Pandora’s Poison

Patrick McKeon

From the report which the hospital had sent Doctor Frank Skorzeny, he knew that the patient evacuated from the Grand Canyon had been admitted with swollen lymph nodes forming the incipient buboes in his groin which were typical of bubonic plague. But the bacteria had already escaped from the lymphatic system into his bloodstream. On his tablet, Frank paged through the last update he had received before boarding the plane in Atlanta. The victim was suffering from multiple organ failure from septicemic plague. It was unlikely he would still be alive when Frank disembarked in Flagstaff. The son, James Carter, had presented asymptomatic, but as a precaution had been given the same course of antibiotics as his father. Both of them had been placed in isolation units.

Frank had seen plague cases before, and knew that this was most likely an isolated event which would in all likelihood end with just these patients, whether they lived or died. But as a CDC epidemiologist he was aware of the potential for a more serious outbreak. He always had in the back of his mind the tracks an epidemic could take. If the pathogen were particularly virulent it might kill too quickly to find new hosts to infect. Then it would fade away, perhaps leaving less deadly strains, which would result in low level infections that might kill more slowly or just become chronic diseases. After the epidemics run their course, they disappear from the areas which they had invaded and remain only in those pockets where they are endemic, infecting hosts which have evolved immunity until the opportunity comes to break out once again into the wider, more vulnerable population. In the age of antibiotics, such outbreaks were almost exclusively viral, such as sporadically occur with hemorrhagic viruses such as Ebola, Lassa and Marburg. The once deadly epidemics caused by bacteria, such as plague, could in modern times always be quelled with antibiotics.

As his plane approached Flagstaff, Frank looked out over the barren brown desert. This was one of those reservoirs where plague was endemic and which served as the source of almost all of the dozen or so cases occurring in the United States annually. Even when there were no infections occurring among the residents of the area, the bacteria was always lurking within those hosts which it did not actually sicken. Frank pushed his tablet to the side to allow the flight attendant to place a cup of water on his tray. He liked to stay hydrated on flights, aware that the cabin atmosphere contributed to drying the nasal passages. He had seen too many cases of respiratory disease outbreaks disseminated through airline passengers. That was one of the main paths by which new flu strains found their way around the planet.

When Frank felt the plane bank and start to descend, he looked up from his tablet to see that the flight attendant was coming down the aisle to collect the trash. She was in exactly that age range which piqued his curiosity. Frank stared at her for a few seconds trying to guess which side of that historical divide she fell on. As she approached, he glanced quickly back down at his tablet and pushed his empty water cup to the window side of his tray so she would have to lean across him to reach it. When her blouse sleeve slid up her outstretched arm, he had his answer. She had been vaccinated against small pox.

“Excuse me,” she smiled politely, “you’ll have to stow that away now and put your tray table upright as we prepare to land.”

So they were in the same cohort, he thought, born before nineteen seventy-two when the United States stopped routinely giving small pox vaccinations, possibly later if she was born outside the country. They might be lucky in the event of a weaponized small pox event and have enough residual immunity to provide protection. She looked younger, he thought, running his hand over his own graying head. There were even some white hairs in his eyebrows now. Slipping the tablet back into his bag, he gazed out the window at the desert landscape, wondering how many creatures beneath him were harboring Yersinia pestis, the plague bacteria. He knew of at least two.

Doctor Suresh Sunder met Frank at the Flagstaff Medical Center and debriefed him on the patients as they prepared to enter the isolation areas. The first examination would be in a section of the morgue since Peter Carter had already succumbed to the infection.

“Streptomycin was administered immediately to both patients, but it was too late for the older man,” Doctor Sunder offered the chart to Frank.

“Did they both become symptomatic?” Frank asked.

“Not the son, but we were able to culture a small amount of Yersinia pestis from the area around what looked like a flea bite on his back.”

“Anywhere else?” Frank slipped into the protective gown and tied the back.

“No. And after twenty-four hours of the streptomycin treatment there was no trace of the bacteria anywhere in his body. The father had it in his lymphatic system as well as in his blood. The antibiotic did not act in time before he died.”

