, the people who have disagreed with the idea that HIV causes AIDS are a bunch of wacko extremists, a scientific fringe element who don’t know

what they're talking about. From your own experience, is that true?"

"Hardly. The Group for the Scientific Reappraisal of the HIV-AIDS Hypothesis is a loose-knit organization of more than 2,300 highly respected scientists, researchers, medical doctors, Ph.D.'s, and other professionals – including Nobel Prize winners in medicine and chemistry, and members of the U.S. National Academy of Sciences. They all have one thing in common: like my commission, they are convinced that the virus we have called HIV cannot be the cause of AIDS."

"So we're not talking about a bunch of quacks who oppose Dr. Gallo's hypothesis..."

"No, sir. We're talking about the finest scientific minds in the world. If anything, it would be Dr. Gallo and his cronies who continue to claim HIV as the cause of AIDS that are in the minority, even though they get all the press coverage."

"Thank you, Dr. Howard. I have no more questions."

The Judge looks at Crawley without saying anything, raising her eyebrows, wanting a response. Crawley's co-counsel are motioning for him to cross-examine. Crawley, looking like he's now convinced of the plaintiffs' case himself, doesn't move a muscle.

Chapter Forty-Six

“I’d like to now call President Tambo Mbizana of South Africa.”

The courtroom is silent and respectful as the witness walks with such dignity up the center aisle toward the witness stand. Once he is sworn in, Baker begins his questions.

“President Mbizana, when did you take over from Nelson Mandela as President of South Africa?”

“I was sworn in June of 1999.”

“Thank you for being willing to come testify today. I know you are a very busy man and I’ll get right to the point. AIDS seems to be one of the biggest issues you face in South Africa.”

“Yes, but not just South Africa, Mr. Baker. The World Health Organization says there are more than 25 million people in all of Africa with HIV. In fact, seventy percent of the world’s HIV-positive population lives on the African continent, assuming the statistics are true.”

“You seem to question those numbers, Mr. President.”

“First and foremost, it is my job to question things, Mr. Baker, on behalf of all of my people. And numbers always depend on what you are measuring. Remember that we are dealing with extrapolation from a small study group to a larger population. But more than that, I say: So what? If it is clear that HIV does not cause AIDS, so what if there are 25 million people in Africa with HIV? Why should I or anyone else care if a pregnant mother is HIV-positive, either in Africa or in the United States? Why should we do anything about a newborn baby who may inherit HIV from its mother if being HIV-positive has nothing to do with AIDS?”

“I think most people would consider that to be heresy, Mr. President.”

“You have to remember that the name itself, HIV, is a total arbitrary name, and that the only link between the name HIV and the disease of AIDS was established by a political decision and not a medical one. We may eventually find out that the virus we

call HIV has to do with something else entirely other than AIDS, like a person's digestive system or their lungs, or is genetic rather than contagious. And we have to remember that not all viruses cause disease, especially not retroviruses. For all we know, it might even be a good thing to be HIV-positive! That HIV appears in African men and women more frequently than the rest of the world may mean that it has to do with living conditions, like heat or diet. We just don't know. Until we find out what the virus we call HIV does in a human body, there is no cause for alarm about its numbers. What concerns me more are the number of people dying from AIDS in my country – whatever causes it – and that, too, I question.”

“Why?”

“Because of the definition of AIDS being used in Africa.”

“Which is?”

“The list of diseases that make up AIDS in Africa includes Kaposi's Sarcoma – which I thought even Dr. Gallo had agreed ten years ago was not caused by HIV – weight loss over 10% of body weight, chronic diarrhea for more than a month, fever for more than a month, persistent cough, generalized skin rashes, recurrent shingles, and chronic or persistent herpes. Mr. Baker, most of my people – not just a few – *most* of them have one or more of these symptoms, except KS, of course. South Africa is a poor country. Poverty creates diseases such as this, not just a virus. But on top of it all, it is not a requirement to be HIV-positive to be diagnosed with AIDS in Africa. In fact, no HIV test is required for a diagnosis of AIDS to be made.”

“That seems very different than the definition of AIDS used in the U.S.”

“It is *very* different. For example, in Africa, AIDS is equally distributed between men and women, and not limited in any way to a homosexual population. In fact, in sub-Saharan Africa, HIV-positive women outnumber HIV-positive men. There are 7 times more children with AIDS in Africa than in the U.S. And our numbers are going up while yours are going down.”

