

CHAPTER 1

Bill Stuart left his aging Cadillac in the doctors' parking lot and rushed through the frigid night air across the ice-covered pavement. He hurried into the Chicago Metropolitan University Medical Center emergency room. Just that short exertion left him winded, and he wondered how much longer he could keep working. He swept past the admitting desk to reach room one.

His friend and long-time patient, Clarence Brown, lay in the bed with his chest propped upright on pillows. Sweat soaked through his gown, and he struggled to breathe. The distended veins on his neck and the blue discoloration of his face revealed that time was not on his side.

Bill had known Clarence for fifty years but had not seen him since the good people of Chicago elected the man to their city council the previous year. Like Bill, the best years of his life lay in the past, but he refused to surrender to his loss of stamina and the atrophy of his muscles.

Dr. Carlos Gonzales stood at the bedside across from Brenda Beaudreau, an attractive, young nurse who had worked on the night shift since she came to work there two years earlier. They both frowned at the wheezes emanating from Bill's chest. Carlos said, "Are you all right, Dr. Stuart?"

He wasn't, but dwelling on all his aches and pains would have been counterproductive, so he said he was fine.

Carlos raised an eyebrow in doubt but then moved on to the more pressing problem. "Good. I'm glad you made it so fast. Mr. Brown has gone down hill since I called."

Bill looked at the EKG monitor over the bed and realized what an understatement that was. Clarence's heart rate had climbed past 140.

Brenda turned the knob to increase the oxygen flowing into the mask over the man's face before adding with a Cajun accent. "His blood pressure's fallen to eighty over forty."

Bill bent forward and spoke to his friend. "When did this start?"

Clarence gasped his answer. "Yesterday..."

Realizing that Clarence was too short of breath to talk, Bill did a quick physical. Clarence had a rapid and weak pulse, his heartbeat was difficult to hear, and his abdomen was swollen with an enlarged, tender liver.

Brenda pointed to the chest X-ray that hung on the view box. "His heart's huge."

Bill saw that she was right. "Have you done an echocardiogram?"

Carlos shook his head. "Can't. The machine's down."

Brenda handed a complete EKG to Bill. The tracing confirmed Bill's fears. He placed a hand on Clarence's arm to get his attention. His friend's time on this earth was about to end if he did not do something quickly. "You have fluid around your heart. I've got to put a needle in your chest to relieve the pressure."

"Then do it."

Bill looked to Brenda. "Get the pericardiocentesis tray."

She hurried from the room. Carlos shook his head. "We should get a CT scan."

Bill hated that his fellow physicians were starting to question his judgment. At seventy-five-years of age, his body was failing, but his mind remained sharp. "We don't have time." He turned back to Clarence. "There are risks to this procedure. The needle could hit your heart. You could die."

Clarence lifted a hand. "Just—do it."

Carlos filled out the consent form. Clarence was too exhausted to spell his name so he made a mark.

The curtain that divided the room from the hallway flew open. Madra Minoza, the head nurse for the ER, stormed into the room. "What are you doing?"

Bill met her icy stare. "A pericardiocentesis."

"You aren't a surgeon or a cardiologist."

"It's four-thirty in the morning. They're all home in bed." *I may not be a specialist, but I know how to do it.*

"Then we'll call one in."

He wished that were an option, but Clarence could not wait. He led Madra out of the room away from Mr. Brown. "He'll be dead before they get here."

Madra folded her arms in front of her chest. “When was the last time you did one?”

“Ten years ago.”

Her nostrils flared. “I’m calling the administrator.”

Bill put on a mask and stepped back into the room. Brenda followed him and set the tray on the table. Bill walked to the sink and washed his hands. “Prep his chest.”

Brenda did as he said. Madra stomped down the hallway to the nursing desk. Bill put on sterile gloves and hoped he was not making a deadly mistake. Carlos and Madra were right. He had no business doing a procedure he hadn’t attempted in a decade, but no one else was available.

He injected xylocaine to numb the skin and then nicked it with a scalpel just to the left and below the sternum. He removed the long needle from the tray and attached an electric cable to it. Brenda connected the cable to the EKG monitor. Since Bill did not have the ultrasound to guide the needle, he resorted to the old fashioned way—the way he used to do it before they had ultrasounds—before specialists did all the procedures. He relied on the EKG to tell him if the needle struck the heart.