Frank looked at Sunder, “How do you know it did not act in time?”

“Because the patient died,” Sunder replied.

“Was the bacteria level reduced?” Frank adjusted the protective hood.

“No, it was still high even at the time of death.”

“But it had fallen in the son.”

“That’s right,” Doctor Sunder acknowledged Frank’s point. If it was the same microbe, the streptomycin should have either worked for both or for neither. Even if the father had died because the treatment had been given too late, there should have been a reduction in the microbe count.

“How about in the sputum?”

“No,” Doctor Sunder was already sliding down the clear protective face shield, “It seems not to have been pneumonic.”

Frank was relieved that it had not been found in the airway. Pneumonic plague can spread through coughing as easily as a cold and would have amounted to a completely different ball game.

Peter Carter’s body showed traces of the purpura spots which generally accompany septicemia. There were also swelling blue buboes in the groin, though they were not extremely large. In septicemic plague the patient often died so quickly that the buboes did not even have time to form. The area around the squirrel bite was not very inflamed, and if that had indeed been the entry point for the plague bacillus, the septicemia would likely have proceeded quickly enough so that there would be no buboes. This all suggested to Frank that the septicemia had been secondary to the lymph infection. Careful examination of the body also revealed what could have been a flea bite, further supporting Frank’s initial conjecture. Internally the clotting of the blood often associated with septicemic plague was present. The lungs were clear, which was consistent with Doctor Sunder’s statement that no Yersinia pestis could be cultured from the sputum. Frank nevertheless took samples of lung tissue along with lymph, blood and other organ sections for further analysis. He also asked Doctor Sunder to provide him with specimens of the bacteria cultures taken from the lymph nodes and blood.

When he had finished examining Peter Carter, Frank cleaned up and disinfected his hands.

“Let’s go have a look at the son.” Doctor Sunder said as he led him out of the morgue.

One of the reasons Frank Skorzeny had gravitated to epidemiology after medical school was that he was not a people person. During his internship he loved the science of medicine but did not like dealing with patients, an aversion which had only grown stronger since his wife’s tragic death. He was far more comfortable working with cadavers than interviewing a live sick patient. But he needed to leave his comfort zone now as he went from the dead father to the living son. The protective suit lent Frank some personal isolation and also insulated him from pathogens. Whenever he put it on he was reminded of the medieval sketches of plague doctors wearing long beaks. Those were also a form of protection as the beaks were stuffed full of herbs and spices meant to filter any bad air ‘miasma’ out of the doctor’s nose. The impression on the patient must have been similar to that which Frank would now be making on the son.

“How are you feeling?”

Jim Carter was perhaps thirty years old. He needed a shave and his blue eyes were puffy. Probably from crying.

“Physically okay,” he played with the intravenous line, “I have to arrange to send Dad’s body home.”

“We will need to keep him here a few more days as a precaution,” Frank gently pulled back the sheet and palpitated under Jim’s arms and the groin area. There was no sign of swelling.

“Your surname, Carter, is that English?” Frank asked.

“It is,” Jim answered, “both my parents came from Sheffield.”

“Have you felt feverish or achy?”

Jim shook his head, “just from the hike. I understand I was exposed to the bacteria too.”

“Yes,” Frank examined the insect bite Doctor Sunder had told him about. It was a little red but did not appear infected.

“Was your father the only one bitten by the squirrel?” Frank asked.

Jim nodded.

“I hope you were able to get all your equipment out of the canyon,” Frank said.

“I took some of it which I was allowed to bring on the helicopter. I left the rest with Mike.”

“Mike?” Frank looked at Sunder who raised his eyebrows and shook his head in ignorance.

“My cousin,” Jim said, “he was with us on the hike.”

Frank, and apparently Sunder, had not heard about Mike.

“Where is he now?” Sunder asked Jim.

“He went home,” Jim answered.

“Which is?” Frank asked.

“New York City. He lives in Manhattan.”