“So you're not convinced you're really dealing with the same disease we call AIDS, or, as Dr. Howard's commission would

say, it is 'AIDS By Definition' rather than Classic AIDS or Iatrogenic AIDS?"

"Let me give you a couple examples that make it difficult for me to discern the truth. A 1994 study in central Africa showed that 70% of the HIV-positive test results were false – which is maybe why no one wants to require an HIV test any more. And in Tanzania, one study gave HIV-positive women very inexpensive multi-vitamins, and that alone resulted in healthier babies and a noticeable increase in post-natal immunities. Apparently it didn't require treating some virus, Mr. Baker, to make my people better. Maybe we should be focusing more on treating poverty, malnutrition, parasitic infections and poor sanitation, which do not discriminate between sexes like AIDS does everywhere else."

"From what we read and hear, you've been getting a lot of pressure from very high levels of other governments to get in step with the rest of the world, Mr. President."

"This is true, yes. In May of 2000, your President Clinton invited me to the White House, for example."

"Because of your position on AIDS?"

"Mr. Clinton is a very caring man. He was concerned about my people and strongly believed that I should allow AZT into my country to combat our AIDS epidemic."

"But why not allow AZT into your country?"

"Because I was not convinced that AZT would help my people. I watched as other countries in Africa brought AZT in, and the number of deaths from AIDS went up, like an epidemic, while deaths from AIDS in South Africa stayed relatively the same, even using this very strange definition."

"But shouldn't you trust the medical experts?"

"Mr. Baker, I am President of my country. I must take care of my people. They trust me to make decisions for them based on the knowledge I have that they do not possess or have access to. In order to know that I am making good decisions for my people in any area, I must be very suspicious of everything – very skeptical, especially these days, when it becomes harder to find the truth. Will you, Mr. Baker, show me that the virus called HIV causes AIDS? Will you show me why AIDS in my country doesn't even need HIV to be present to qualify as AIDS? Will

you show me that AZT helps people who have AIDS, whether they have HIV or not – cures them, or even gives them more time or a better quality of life in the time they have left? Will you prove these things to me, Mr. Baker? If you can, you will be the very first that has been able to.”

“If they can't prove to you any of these things, President Mbizana – if they can't prove to you that AZT has some positive value for your people – why do you think they worked so hard to get you to agree to it?”

“Mr. Baker, even in my position, with what I see and know, I still believe in the goodness of the human being. I do not like to speak badly of anyone in particular. But I also know what a powerful thing greed can be and what it can make people do, especially in the world of business. So let me answer you this way. There are now somewhere between 4.5 and 6.5 million people, in my country alone, who supposedly have HIV, depending on whose statistics you want to believe. Let's compromise and say there are 5.5 million. GlaxoSmithKline says they should all get AZT, whether they are currently sick or not. They have even offered it to my people at about \$500 per patient per year, which is quite a bargain. Mr. Baker, you do the math.”

Baker picks up a calculator from his table and punches in some numbers. “That's almost 3 *billion* dollars a year for GlaxoSmithKline, just in South Africa...and more than 12 *billion* a year for the whole of Africa.”

“It reminds me of one of my favorite American movies. *Show me the money*, Mr. Baker. *Show me the money*.”

“Mr. President, what, if anything, happened after your visit to see President Clinton in 2000, when you still refused to allow AZT into your country?”

“The pressure increased, both from inside my country and outside. A study from the South African health department claimed that, all of a sudden, there were now over 6 million people in my country infected with HIV, making us number one in the world for the largest number of HIV-positives. That report, however, was soon contradicted by my state's statistical agency, where the number was almost two million people less. But finally, in 2003, my cabinet succumbed to the pressure and I gave

in and allowed anti-retroviral drugs to be given to the people, on the stipulation that they would be given multi-vitamin supplements as well.”

“And do we know the outcome of that decision?”

“No, we don’t, Mr. Baker. It is too soon to tell. I just pray that I have not led my people down the wrong path.”

“Thank you, President Mbizana. I have no further questions.”

Once again Judge Watts looks at Crawley, who, this time, simply closes his eyes. She then looks back at Baker and motions for him to call his next witness. Instead, Baker announces, “Your Honor, the plaintiffs rest.”

