

CHAPTER TEN

Sample

I walk over to the bed and reach for Dad's hand. It's cool and limp. Like it doesn't really belong to him. I squeeze and want to believe that he squeezed back.

But his face his blank. Like he's not really there.

I reach out to touch his face, but my hand stops. Like there's some kind of force field around him. It's as if touching him will make it all real.

I take two fingers and stroke a patch of stubble just above the tape that holds the respirator tube in place.

My head shakes as if to deny what I am seeing. "What happened, Dad?"

In the background respirator sounds Darth Vader.

Stay focused. Keep moving forward.

I slide a hand inside my sterile coveralls, pull out the package that contains the specimen collection kit and lay it on the bed next to my father.

I peel back the cover of the kit. The video hammered on being super clean, so I find the sterile gloves and pull them on, trying to make sure I don't touch the outside of the gloves with my fingers.

"I'm trying to get a sputum sample, Dad." I don't know why I'm talking to him. "It's in your notes, right?" But it helps me stay calm.

I scan the maze of tubes and wires. Nothing looks quite like it did in the video. I trace each of the tubes back to the wall until I find a valve labelled, "SUCTION". I connect the specimen trap.

I find the port in the tube running into Dad's mouth. By snaking the thin, flexible catheter from the kit into that port and attaching it to the suction line, I will be able to get a sample. As I work the port open, I keep talking. "I read your notes. I'm trying to understand them. Food. Something about food, right?" The port pops open.

I'm thinking I'm like some babbling street person talking to himself when Dad's body tenses. His eyes pop open, and his hand jerks upwards, as if reaching for me.

Then, just as suddenly, his eyes close, his hand drops, and the whole zombie thing is over. But I am freaked and almost drop the catheter.

What had set that off? I stare at Dad for a clue. Had I done something to hurt his him?

But I don't have time to wonder.

Someone could walk into the room at any time. I can't rush, but I can't slow down. Light speed.

I begin to snake the thin flexible tube through the port and into Dad's windpipe. Within moments, I feel the tube hit a wall. The carina, the point where the windpipe splits to go to each lung.

I hold my breath. The videos warned that I am within a whisper of the heart. Stimulating it in the wrong way can throw off the electrical signals that control the heartbeat. That would be seriously not good.

I ease the catheter back a centimeter and glance at the heart monitor. All good. Then I reach to turn on the suction. A hissing sound fills the room. I begin to count. One, two, ... Not more than ten seconds. I watched the specimen trap. ... five, six, seven, ... Nothing. Nine, ten, eleven, ... I turn off the suction.

The rhythm of the machines returns.

I pull the catheter back slightly and try again. ... eight, nine, ten... Again, nothing.

"Come on, Dad. We need this."

One of the videos said I might need to loosen up the gunk in Dad's airways. I find the syringe of sterile saline in the kit, attach it to the suction line, and squirt it down the tube and into his lungs. I push the catheter back down and suck. This time, thick yellow goo sputters into the trap.

I breathe a sigh of relief and shut off the suction. I unscrew the trap, basically just a little plastic jar and put a top on it. "I got it dad. We're gonna beat this ..." But as I grab the catheter to remove it, my hand slips, jamming the tube into Dad's lungs.

All hell breaks loose.

The heart monitor over Dad's head howls, the steady pulse has been replaced by random noise.

I slide out the catheter as fast as I can. "Oh my God. Dad. I'm sorry. I'm sorry. What do I do? How do I stop it?" I stare at the screaming machines telling me I just fried Dad's heart.

Through the glass wall, at the other end of the corridor, I see someone running. I only hope it's someone who knows what to do.

I need to disappear.

I grab the pieces of the sampling kit and scan the room. No bathroom. No cover under the bed.

Someone is almost at the door.

There's a tiny closet. I open the door. It's way too small.

The alarm is screaming.

I crawl inside. My head bangs against a shelf. A hook digs into the back of my neck. As the door to the room began to swing open, I pull the door shut.

