Above all, Major Nathan Ashcroft thought poison was the worst way to kill a man. Dishonorable. A weapon for those too weak to confront their threat. Only animals were put down; humans deserved better, even if they were selling military secrets.

Yet here he stood at the Tether Grey base outside of Athens, Tennessee with orders to kill. It was the first time Nathan had returned to his home state in over six years. He and two of his men swept through the security enclave under wide-eyed, awe-filled stares. His security clearance granted free drop-ins, much less an easy walkthrough with his badge proffered. Nathan directed two of his men towards the cargo bay area to load the classified shipment for which the unfortunate Dr. Sam Yata was to be killed.

One officer saw fit to escort Nathan to the main lab facility, excusing Nathan from swiping in, and verifying his location, at each thick-walled door. The sterile white corridor was washed in a gradient of light, bouncing off the tile floors but dimming to grey near the ceiling. It was a straight shot towards the lab, which only made it easier for Nathan to make his leave when the time came.

Once they emerged into the cavernous laboratory workspace, Nathan thanked the officer and waited for his departure. A flight of stairs separated Nathan from Dr. Sam Yata’s office. His thick soled boots clanked against the stainless steel steps, his rough palm cooled by the metal railing. Nathan knocked on the door of Dr. Sam Yata’s office, which overlooked the gleaming lab facility,
abuzz with the hisses and hums of various experiments. The amber glass registered a *clink-clink-clink* which, while not as satisfying as traditional wood, still alerted the lab director to his presence.

A grey haired man answered the door, opening it narrowly. His chin length locks showed the attempt of combing them down negated by the frazzle of work. He looked up into Nathan’s face from a half foot below, giving a wan smile. His teeth showed long, late, coffee-fueled hours dedicated to his work. The report had indicated he was a diligent worker, which Nathan admired but had also come to expect; those who failed to perform were replaceable. The report did not give any indication of nervous behavior.

“Dr. Sam Yata?” The man blinked in response. “I’m Major Ashcroft.”

“Of course, yes.” The lab director opened the door wide and gestured towards a grand desk with a chair across from it. Nathan found his office well-appointed with sleek glass furnishings kept in warm brown hues reminiscent of a bygone era. Nathan liked the doctor’s taste. Dr. Yata stood behind his desk and extended his hand for a stiff handshake. The doctor’s hand felt small in his own. Nathan caught Dr. Yata’s eyes travelling down to his hips, which found him unarmed.

“Is something wrong, Dr. Yata?”

The doctor looked up. “Oh no, nothing. Sorry.” He dragged his hand back through his hair; so this is why it appeared disheveled. “You can call me Sam.” Sam took a deep breath.

“Nathan,” the major nodded, lowering himself to his seat.

Behind the desk was a clear glass case, the only fixture in the room that escaped the earth-tone theme. It displayed an unsheathed katana with an embellished hilt woven in black and gold. His
report indicated Dr. Yata was only a naturalized citizen. Nathan sat gazing at the curved blade, wondering if he had brought the sword with him when he immigrated or if he had acquired it later.

“That’s a beautiful piece.” Nathan tried to distract him from his nerves. “Someone must have spent many hours at the fire hardening that one.” Sam turned back to examine the sword. “Are you a collector?”

“Well that’s a common misconception, Nathan. Fire softens—you strengthen with the hammer.” The director ran his hand through his hair again before busying himself with a tabletop brewing station. “But I’m not so much a collector as an aficionado. Despite my work, I am still a bit absorbed in the past. My wife does not want weapons in the home,” he gestured to the case while filling a mug, “which is why I keep it here. I believe she hopes my work is more on the defensive, than the offensive side.

“But I’ve been rude, Nathan. Would you care for a drink? Coffee? Tea? I’m afraid we don’t keep anything stronger in the facility.” It was the first time their eyes had met since he opened the door.

“Just a glass of water. No ice.” Sam turned his back to pour a glass from a cooler near the corner. This was a little more of the self-assured traitor Nathan had anticipated, but Sam was still wary. Nathan sighed, unsure whether Sam’s nervousness made the job easier or harder. He passed his hand across his decorations. Sam returned with a tall glass for Nathan and settled his own mug of coffee near a set of unlabeled jars that might have held jam. Odd, Nathan noted, given the food rations. Nathan gulped water and Sam took a sip of bitter black coffee.

“Are those jam jars?”
“Yes.” Nathan remained silent, but Sam seemed to pick up on his question. “We have a huckleberry bush and an elderberry tree near our home, my wife and I. We pick them and make the jams ourselves. There’s a secret ingredient that I add.”

At that the doctor smiled. Nathan stifled a laugh- if there were two men who knew secrets, they were in that office. “Shall we discuss business then?” Nathan offered. Nathan thought he caught Sam’s hand tremble. Sam took the mug from his lips and lowered the blinds via controls on the desk’s surface. The sting of harsh fluorescent lighting softened to the office lamplight. With the room sealed against intruding eyes, Sam began.