Judge Watts turns back to Crawley, whose eyes popped wide open with Baker’s pronouncement that he had finished presenting his case. She wonders if he has changed his mind from his opening statement. “Mr. Crawley, do you wish to present a case for the defense?”

Crawley just sits for a minute. He then looks down his table at the panel of defense lawyers and defendants, and turns and looks at the rest of the entourage seated behind him. They all are looking back, bewildered. Finally, Crawley rises out of his chair, consulting his watch on the way.

“Your Honor, considering the fact that it's almost lunchtime, I would ask for a lunch recess.”

Judge Watts looks at Baker. “Mr. Baker?”

“No objection, Your Honor.”

“Then I expect we'll see everyone back here at two p.m. sharp. This court is in recess.”

As the gavel sounds loudly and the media begins its usual rush toward the exit, Crawley announces to his entire team, “My office, fifteen minutes.”

Chapter Forty-Seven

Twenty minutes later, as Crawley enters his firm's large conference room on the 17th floor of the Collier Building, just six blocks from the Federal Courthouse, the rest of the team was already arguing amongst themselves. Crawley overhears some of it as he makes his way to the head of the table: "should have cross-examined," "crazy not to put on a defense," "what was he thinking?," "didn't know Gallo had such power over The Man."

Crawley stands behind his chair waiting for everyone to notice his presence and cease their individual conversations. When it is finally quiet, in a controlled but powerful voice, Crawley says, "All right. You've had enough time. I want some answers."

When Dr. Gallo stands and starts to speak first, Crawley interrupts before the first word is audible. "Not you, Dr. Gallo. I don't ever want to hear from you again. We've all listened to you for much too long, me in particular. You were able to bullshit me almost as long as you bullshitted the entire country, but now it's over. You may remain there in your seat and listen while the rest talk or you can leave the room and find other counsel to represent you. It's your choice."

Gallo looks angry, but he sits down dutifully. Crawley takes that as a sign that he's staying. "Now, how about the rest of you?"

Mr. Fogerty, representing the FDA, was the first to speak up. "I think they've made quite a strong case to be honest, and I think we're in deep trouble. The biggest problem is, obviously, we committed to not defending ourselves in the very beginning."

"I take full responsibility for that," Crawley admitted. "I was certain, from everything Dr. Gallo told me, that this was a frivolous lawsuit and we didn't need to say a word."

"I..." Gallo starts to speak.

"I thought I told you to sit down and shut up, Dr. Gallo!" Crawley is really pissed now. "Look, we didn't put you in this position. You did, by your actions twenty-some years ago. We're

trying to get you out of this the best way we can. You're not making it any easier for us, and your comments are no longer welcome. So please shut up! And I want to remind *all* of you that we discussed not putting on a defense as a group at length before this trial began, and we were in agreement about how to proceed."

"Based on the information we had," Fogerty is quick to add.

"Yes, and in hindsight that information seems to have been very wrong," Crawley agrees, while looking directly at Dr. Gallo.

Mr. Crenshaw from the Department of Health and Human Services raises his hand, and Crawley nods at him. "But I think it would be deadly to change our position now. The jury's going to remember that we said we weren't going to mount a defense. If we stand up and argue now, it makes us look weak, like we're scared, like..."

"...like we're a bunch of pansies running around with our heads up our arses." It was Mr. Gladstone, for GlaxoSmithKline, who breaks in with his courtly British accent.

Crawley nods. "The way I see it, anything we try to do now is not going to be received well by the jury. I think our best bet is to settle this case before we reconvene at two."

The lesser legal members of the team let out gasps. One even says, "Oh my god!" But the head lawyers, all of them, know that Crawley is speaking the truth, as heretical as it is.

"Well, let me put it to you this way," Crawley continues. "I have already turned in my letter of resignation to this firm. I'm finished as a lawyer. This case did me in. It was time for me to step down anyway, but I'm sick to death of this. You can either agree, as my partners in this case, to offer to settle with the plaintiffs, or I'll go to the judge and try my damndest to be removed from this case as your lead attorney and let you proceed on your own. But I figure the only way I can convince Judge Watts to let me off the hook is to tell her the truth – that after hearing all the evidence, I agree with the plaintiffs and can no longer put on a proper defense. That obviously will be disastrous for all of you, not just Dr. Gallo, and maybe for me personally as well. But so what if I'm disbarred? I never want to practice law again, and I'm no longer willing to continue this farce. It's that

simple. I'll go to bat to secure a settlement before two o'clock this afternoon, or I'm out of here. Is that clear?"