It won't close. With a finger wrapped around the coat hook, I hold it shut.

Through the crack I can see the wrapper from the specimen kit lying on the floor.

The alarm's shrill electronic howl fills the room.

Now it's my heart that's going crazy. I already feel like I have sucked all the oxygen from the tiny box. My neck is bent down and to the left. My arms and torso were twisted at odd angles. My legs and knees are bent farther than I would have thought they could go, like some cruel yoga position. I listen.

The alarms haven't let up. Have I just killed my father?

Footsteps across the room. Then, the beeps of someone pushing buttons. The alarm stops.

"What's going on, Dr. Boston?" A woman's voice. Calm. Soothing. She has done this a thousand times. Beep. Beep. More buttons. Suddenly, the whir of the IV pumps stops. Whoosh.

Whoosh. Only the robotic breathing of the ventilator remains.

Whoosh. Whoosh. Whoosh. Beep. Beep. Beep. Then nothing.

The silence hangs in the air like fog. Finally, the nurse's voice. "That looks better."

Then a click. Whoosh. Whoosh. The ventilator. Then the other pumps and monitors, one at a time. Whoosh. Whirr. Whirr. Whoosh. Footsteps.

I feel a wave of relief.

Then, through the crack, I can see her bend to pick up the wrapper from on the floor.

She stands, staring at the discarded packaging. I hold my breath. I wait. Then, finally, the crumpling of paper.

The clatter of a trashcan lid. "Someone should teach your doctor friends to clean up after themselves." More footsteps. The door opens and closes.

I wait to be sure she doesn't come back. I ease the door open and am beginning to unfold when I hear the sucking sound of the door to the room opening. I force myself back inside the box, hoping I wasn't seen.

Footsteps. Heavier this time. "I don't know what set you off, Charlie, but let's have a listen." It's a man's voice.

The clothes I had sent in with Dad hang in the closet. His smells surround me, a mix of sweat and fragrance.

I can see the doctor lean over Dad, hold a stethoscope to his chest, and close his eyes, repositioning the stethoscope several times. "Everything seems OK. Let's not start in on any cardiac problems, Charlie. We've got to get you up and out of here." The doctor stares at the monitors as he speaks.

A few moments later, the heavy door of the hospital room opens and closes.

I can't get caught. How long should I wait? I decide on three minutes for some reason and I start counting. 1,2,3,... My joints are already screaming for release. I try to focus on my breathing, that yoga thing Mom did. ... 45, 46, 47,... It's not working. I just want out. ... 70, 71, 72, ... No way do I last 3 minutes. 124, 125, 126, ... Two minutes is enough.

I tumble out into the empty room and unfold. Dad looks peaceful. "I'm trying to figure this out. I'm doing whatever I can. There is no way I'm gonna lose you." I feel a surge of emotion and struggle to keep my balance.

I realize my face is wet. Tears won't make it easy to sneak out of the ICU. Doctors aren't supposed to cry.

I discard the tubing in the biohazard bin and take the sample jar. I take one last look at Dad. "Just stay with me, Dad. I need some time."

I turn to leave. I have to move quickly. As I reach the door and am about to dart out of the room, I hear movement behind me.

Startled, I spin. Dad has raised his head. He's looking right at me.

His eyes are wide and desperate. Like he wants to say something. With the respirator in his windpipe, speech is impossible.

"What?," I whisper, "What do you need?"

Like a zombie, he raises an arm. I try to take his hand, but it swings away. Dad is reaching toward the table in front of him. Staring at something. There is only a remote control, a glass of water and pad on the table.

Maybe he can write. I scan the room for a pencil. Outside the room the charts have pens hanging from them. I turn and reach to open the door.

The sound of breaking glass jolts me.

I spin back. Dad has collapsed back onto the bed, his eyes closed. The glass that had been on the table is lying on the floor, shattered in a puddle of water.