When Mike Carter’s uncle and cousin were airlifted out of the Grand Canyon, he was left to load the majority of their equipment onto the mule the Park Service had arranged for him. The Cottonwood Campground where they had spent the night was the first stop on the hike from the North Rim to the South Rim. In order to make his way out of the canyon as quickly as possible, he reversed the first day’s route rather than continue on the longer way south. The mule would leave the gear at the North Rim Lodge where their adventure had begun and where the rangers had booked one night’s accommodation for Mike. He also managed to reserve a spot on the five hour Trans-Canyon shuttle to the South Rim where the rental car had been left in anticipation of the group hiking out some three days later.

Once he was outside the canyon and had regained reception for his phone, Mike called his cousin Jim, who told him that he was in the hospital in Flagstaff and that his Uncle Peter was seriously ill.

“I should get there in a few hours.” Mike told him.

“Don’t bother,” Jim said, “we’re in isolation, so you won’t be able to see us anyway. You might as well fly back and get ready for your reserve duty.”

Mike was able to rebook his original flights under emergency circumstances, and arrived in Kennedy Airport the next morning. That was when he first read the text message from Jim that his Uncle Peter had in fact died.

As he arrived at his apartment building, a burly man in a t-shirt greeted Mike with a back slap and helped carry his bags up the stoop, “Welcome back, Buddy. Coming from the reserves?”

“No Wally, a vacation with my brother and uncle,” Mike skipped mentioning the tragic ending of his trip. He didn’t dislike Wally, but found him a bit intrusive, “in a couple of days I’ll be doing my two weeks.”

“Good to know we got guys like you keeping the country safe,” Wally shook Mike’s hand.

After Mike broke up with his girlfriend Beth O’Neal, the main thing which kept them in touch was Tyke, the Rat Terrier they had picked up as a puppy from the pet shelter. Since Beth travelled frequently for work, Mike had won custody, but she had visitation rights. Her apartment in Brooklyn was a half hour subway ride from Mike’s place on Orchard Street near Broome. That area where the Lower East Side blurred into Chinatown was one of the somewhat affordable neighborhoods left in Manhattan. It still retained the slightly grubby look which it never seemed to shake off from its hundred fifty year role as an immigrant ghetto. Yet gentrification was creeping in and Mike was not sure how long it would make sense for him to keep paying what he was for a studio, in spite of the good salary he earned in banking technology. Beth had agreed to stay in Mike’s apartment while he was hiking the Grand Canyon and then again shortly after that during the two weeks he would be at Fort Dix.

“Sorry about your uncle,” Beth gave Mike a quick hug as he entered the apartment while Tyke jumped up to his waist, yapping without pause, “how’s Jim doing?”

“He doesn’t have symptoms, but he also tested positive for exposure to plague,”

“My God,” Beth shook her head, “I didn’t know plague even existed anymore.”

Mike pulled Tyke away to stop him from pulling a sleeping bag out of a duffel sack, “thanks for watching him. How was he in the dog park?”

“I took him to Corlears Hook instead of Coleman Oval.”

“It’s kind of empty there. Did you feel safe?” Mike dragged the bags through the apartment door.

“With Tyke to protect me, sure. I like it there because it’s easier to handle him without those other dogs around,” Beth squatted to get Tyke’s attention, but he continued to sniff around and try to get into the bags.

“I like to let him socialize though,” Mike let his backpack drop to the floor.

“He was plenty busy chasing the rats,” she said.

“That’s what he was bred for,” Mike smiled.

As Beth tried to pull Tyke out of a bag by the tail, she stopped and sniffed just like the dog.

“You smell like a mule.” She stood up with a frown, holding her nose shut.

“It’s not me,” Mike said, “they loaded everything on them to get it out of the canyon. Oh, do you think you’ll still be able to watch him for the next couple of weeks? I’ll be leaving for Fort Dix day after tomorrow.”

“Sure,” Beth had Tyke in her arms now as he wriggled to get free, “I’ll alternate between the two parks so he sees enough dogs to remember he’s not one of us.”