Everyone sits stunned for a moment. Then Crenshaw, since Health and Human Services had the least to lose, asks a loaded question. "It seems to me like Baker is pretty much in the driver's seat as it is. Why do you think he would even consider a settlement?"

It's obvious that Crawley had given this a lot of thought, because he doesn't hesitate to answer. "Two reasons. Number one, which is something apparently none of you have figured out yet, the main thing Baker is after, and Messick before him, is a platform to get the truth out about AIDS and HIV and AZT to the American public. No one had succeeded in doing that in the last thirty years, thanks to the media blackout. The only way to break through that was a court case like this, which the media would have to cover, and in the process, the truth would surface. They've had their day in court, and they're satisfied. The whole world finally knows the real story. I bet Baker, and whoever else is on that team, could walk away today feeling totally victorious, even if they didn't take home a penny. It's never been about the money, as I see it."

Fogerty is doubtful. "I wonder whether their clients would feel the same way, but what's the second reason?"

"They would consider a settlement for the same reasons we are – the uncertainty of a jury. Three trillion dollars is a whole lot of money – 1000 times more than the largest settlement in legal history. There's a fifty-fifty chance the jury wouldn't be able to deal with the enormity of that number and make it something substantially less."

"So you think that Baker would really settle for less than three trillion?"

"I'm certain he would. And as far as I'm concerned, it's the smartest thing we could do, considering the circumstances. We can't afford an outright verdict in this case, because I'm convinced it would go against us."

"Offer 'em a hundred million!"

Crawley had never really liked Gladstone, and now that he had listened to the evidence in this trial about the activities of

GlaxoSmithKline, aka Burroughs Wellcome and Glaxo Wellcome, he liked him even less. After all, Crawley really wasn't a bad person deep down, despite being a lawyer.

"Gladstone, you're out of your fucking mind! For a class of 300,000 victims? That's just, what, a little over \$300 per person for a human life! I wouldn't consider offering such an insult. And as far as I'm concerned, whatever settlement amount we come up with, I think GlaxoSmithKline should pay at least half, if not more." Crawley tries to catch his breath and settle down a little. "In fact, since I'm the one that's going to be presenting this offer, *I'm* going to tell *you* what I'm willing to take to Mr. Baker."

Crawley picks up a legal pad and makes a few scribbles on it. "Of course, we would require that the amount of the settlement never be disclosed, but in these days of media leaks, I'm sure it'll be on GNN before the Judge even hears it. So I'm willing to represent an amount that is going to reasonably compensate the victims, and yet try to save us a little face." He scribbles some more and then puts down his pad. "900 billion – three million per victim – less than one-third of what they've asked for."

Crawley's proposal is greeted with various degrees of disbelief and consternation, like "You've got to be kidding." Even Gallo gets in his two cents with: "Bullshit."

Gladstone waits until most of the group calmed down and coolly says, "On behalf of GlaxoSmithKline, I say: no way. As a matter of fact, I will be filing a petition with the court before we reconvene to separate us from the rest of you in this case, and we will mount our own defense."

"It's a little late for that, don't you think?" Crawley asks.

"We're going to let the judge decide that. And if I were you, I would certainly hope she rules in our favor, or I'll also have a malpractice suit on your desk by this afternoon. I've never seen a case so badly handled..." and he packs up his briefcase in preparation to leave.

"All right, Gladstone. If I can negotiate a settlement before two, I will let you present your motion first, before informing the Judge of the settlement. But hear this. Dr. Gallo and the FDA and the Department of Health and Human Services are only going to take responsibility for one-third of the award. If you succeed in

separating Burroughs Wellcome from the rest of us, I'll make sure you're saddled with the other two-thirds, or two trillion dollars if you lose, and I not only think you *will* lose, but I'm secretly hoping that you do."