My heart sinks. I glance at the monitors. Dad is still alive. What was he trying to tell me?

I'm alone.

Through the glass I see an empty corridor. I bolt out and race toward the exit.

In the decontamination area, I bath in blue light and a mist of disinfectant. Then I strip off my protective suit, mask, and gloves and drop everything except the specimen trap into the biohazard bin. When I step out of the Hot Zone, the first thing I see is a group of men and women clustered around one of the cubicles. They all wear white coats. Some long. Some short.

It's the ICU team. I have a problem.

The security guard from the entrance is at the desk, talking to the black-haired nurse.

The jig is up. I pull on my lab coat, slip the specimen trap into the pocket and spin around.

Neither of them has spotted me. I make for the exit, walking as fast as I dare. I am just at the outer door of the ICU when I hear her.

"That's him. That's him!"

I hit the door with my shoulder and run like I have never run before.

CHAPTER ELEVEN

On the Run

And that is how I find myself, moments later, standing on the third floor landing of Washington General Hospital with the police and hospital security closing in on me. Not sure where it will put me, I bolt through the stairway doors, nearly knocking over a startled nurse as I turn a corner and take off down the hall.

I search my mental map of the hospital for a new route to the basement. I know that the cafeteria is on the third floor with skywalks leading to the other buildings. That might give me a way to escape.

I dodge an old man waiting on a gurney outside the radiology lab and turn right onto the main hallway. I stop short.

Just outside the lunchroom, the hallway is packed.

I'll never be able to run through that crowd, all balancing full trays. Behind me, the security guards, are half-way down the hall.

I run back to the old man. As I grab the gurney and start to push, he shoots me a look horror.

"They're ready for you in the exam room." The man either believes me or is too shocked to speak as I swing the gurney out into the corridor and begin to jog toward the lunchroom crowd.

"Code White!" I scream as I accelerate towards the throng, "Clear the hall!"

The crowd parts like the Red Sea and I rumble through. The man grips the rails of the gurney, his face now a mask of stark terror.

As I pass, the crowd closes ranks behind me. "Code White," I yell again. People jump to the side and I pick up speed.

Then I hear another voice. "Security! Comin' through. Security!" Somehow, in the hospital, the cries of the security officers don't work as well as a patient with a deadly disease.

As I get to the open corridor, I can still hear the security officers, but they're dropping back. I push the gurney up against the wall. "Sorry, sir. My mistake."

I take off, snaking through the maze of corridors, running on instinct. Right, then left, then left again. There is no sign of security behind me.

My lungs are burning. My muscles are screaming. I can't keep up this pace much longer.

Then I realize that the hallway around me has changed. The clear fir woodwork has given way to dark mahogany. The linoleum had turn to stone.

This is a good sign. This is the old hospital. There is a stairway, just ahead.

I throw open the fire door, race down one flight and, to make sure to lose my followers, slip out onto the second floor.

Down the hall. Then to the left. Another stairwell. Three flights of stairs, half running, half tumbling. At the bottom of the stairwell, through the heavy fire doors, is the basement.

Empty.

I pause for an instant. Hands on my knees. Panting. My chest heaving.

Keep moving. I might just make it.

Ahead, I can see the supply room. I am one turn away from escape. I start running again toward the tunnel. Just as I reach the supply room, an unseen door opens and slams. The distant sound echoes down the empty hall. A pair of heavy footsteps,

running. Someone is coming towards me from the opposite end of the building.

From the direction of the tunnel.

My only way out.

I scan the long basement corridor, searching for a place to hide. The bare concrete of the floors is polished smooth. Heavy steel doors, layered with industrial brown paint, pierce the walls. Fluorescent tubes buzz and flicker in the ceiling.

I check a couple of doors, but they're all locked.

Then I remember Dr. Lu. His lab is just down the next hallway.

Footsteps grow closer. I dart into the hall. Next to one door I grab the door handle and twist.

It won't turn.