After Beth left, the physical and mental exhaustion of the past few days overcame Mike. Pulling his shoes off, he collapsed fully clothed on top of the bed and melted immediately into a heavy sleep. Tyke busied himself with unpacking the bags, though not quite as methodically as Mike would have. He made sure he investigated and rolled in every corner of every bag, taking in the novel smells with his sensitive nose and burrowing all the way inside to identify everything they contained. One by one the dog pulled every item out of the pack, licking what might in any way appear edible. All the dirty socks ended up on the floor as did the shirts, both clean and dirty. He also pulled out the clothing and gear of Mike’s Uncle Peter, burrowing inside one of the used t-shirts, still damp from sweat. He went as far down one leg of Peter’s hiking trousers as he could until his snout poked out of the bottom. Once Tyke had satisfied his curiosity about the contents of all the back packs, he sat down to scratch furiously at a sudden itch on the top of his neck. On the shelf above him stood the bottle of flea repellent which Mike had left for Beth to apply to Tyke while he was away. The bottle had not been opened.

Frank Skorzeny had tried to call Mike Carter several times on the cell phone number his cousin had given him in the Flagstaff hospital, but had only been able to reach his voice mail. When he got off the plane in Atlanta he tried one more time, then contacted the FBI to help track him down before heading to the CDC laboratory. Frank expected this outbreak would most likely peter out like the handful of other plague cases which he investigated each year. It would be a small incident affecting a couple of people and then be quickly brought under control through isolation and antibiotics. Some facts about these cases did have him concerned though. One was the failure of the streptomycin to reduce the count of the plague bacteria in Peter Carter’s body. It was true that the elder Carter was beyond saving, but still the antibiotic should have had some effect. You could put an antibiotic droplet on a culture in a simple petri dish and watch the bacteria die off in typical plaque rings around the points where the drug had been applied. The treatment had seemed to control the infection in Jim, but he was thirty years younger than his father, and his immune system might well have simply been able to fight off the infection on its own. Though the absence of fever or other symptoms suggested that the bacteria had not been able to infect him at all in spite of its presence in his body.

More worrying for Frank was the fact that Mike Carter had managed to return to New York City and was now unreachable. He needed to be located even though bubonic plague is actually not that easy to spread in the living conditions of a modern city. In the past, when such a pandemic would kill half the people in Europe, the population and animals lived in close proximity in the country, and in the towns the dwellings were crowded next to each other with rats and other potential animal vectors all around them. Fleas as well as lice and other parasites were more common, so it was very easy for diseases like bubonic plague to spread quickly. Although there was some truth to the urban legend that in any major city no one was more than six feet from a rat, they were for the most part not scurrying about inside apartments. Aside from the most indigent vagrants, citizens of a developed city did not generally have a problem with fleas as they would be quickly dealt with if discovered. In spite of these facts, Frank did not forget that the rats in New York did harbor the same Oriental Rat Flea which had carried the plague around the world several times over the centuries.

Frank was looking at an article about a plague city in England when Doctor Sunder from Flagstaff called.

“I have some news about the plague cultures,” Sunder said, “We have confirmed resistance to streptomycin.”

“In both of the patients?”

“Yes, the son’s body must have fought off the infection on its own,” Sunder replied.

Frank asked Doctor Sunder to make sure Jim Carter remained isolated while testing on other antibiotics continued. It was important to understand why he had not become sick even though he had been exposed to Yersinia pestis. After hanging up the phone, he headed to the laboratory where his colleague Catsi Nguyen was preparing the samples Frank had brought for identification and culturing. Yersinia pestis is a slow growing bacteria, so the Flagstaff laboratory would likely stay ahead of them, but it would nevertheless be valuable to confirm the results in Atlanta as well. In addition to the resistance tests, Frank wanted to know if the bacteria had infiltrated any other organs, particularly the lungs. Although there was no sign of plague in the sputum, it was important to see if the strain from the Grand Canyon might have a tendency to enter the respiratory system, presenting a greater risk of becoming pneumonic.