After Gladstone has left with his two backup lawyers in tow, Crawley returns to the business at hand. "That leaves my client, Dr. Gallo, and the FDA and the Department of Health and Human Services. Either Dr. Gallo leaves now and gets another attorney, or I speak for him when I say we're going to settle. Dr. Gallo?"

Gallo remains seated, resigned to his fate.

"Alright, Dr. Gallo. Good decision. Maybe the best one you've made in twenty-five years. I certainly hope you invested that 1.7 million dollars in royalty money wisely and have a fairly good-sized nest egg hidden in Switzerland or the Bahamas, because they're going to take everything from you they can find. And they will garnish every penny you make on royalties from your new Institute of Human Virology and Omega Biotherapies as well."

Crawley is about to continue when he remembers, "Oh, and Dr. Gallo, if I were Baker, I'd want your assistance in securing the resignations of any your cronies – any of the 'Bob Club' – still left in positions of scientific authority, like Dr. Fauci at the National Institute of Allergic and Infectious Diseases, and Dr. Bolognesi at Duke University, if they haven't resigned or retired by the time this trial is over. And there may be others, so be prepared to make some phone calls."

Crawley looks at Crenshaw and Fogerty. "As far as the FDA and the Department of Health and Human Services is concerned, it will obviously be the government – that is, the taxpayers – that cough up most of the money for the victims anyway. So? In or out? Fogerty and the FDA?"

"I think the FDA screwed up pretty badly in this case. We're in."

"Good. Crenshaw and HHS?"

"I see no other choice. Yes. Settle."

"Gentlemen, let's hope this works, or at two p.m. we'll all be making even *bigger* fools of ourselves."

Crawley picks up a phone on the conference table. “Find Mr. Baker for me in the next five minutes, whatever you have to do.”

Chapter Forty-Eight

“Tall double latte with soy milk!”

Sarah moves to the Starbucks counter to pick up her order in response to the page. She prepares her cup to go and walks out the door. Looking at her watch, she realizes she still has a little time left before court reconvenes at two, and since she’s only a few minutes’ walk away, she decides to stay and sit at one of the outside tables and relax a little before heading back to the courthouse.

It had been a long and emotional trial, and she secretly wishes it was over. But on the other hand, she is curious about what Crawley will say this afternoon and whether he would go against his opening statement and actually mount a defense. If he doesn’t, she can’t imagine the jury coming back with any other decision than finding the defendants responsible for the tragic and wrongful deaths of 300,000 young American men and women from AIDS.

Out of the corner of her eye she sees two people she thinks she recognizes meeting in front of the café across the street. *It is...it’s them!* She watches as Baker and Crawley shake hands, exchange a few words that she can’t hear above the noise of the traffic, and then show each other into the café where they take a seat in the front window.

Sarah gets up from her table and crosses the street, moving as close to the café as she dares without being seen. She finds a street lamp to partially hide behind, where she can still see both men from the chest up.

Crawley seems to be doing all the talking while Baker listens intently. Sarah takes out her cell phone and dials a familiar number.

“Sam?” she whispers into the phone. “I can’t talk any louder, Sam, just listen carefully.... What’s the latest deadline for the evening edition?... No, not the morning edition tomorrow; tonight’s edition....” Sarah looks at her watch when Sam answers. “It’s almost two now. Can you give me a few more

minutes?... Sam, you wanted a scoop. I might have a scoop.... How would you like to be the first to report a settlement in the AIDS trial?... Well, that's the only thing I can figure out. I'm watching Baker and Crawley sitting and talking in a café down the street from the courthouse right now. What else would they be doing?... No, there's no guarantee that they're talking settlement, and no guarantee that Baker will take it even if they are. But, Sam, it's worth the wait to be the first to break the story, if it is a story.... I don't know. Just wait for me. I'll let you know in ten minutes.”

Sarah hangs up and continues to watch as Crawley finishes talking. Both men sit quietly for a while. Then Baker says something, asks a question or offers some kind of rebuttal, Sarah can't tell which, and Crawley answers. Baker then stares at Crawley, who nods his head. Neither man speaks or moves for the longest time. Then Baker reaches across the table and shakes Crawley's hand.

Sarah dials her cell phone again. “Sam? Clear the front page!”