“I’ve cleared my schedule for the rest of the afternoon,” a short pause, “as requested. The engineers know not to disturb us, so we can take as long as we need.”

Nathan did not need too long, just a moment to slip in the poison, untraceable and slow-acting such that Sam would die some place other than work. Nathan wondered if scientists were often killed this way, or if some other doctor had died by the same chemical they had developed. No. Dr. Yata’s file was clear- he had begun speaking with Japanese high officials. Betrayal of country would not be tolerated from a man in his position. To Sam, Nathan just nodded.

“A bit of background, I believe will help here Nathan. My specialty is in rheology, or fluid flow. Fluid dynamics as a field exploded 20 years ago when mathematicians advanced solutions to the Navier-Stokes equation. We’re now able to more precisely manipulate fluid flow with this knowledge. I wonder, Nathan, if you ever played with cornstarch and water when you were young.”

Nathan raised an eyebrow, unsure of this odd turn in arms dealing conversation. He had grown up in the Smoky Mountains not ten miles east of where he sat, but childhood was a fog
beyond the resource famine, before the distant overpopulation threat collided with the present. “It’s a liquid until you hit it?” Nathan ventured based on distant memories.

“Exactly. Shear forces on the liquid cause it to thicken, sometimes to the point that it’s apparently solid.” Nathan nodded to show that he followed the explanation. Hard science was not his expertise; he would take the doctor’s word on the chemistry. “These are rheopectic materials, and are quite rare. The reverse of this, shear-thinning, is a more common material property, and one that I managed to take advantage of.”

Sam lifted the box of jam jars on his desk and placed a flat palm on the glass underneath. A light display projected on the plane between them. Sam typed on his desk and the green lights flickered into new positions, showing a series of stacked graphs. He stood and repositioned himself on the desk’s edge, to Nathan’s right.

“One familiar instance of a thixotropic material—”

Nathan cocked his head in confusion. “Ah, a shear-thinning material,” and Nathan nodded, “is quicksand, so often portrayed in the movies- keep still and you’re fine, struggle and you’ll sink helplessly as the sand gets thinner and thinner. Other examples are fluids like paint, and blood.”

Blood? Nathan rubbed the prickly brown hairs at the base of his buzz cut. He was not sure where this was going but it seemed more related to combat. Sam drew a pale thumb along his stubby jawline, his lips parted. Puffed bags beneath his eyes were a biological record of sleepless nights. His mouth shut. Sam leaned closer to Nathan, resting his elbow on his knee.

“What I’ve developed is a sort of sonar device to be deployed on the field. My vision for the weapon would be a select group would carry them, like the heavies in a platoon. Not every soldier—that won’t be necessary.”
Nathan clasped his water glass. Field tactics. This was where Nathan had excelled and why he had advanced through the ranks. That, coupled with his passion for history; he knew the ins and outs of the Chinese uprising, masses of people with no food, no money, and no trust that the government would protect it even if they had it. Political pressure rose for a protected innovation sphere, and the United States had to respond with a surge of technological advancement. Sam pushed his hand through the lights gesturing to the graphs. A mechanical whir above their heads indicated the start of the air conditioning. Cool water coated Nathan’s throat as he drained his glass.

“These show the effects of the device on subject blood pressure at a variety of distances,” Sam dragged his hand horizontally, “and for indirect and direct hits,” his hand motioned vertically. The graphs showed a generally curving decrease in a scatter of points. “As you can see, the blood pressure is significantly lowered. These lower graphs show similarities in effect based on sex and age. The correlation between low blood pressure and blood flow rate.”

Nathan straightened in his chair, pulling down on his officer’s jacket, but when the vial in his pocket dug into his upper thigh, he adjusted his position again. He tapped a booted foot against the tile floor in dull thuds. His eyes flashed around the screen connecting more than just the dots before him.

“Only a few soldiers would be equipped with these devices? It’s not intended as a standard weapon?”

“No, sir.”

Nathan paused. His foot stopped tapping. Lower blood pressure during combat.
“So the vision is that one soldier carries this device, heavily armored, up front and fires it at enemy troops. Their blood pressure plummets since their blood is thin. They become disoriented. They’re weakened, and even with a minor wound,” Nathan paused, “they’ll bleed out.”

“That is the idea, yes.”

“Not something I’d want outside our own hands,” but that very prospect would line Sam’s pockets. The same device that could give the U.S. a military edge over China could be toppled if Japan went to their aid. All in exchange for food. Nathan leaned back in his chair and looked from the graphs to Sam’s face with a touch of sadness. His intelligence was remarkable, and dedication clear, but somewhere along the line it went sour. A waste of a smart man.