“You had asked me to do DNA analysis as well,” Catsi said, “are you looking for anything in particular?”

“Yes, see if the CCRC-delta32 mutation is present.” Frank said.

“The one which confers resistant to HIV infection?” Catsi asked.

“That’s right. It could also block plague infection.”

“I’d never heard that,” Catsi said.

Frank showed him an abstract in a medical journal describing how in the year sixteen hundred sixty-five a tailor in the town of Eyam in northern England received a bundle of cloth from London where the Great Plague was ravaging the population. Within four days the tailor was dead and all of his family save his wife would eventually die. As the plague spread in Eyam this pattern repeated itself. Entire households were wiped out with the occasional exception of one or two people. A miner’s whole family was killed by the plague, yet he survived and became the town gravedigger, burying many corpses, but never succumbing to the illness himself. The epidemic continued into sixteen hundred sixty-six in spite of a decree by the town rector William Mompesson that burials should take place as close to the location of death as possible in order to avoid spreading the disease. But what distinguished Eyam as a plague town was the decision to not allow anyone to leave in order to avoid spreading the epidemic to neighboring communities. Nearby towns would leave food and supplies on boundary stones surrounding Eyam. These stones marked the border beyond which citizens of the village could not pass. Eventually eighty per cent of the residents of Eyam died. Of those who survived, some suffered a brief illness, and some no illness at all.

“So what is the connection with CCRC-delta32?” Catsi asked.

“Read this one,” Frank handed him another article about the AIDS epidemic which described how as the number of AIDS patients and victims grew, it was discovered that the human immunodeficiency virus was the cause of the disease, and life styles were identified which increased the risk of contracting HIV. In an effort to slow the epidemic, cohorts of the infected patients who shared those same life styles were identified and contacted where feasible. It gradually became apparent that there were certain individuals who, no matter how risky their behavior, were completely immune to becoming infected with HIV. HIV infects T-Cells by entering through the CCRC receptor. Researchers discovered that a mutation called CCRC-delta32 blocked HIV from binding to the receptor. If someone inherited one gene for CCRC-delta32 that person would be resistant to HIV infection, meaning they could catch the disease, but it was harder for the virus to infect them than another person with no CCRC-delta32 gene. Inheriting two genes would leave that person completely immune to HIV infection.

“That’s the part I had heard about,” Catsi gave the paper back to Frank.

“And here’s the connection.”

Frank handed him another which related how gradually through genetic mapping, a pattern was established which indicated that this gene was only present in people of Northern European ancestry, with up to ten per cent of that population carrying at least one allele. The search for an event which might select for this gene suggested the many decimating plague and smallpox epidemics which had swept through Europe over the ages. Both of those diseases target the same cells and the epidemics devastated populations so quickly that a mutation which spared sections of the population would increase greatly in frequency in those populations. Since Eyam was one of the best known and most well documented of plague cities, the DNA profile of the town’s current population was the natural starting point to begin the investigation into genetic anomalies. Indeed the results showed there was a very high incidence of this gene among the descendants of the plague survivors of Eyam.

“So you think Carter might have this gene?” Catsi asked.

“The town of Eyam lies just outside Sheffield, the city which Jim Carter had identified as the home town of his parents. If Jim Carter had inherited immunity to plague, that would explain why he did not get sick even though the strain infecting him was resistant to the antibiotics used to treat him. It would also be stronger evidence that the antibiotic was not actually effective.”

“What do we do then?”

“Just keeping testing until we find one that works,” Frank said, “this bacteria is coming from the middle of the wilderness. It can’t have developed immunity to everything.”

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The reason that Frank Skorzeny had been unable to reach Mike Carter on his cell phone was because he was sitting in the middle of the stomping grounds of the legendary Jersey Devil – the Pine Barrens of Central New Jersey. Although Mike was a technologist in the Army reserves, he was still required to participate once a year in a two week field exercise where he would react to simulated break downs in field equipment. In spite of being surrounded with the technology he was required to service, Mike was not permitted to bring his personal cell phone with him on maneuvers.