*“It is bad enough that people are dying of AIDS,
but no one should die of ignorance.”*

~ Elizabeth Taylor

*“All that is necessary for the triumph of evil is
for good men to do nothing.”*

~ Edmund Burke

Chapter Forty-Nine

Author's Epilogue

This book is a work of fiction based on fact: the *true* story behind the death of hundreds of thousands of young Americans from AIDS.

The official cause of AIDS, of course, is the retrovirus that has become known as “HIV.” For thirty years, this myth has been shouted from the rooftops and dutifully supported by almost every media in the world. You’ve heard their side of the story ad nauseam, so I make no apologies for not coming to their defense in this trial.

The character names in this novel are fictitious, with some exceptions. Dr. Robert Gallo and Dr. Peter Duesberg are very real and alive today. There are other names mentioned in passing that are also real. However, any character (other than Dr. Duesberg) that utters even a single word is fictitious, and any similarity or resemblance to actual events or persons, living or dead, is entirely and purely coincidental, for legal reasons.

So much for the characters. What’s important is what they *say*; and every word that is said in testimony from all the witnesses in this fictitious trial, or in interviews on “GNN,” is indisputably true and factual and based on over 900 published scientific and medical papers, along with documented news stories, books, and other publications. The actual references can be found at www.theAIDSTrial.com, for anyone who wishes to challenge the validity of any of these statements.

For example, Dr. Kary Mullis won the Nobel Prize in chemistry in 1993 for his invention of the polymerase chain reaction (PCR). Dr. Mullis has consistently said he can *not* find one scientific paper that proves that HIV is the cause of AIDS, or even the *probable* cause of AIDS. You can watch him on video [here](#).

Although this information is rarely found in the mass media or in presentations by the AIDS establishment, it is supported by more than [2700 medical and scientific researchers](#), legal experts,

doctors, chiropractors, PhD's, journalists, health care providers, and other professionals – including two Nobel Prize winners in medicine and chemistry and members of the U.S. National Academy of Sciences.

You can get more information by visiting ReThinkingAIDS.com.

* * *

This court case could never happen, for many reasons. The biggest one is that the statute of limitations for wrongful death has run (is over) for those who died from taking AZT between 1987 and 1997.

Those who are dying today from AIDS are, of course, not dying from HIV. Nor are they dying from full-strength AZT, which was discontinued in the mid-1990's. The question remains whether the remaining 600mg/day dosage of AZT in the standard prescription of Combivir® or Trizivir® is enough to destroy a person's immune system so that they still die from an iatrogenic opportunistic disease, but I am not aware of any specific research on that. It may be that GlaxoSmithKline was forced to lower the dosage of AZT enough to virtually eliminate its normally lethal results.

However, even the AIDS “experts” admit that more people are still dying today from the **side effects** of the new HAART (Highly Active AntiRetroviral Treatment), especially from liver failure, than from illnesses associated with AIDS, and that the drugs being given today are **even worse** than the ones offered ten years ago.

I do know that the use of poppers continues to this day in the homosexual community, causing the continuation of Classic AIDS.

In addition, the Centers for Disease Control and Prevention continues to widen the definition of AIDS to include diseases that are not opportunistic or linked to immune deficiency. The complete list of AIDS diseases in the U.S. is now:

~ Pneumocystis Carinii Pneumonia (PCP)

- ~ Kaposi's Sarcoma (KS)
- ~ HIV wasting syndrome
- ~ Non-Hodgkin's lymphoma
- ~ Cryptococcosis, extrapulmonary
- ~ HIV encephalopathy (AIDS Dementia)
- ~ Mycobacterium Avium Intracellulare (MAC or MAI)
- ~ Candidiasis of the esophagus, trachea, bronchi, or lungs
- ~ Cryptosporidiosis, chronic intestinal
- ~ Cytomegalovirus disease (CMV)
- ~ Tuberculosis (outside of the lungs)
- ~ Herpes simplex virus infection
- ~ Progressive Multifocal Leukoencephalopathy (PML)
- ~ Primary lymphoma of the brain
- ~ Toxoplasmosis of the brain
- ~ Histoplasmosis
- ~ Isoporiasis, chronic intestinal
- ~ Coccidioidomycosis
- ~ Salmonella septicemia
- ~ Bacterial infections, recurrent, <13 years
- ~ Lymphoid interstitial pneumonia/pulmonary lymphoid hyperplasia, <13 years.
- ~ Pulmonary tuberculosis
- ~ Recurrent bacterial pneumonia (two or more episodes in one year)
- ~ Invasive cervical cancer

In other words, if you are one of the 1,300,000 Americans who are HIV-positive, and you have cold sores around your mouth, for instance, you will be diagnosed with AIDS and told you're staring death in the face. But if you're HIV-negative and have cold sores around your mouth, your diagnosis is Herpes Simplex and your prognosis is excellent.