He attached a large syringe and thrust the needle through the opening he had made in the skin. He inched it forward under the sternum, knowing that if it went too far, it would tear the heart and Clarence would die. He had to advance the needle until it reached the fluid that was compressing the heart, but stop before reaching the heart itself. He pushed it deep under the sternum without encountering any fluid. He wondered if his diagnosis was wrong. *I should have gotten the CT scan. If there’s no fluid and I continue, the needle will plunge directly into the heart.*

He pushed further. Still no fluid. His hands trembled. He wanted to abort. He wished someone else had been on call. He nudged the needle again. Thick yellow fluid filled the syringe. He stopped and stared at the EKG. The tracing remained unchanged. He detached the syringe, and using a thin wire as a guide, removed the needle and replaced it with a soft catheter that he sutured to the

skin. He allowed fluid to flow into three test tubes and then connected the catheter to a drainage bag.

Clarence's heart slowed and his breathing became easy. Brenda checked the blood pressure. It had returned to normal.

Bill took a deep breath and released it. His patient was going to survive. "Thanks for sticking with me," he said to Brenda. "I hope I didn't get you in trouble with Madra."

She shrugged. "I'm always in trouble with Madra. She insists that everything be by the book, but sometimes the book doesn't make sense."

"Amen. I think you and I are the only people here who realize that."

After finishing the paper work, Bill left his patient in the ICU, made his morning rounds with the residents, and proceeded to the laboratory where he liked to spend the bulk of his time. Although he had practiced internal medicine at the university for thirty years, his passion was research on the aging process. This had become an obsession as the years passed and the hands of his clock approached midnight. Recently with his elderly friend Josh Rosenberg, a chemist, he had managed to isolate an enzyme known to prevent aging in cancer cells. They accomplished this at Josh's private laboratory, but Bill convinced the dean of the medical school to allow them to test the drug in the primate facility at the university.

The air had a familiar smell of bleach. Beakers, manuals, and glass bottles filled with chemicals cluttered the counters. The shipment of monkeys was scheduled to arrive later in the week. Bill inspected the empty cages and the stocks of food and equipment. Everything appeared in order.

His beeper interrupted the silence. The dean wanted to speak with him.

Bill pushed open the door and entered the inner sanctuary of Richard Mitchell, MD, PhD. The scent of cologne hung in the air. Richard sat in a leather swivel chair behind a huge walnut desk. He looked up over expensive Gucci glasses. The beginnings of a smile faded. "Close the door, Dr. Stuart."

His formal tone did not bode well for Bill. He sensed that he was about to witness a major episode of testosterone storm. Richard sat in the straight chair against the wall as he flipped through a stack of papers as if no one were in the room except him. Bill gazed at the myriad of frames that covered the wall with diplomas from Yale University and Harvard Medical School, certificates of achievement in medical research, and the one that he hated the most, the plaque declaring Richard to be dean of the medical school. That piece of paper gave him absolute power over Bill's career.

After perusing all the charts, notes, and drug company advertisements on his desk, Richard lifted his head and met Bill's gaze. "Madra told me what you did this morning. What were you thinking? You don't have privileges for that procedure."

Madra's action failed to surprise Bill, but he had never expected Richard to come down on her side. "Clarence Brown was moments from death. I saved his life."

"You could have killed him."

"It was a chance I had to take. He knew the risks."

"Dr. Gonzales had just given him morphine. The consent was worthless."

"I didn't know that, but it wouldn't have changed what I did."

"I believe you. That's what's so frightening. You go off like a loose cannon, and the hospital takes the liability. The man's a councilman, goddamn it. If you had gouged his heart with that needle, we would have made the front page of the tribune."

"He was going to die."

"You should have called in a cardiologist."

"You mean a mortician. That's who he would have needed by the time anyone else arrived."

Richard lit a cigarette and took a deep breath. Only after a heavy dose of nicotine had reached his brain, did he respond. "You broke hospital rules. I could kick you off the staff. It would look better if you resigned."

Bill ignored the tightness that gripped his chest. It would go away once his heart stopped racing. "You're serious?"

"I'm dead serious. I want you out of here this morning."

"What about my patients?"

"I've asked Madra to assign doctors to them."

"So this is a done deal?"

"Yes."

"And my research?"

Richard shook his head as if his shoulders bore the weight of Planet Earth. "You're done here. I'll finish your project myself. It's all a pipe dream anyway."

CHAPTER 2

Bill brushed the cobwebs off his medical school certificate and removed it from his office wall. He wanted to sit at his desk and brood, but Richard would be coming soon with the guard, and he did not want to give the man the satisfaction of seeing him cry.

Carrying his belongings in a cardboard box, he left the room that had been his work place for more than thirty years and locked the door for the last time. He looked down the long hallway and wondered if he had the energy to walk its full length. The strength drained from his legs, and the muscles in his arms objected to the weight of the box. He felt like sitting on the floor and never getting up.