I jerk it harder. Locked. I try the doors nearby. Both locked. The only object in the hallway is a small trashcan in the corner.

It's too small, but I am out of options. I crouch behind it.

The footsteps are coming closer.

I hold my breath. I can only hope they don't look too closely.

Suddenly, a door on the hallway opens. A voice, calm, but accusing, calls out. "Who is back there?"

I'm done. I hold my hands out and slowly rise.

CHAPTER TWELVE

The NEIDL

Trace Martin steps into the airlock and closes the door behind her. The pump whines as it inflates the seal around the edges of the door to form a barrier between her and the virus growing in the Biosafety Level 4 laboratory where she has spent most of the day. Another team has just entered the lab to pick up where she left off. Teams of researchers will continue working in shifts, 24 hours a day, until they finish sequencing the RNA from the virus.

She is still not safe. There could be billions of viral particles on the bulky biohazard suit she has been wearing all day. Even the air that followed her into the airlock could be saturated with the deadly virus.

Dr. Martin steps into the chemical shower and turns it on. She can feel the warm spray through her isolation suit as seven separate jets shower her with disinfectants from all angles. Sheets of the pale green fluid run across her face shield. The spray needs ten minutes to eliminate the virus.

The seconds that tick slowly past give her time to gather her thoughts. The hours since that first patient appeared have been the most intense of her life.

This is the first real test of the Experimental Vaccine Acceleration Protocol (EVAP) that she helped to develop. Its combination of genetic sequencing, supercomputer models of the human immune system, and sophisticated laboratory analyses of the immune response of the first victims seemed brilliant in concept, but reality never works the way it is supposed to.

Dr. Martin senses there is something different about this virus. It's attacking cells in ways they hadn't imagined and defending itself in ways the models didn't anticipate.

And there's something else. She knew that this was a deadly virus. She has dealt with killer pathogens before. She understood they were to be treated with fear and respect. But something about this virus, something she still can't put her finger on, terrifies her.

The shower shuts off and she eases her way out of the heavy blue plastic suit. Unfettered access to air, even if it reeks of disinfectants, feels good. Damp with sweat, the surgical scrubs she wore inside the suit stick to her skin. Her hair is matted to her head. She hangs up the suit, opens the second airlock and steps into the level 3 lab, with its carefully controlled and filtered air, that surrounds the level 4 lab, serving as another

layer of protection against the release of disaster. In the locker room, she showers and dresses before rushing down to catch the shuttle boat to Seattle.

Dr. Martin flashes her badge at the guard station, walks briskly past the ten-foot, razor-wire topped fences and catches the boat just as it prepares to leave the dock. The Northwest Emerging Infectious Diseases Laboratory (the NEIDL) is one of only ten laboratories in the United States with bio-containment level 4 facilities, a safety level that allows them to handle the world's most dangerous viruses.

On an island in the middle of Puget Sound, the NEIDL is part ultra-high-tech laboratory, part prison, and part survivalist bomb shelter. The design of the building includes elaborate precautions to keep the deadly pathogens inside, but it is surrounded by an equally elaborate system to keep the bad guys out. The outer fence is equipped with motion detectors so sensitive that passing sparrows and burrowing moles have an annoying habit of setting them off. Anyone who figures out how to fool the outer fence and hide from the Military Police who man the guard towers will turn into a charred steak when the inner fence hits them with a thousand volts. The lab building was protected by two feet of reinforced concrete in case someone figures out how to get to it with explosives.

If an accident does occur and someone from the lab becomes infected, the island contains its own infectious disease ward. With massive generators, huge fuel tanks, banks of solar panels, dormitories, and fully stocked food warehouses, the island also has the capacity to operate in complete isolation from the mainland for at least six months.

Trace Martin walks to the bow as the small boat bounces across the waves and watches the approach of the Seattle skyline. She is surviving on adrenaline, espresso, and two hours sleep each night and has hardly seen Athena since it began. She wants nothing more than a chance to rest.