* * *

If the family of someone who recently died, who was diagnosed as HIV-positive and had been taking AZT in Combivir® or Trizivir®, wanted to sue GlaxoSmithKline for

wrongful death, they better do it quickly, because the statute of limitations will soon be over for them as well, and AZT will be out of the U.S. completely, replaced by a once-a-day pill with no AZT.

But GlaxoSmithKline has at least escaped any legal liability from the 300,000 deaths from AZT between 1987 and 1997. In short, it has gotten away with genocide in the U.S. Now, of course, they are sending their AZT to Africa, where we have another AIDS epidemic as a result – this time including children.

Incredulously, the World Health Organization protocol for African HIV-positive newborns starts at birth with the adult equivalent of 600 mg/day of AZT and continues for the first four weeks, escalating from age 4 weeks to 13 years to the equivalent of 1,600 mg/day for an adult — a dose that has long been shown to be universally, and quickly, lethal. One does not have to look further for the cause of the immense, immediate mortality cited for African babies and youngsters judged to be HIV-positive.

There was a commercial running on TV talking about the number of children world-wide who have died from AIDS, comparing them to the total number of grade school children in a few large U.S. cities. It is intended to make us believe that AIDS is killing children in massive numbers. Well, that's true; it is. But what the commercial doesn't say is that the overwhelming majority of the children dying from AIDS on a daily basis live in Africa, where the definition of AIDS is completely different than in the U.S., and where many of them are dying from malnutrition and poverty incorrectly diagnosed as "AIDS," or from the same drug that killed 300,000 young Americans not that long ago: AZT.

* * *

My thanks go first to Dr. Peter Duesberg, who wrote the definitive work on this subject, *Inventing the AIDS Virus*. I am also deeply indebted to my family – Catheryn and David, Bryan, and Christopher and Lena – and to Dr. Heide Taylor, Dr. Carl and Helen Hartmann, Dr. Janine and H.P. Dubke, Christine Maggiore, Carol Diamond, and Carmelita Rodriguez.

And a special thanks to Dennis Taylor of [Little Wing Art](#) for not only his support and encouragement, but also the artwork for the cover of this book.

Finally, on the thirtieth anniversary of the discovery of Acquired Immune Deficiency Syndrome, I dedicate this book to the memory of the more than 300,000 men and women who died of AIDS from 1987 to 1997, not from some awful virus that infected mostly homosexual men, but from the drug they were given to ‘cure’ or ‘treat’ them, and to their friends and family who were equal victims in this tragedy. I realize that the information in this book may cause pain and anguish for many of those who lost a loved one, and I truly am sorry for that.

* * *

You are invited to write a book review, or download the [free](#) audio book version of this ebook by visiting:

TheAIDSTrial.com

If you would like to buy a printed copy of this book,

Please go to:

VirtualBookWorm.com

The second book in this series called

Are You Positive?

is also available as a [free](#) ebook at:

AreYouPositive.org

About The Cover

The bronze sculpture on the front cover of this book is the creation of Dennis Taylor of [Little Wing Art](#). Dennis talked about his motivation....

"I was inspired and excited to design the cover just to be part of trying to right this wrong, a terrible injustice to the people affected by this story and the families that are still struggling to find answers to how something like this could happen. The people in Africa that are, at this moment, being murdered by a drug company for profit, and the governments that turn a blind eye to the truth, need to be exposed to public scrutiny and retribution.

"Blind Justice is the perfect symbol for how the truth has been concealed and manipulated so that the blood on the hands of the corporate and government powers was hidden until now. The tipping scales and the AZT capsules that overflow represent the power of greed that can change the balance of rationality and truth. The overall theme is that our Goddess of Justice is crying blood for the innocent lives lost."

To see more of Dennis' work, go to [Little Wing Art](#).

Cover photograph by [Christopher Marchetti Photography](#)

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