Only the fear of further embarrassment kept him upright and walking. He directed his gaze downward and ignored the stares of colleagues and acquaintances, who stopped to watch his final humiliation. From the way no one would meet his gaze, he surmised that Richard had already announced to the world that his days on the faculty had ended. He wondered what other rumors his former boss had spread.

Exiting the back door, he walked to the doctors' parking area and used the remote to unlock the door to his car. Setting the box of certificates and memorabilia in the backseat, he wanted to drive away without returning to the building. His research notes, however, remained in the laboratory.

He walked through the doctor's lounge. An orthopedic surgeon and two residents sat at a table, drinking coffee. Residents come and go, and Bill didn't recognize either of them. He had known the surgeon for years but couldn't remember his name. The man glanced over his cup and nodded. "Hello, Bill. You're working late."

"I'm on my way home." Bill continued without stopping. He did not want to talk to anyone. How could he explain what Richard had done without breaking down and sounding like an old fool? He wanted to leave with some semblance of dignity, but fate had other plans.

The three doctors stopped talking and watched him leave the room. As the door swung shut, one of the residents said, "Who was that?"

Bill couldn't hear what the surgeon said—only the laughter.

Bill swiped his keycard at the entrance to the animal laboratory and did not hear the familiar click. He pushed on the door. It would not open. He realized that Richard had cancelled his access.

Fuming, he stood by the door until a technician opened it to leave. Bill swept past him into the room. He gathered his notes and stepped toward the exit. His gaze fell on the cabinet that housed the telomerase, the enzyme Josh and he had sacrificed years of their lives to synthesize. *Richard thinks it's some sort of snake oil. Why should I let him squander it?*

He looked around the large space. Everyone had left for breakfast. He used his pocketknife to break the lock. Three bottles of the drug sat on the shelf. He swept them into his coat pocket and shut the cabinet. It would not stay closed so he sealed it with a piece of cardboard.

A security guard stormed into the room. He glared at Bill. "What are you doing?"

Bill tried to project a calm facade. "Just gathering my notes."

"Dr. Mitchell doesn't want you in here."

"I'm leaving."

The guard confiscated the inactivated key and stayed with Bill as he walked past his ex-peers down the hallway and out the back door.

Bill drove out of the parking lot and headed toward home. His cell rang before he reached the city limits. He punched ANSWER to hear Richard's voice. "Where's the damn telomerase?"

It felt good to rebuke him. "That's none of your concern."

"You don't have the patent."

"Neither do you. Nobody does. We haven't applied for it yet, but we created it in our private lab. It belongs to Josh and me."

“I’m calling the police.”

Bill knew that Richard had no legal grounds for such a move, so he called his bluff and disconnected.

Nancy was waiting on the front porch. After fifty years of marriage, Bill was unable to conceal anything from her. All she had to do was to look at his face. “You met with Richard, didn’t you?”

He marveled at how well she knew him. “Did I ever tell you he’s a jerk?”

She smiled and kissed his cheek. “Only every time you mention his name. What happened?”

“I quit.”

She took a long time to answer. Bill couldn’t tell if she felt glad or if she was worried about what she would do with him underfoot all day, every day. “What about your research?”

He dragged his tired body to their old wooden swing and slumped onto it. “I don’t know. What am I going to tell Josh?”

She slid her thin hips onto the seat beside him. “The truth. You’re seventy-five years old. It’s way past time to retire.”

“He was counting on me.”

“He needs to accept the fact that our bodies are wearing out.” She draped her arm over his shoulders and pulled him close. “You do too.”

That night, when Nancy called Bill to dinner, he walked into the dimly lit dining room and reached for the light but stopped when he saw the candles sitting on the white tablecloth. Nancy entered the room from the kitchen, carrying his favorite beef stroganoff for dinner. He could not help but smile. She had gone all out to abort his inevitable depression, or maybe she just wanted to celebrate the end of his obsession.

She should have known better. He had expended two decades of his life searching for a cure for aging and was not about to let Richard confine him to a rocking chair. He was not wired that way. He would quit when he decided or

when his body gave up or dementia robbed him of the ability to think and to dream.

Sometimes he thought Nancy could read his mind. They had been together so long she could anticipate his thoughts before they even evolved. She kissed him on the cheek, and whispered, "It's going to be all right. Now we have time to travel. You've always wanted to go to Scotland."

She was right. There were scores of places he wanted to go that he had put on hold. Their importance had paled next to the contribution that he believed he was capable of making. How could he enjoy such indulgences if it meant surrendering everything to which he had dedicated his life? He sat in his chair and met her concerned gaze. "I'm not ready to give up."

She set the dish on the table, never looking away from his face. "Then don't. We'll find a way. Now eat up. You can't save the world on an empty stomach."