Nathan breathed. “There’s a reason you were requested for the project. This is promising, I’d say brilliant.”

“Thank you, Nathan.”

“How heavy is the device?”

“About 8 pounds. Above my personal target, but sufficiently light if we anticipate shorter battles.”

“Indeed.” Nathan waved at the graphs before him. “These subjects of yours.”

“Were unaware of the device, and unaware of the full meaning of their physicals, although I suspect most people know when their blood pressure is being measured. But it is a routine enough test.”

“You made all of the devices yourself? Start to finish?”
“Yes, all 12. They should be down at the loading bay.”

Nathan truly was impressed by this man, as if he needed another reason to hate this assignment. The job would be difficult after all. He shuffled in his seat and grabbed his water glass. Sam motioned to return to his seat, but Nathan interrupted, asking for a second glass of water. Sam obliged.

In the time his back was turned, Nathan tipped a vial of concentrated coagulant in the remains of Sam’s coffee. It was a bitter irony given the device he had developed, but Sam Yata would die of a serious blood clot some time that evening, brought on by the stresses of the director position. Inevitable, unavoidable in his line of work. Nathan would verify the death later. By the time Sam faced him again, Nathan was typing on a small tablet, transferring the money from the deal in separate amounts to the lab and to Dr. Yata’s account. He hoped his wife would use it well.

“I’ve just transferred the funds to both the lab and your personal account. You’ll find the amounts as agreed upon.”

“Excellent. Thank you, Nathan.”

Nathan simply nodded in response. Sam had taken a knife, plate and box of biscuits out from a desk drawer. He unscrewed the lid of the huckleberry jam and dipped in the butter knife. Sam stared at the round biscuits, circling them once, twice, with purple jelly, once, twice, only breaking his stare to look at the mug of coffee. Then he took out new biscuits, circling them with blackberry jam a shade darker than the last.

Nathan grasped his glass, raising it to his lips. He was unsure whether it was condensation or sweat building up in his palm. He tipped a small sip of water into his mouth, waiting for Sam to
return to his coffee. He did. Then Sam munched on biscuits of alternating jams. Nathan found it difficult to swallow his water. He coughed bitterly. Rheopectic, thicker under stress.

Nathan stood to leave. No matter what the man had sold, Nathan thought he deserved a better parting note than poison. “On behalf of the U.S. Army, your service to country has been commendable.” Nathan swallowed. Had been.

“Need my service end today?”

Nathan stopped, staring down at Dr. Yata. Sam had paused with a bitten biscuit in midair. He crunched through whatever he had bitten off.

“No. You can keep working.” Nathan tried to react naturally, but Sam knew. How had he known?

“May I take your word on that, Nathan?” He shoved the last biscuit into his mouth chewing through it with vigor. The lump of food rolled in his cheek.

Nathan could not give his word to a dying man. He stared at Sam until he had finished chewing, making sure he did not reach for a weapon. Nathan glanced up at the katana in the glass case.

“I’m not a samurai, Nathan, I’m a scientist. I think I’ve contributed to enough violence without partaking in it directly.” Sam stood and Nathan stepped back. “Why were you sent to kill me? I haven’t done anything wrong.”

Nathan could see that. If Sam had kept showing up to work, even if he expected to be killed…

“How did you know?”
Sam laughed. “Funny thing, they expect a research director at a weaponry facility to work on classified level projects and not raise an eyebrow when he’s asked to do it alone?” Sam laughed again.

“What did you stay?”

“What do you enjoy killing people, Nathan?” Nathan started, but Sam cut him off, “or do you do it because somebody has to?”

“No one enjoys killing people, but I swore an oath to my country.”

“As did I when I became a citizen thirty years ago. I have no intention of selling this weapon to Japan. Japan doesn’t need any help in weapons development. I’m sure you know that.” Nathan did- the two countries had been neck and neck in innovation for a few decades.

“Nathan, I’d just like to live to work another day.”

“I’m sorry. I can’t help—”

“It was an oral based coagulant?” There was a flash of nervousness in Sam’s dark eyes. Nathan nodded.

Sam smiled tapping a jam jar, “Secret ingredient.”

At that, Nathan smiled as well; he prepared the antidote. Sam was a brilliant guy. Nathan couldn’t kill him now without an obvious murder at the facility, and he was convinced Sam would not have sold the technology anyway. There was something wrong with their intelligence. Was it purposeful? Where had these communications come from that were stored in Dr. Yata’s file?

“I’m not sure you’ll be able to work again, but maybe you’ll live.”
“Thank you, Nathan.”

“Don’t thank me. As far as the country knows, you’re a dead man, Sam.” Nathan walked away from the desk rubbing his close cropped hair with a half-smile. “Best of luck to you.”

Just as Nathan had arrived, he was gone again without record.