This same isolation also made it difficult for the FBI to track him down. Agent Juan Garcia had at first tried to call his cell phone, then went to his apartment in New York, where he received no response aside from a dog barking behind the front door. While waiting for a judge to issue a warrant to enter, Agent Garcia contacted Mike’s employer who told them he was away on reserve duty. The reserve unit was given instructions to find and isolate Mike Carter as well as anyone who had come in contact with him. In the meantime the warrant to enter the apartment was issued and served on the landlord who tried to let the FBI agents inside. He was able to turn the locks, but a metal bar had been propped against the inside of the door, blocking entrance. This also meant someone inside the apartment was not responding. The dog barked furiously at the crack in the door, but in a tone of alarm rather than aggression. When the agents procured a sledge hammer from a local fire station and finally broke in, Tyke ran to a sofa bed and stood whining while looking at the officers imploringly.

“We need to call the coroner,” Juan Garcia said after pulling back the blanket.

Underneath the covers Beth O’Neal lay dead.

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As soon as Frank Skorzeny’s cell phone reception returned on arriving at the Philadelphia airport, he was able to read an email from Flagstaff notifying him that the bacteria which had infected the Carters was also resistant to gentamicin, and doxycycline, two of the other drugs indicated as treatment for plague. Doctor Sunder also said that Jim Carter’s blood had shown no sign of plague for several days and wondered how long they could legally keep him isolated. Frank asked Sunder to continue testing other antibiotics, particularly those targeting gram negative bacteria, and to keep Jim in the hospital for another couple of days. He wanted to see for himself the spot at the Grand Canyon where Peter Carter had been bitten, and would drop by the hospital when he returned to Arizona.

Mike Carter had only been in the Fort Dix infirmary for a day when Frank arrived to examine him. There had not yet been time to complete the tests which had been ordered to check for exposure to Yersinia pestis. Mike related his return from the Grand Canyon and how he had left all the bags in the apartment with Beth.

“I’ve been trying to reach her on her cell phone since I left the Pine Barrens,” Mike told him, “but she hasn’t answered.”

Frank did not want to be the one to tell Mike about the fate of his former girlfriend, something which he himself had only learned about on the way to Fort Dix. He had given instructions for the apartment to be sealed and had Beth’s body and the dog isolated and tests confirming Yersinia pestis exposure done on both of them.

“Have you had any fever or other symptoms?” Frank asked as he examined Mike, without a word about Beth O’Neal.

“None at all.”

Frank did not notice any lymph swelling or fever, but did see what could be flea bites on his thigh, “We’re worried that the outbreak might spread beyond your apartment in New York.”

“I don’t see how,” Mike said, “since neither myself nor my girlfriend—ex-girlfriend are sick.”

“There was also a dog, wasn’t there?” Frank asked.

“That’s right, Tyke,” Mike answered, looking a little puzzled that Frank knew that detail of his life, “Beth is watching him while I’m away.”

“Where might she walk him?”

“There are a couple of dog runs we usually use, Corlears Hook and Coleman Oval.”

As he was wrapping up the exam, there was a knock on the door. Through the window, Frank could see a man in protective garb along with a couple of officers and an army chaplain behind them. Wanting to avoid the awkward moment when Mike learned of his girlfriend’s death, he excused himself and, after confirming the proper isolation protocols were in place for the others who had been exposed, asked that blood samples from anyone who had tested positive for Yersinia pestis exposure including Mike, be sent to the CDC laboratory. He then walked to his car and started the trip to New York City.

Driving up the New Jersey Turnpike through the pharmaceuticals corridor between Trenton and New York, Frank saw the green sign of Gruenlicht Laboratories. His old friend and mentor Rudi Klarkopf had headed the antibiotics program there for many years, building it into one of the most productive laboratories on the east coast before eventually watching as it was gradually scaled back. Rudi had been Frank’s last hope when his wife Molly was sick. He fingered his cell phone for a moment, finding Rudi’s number still in his contacts list. But it had already been seven years. After a moment’s hesitation, Frank put both hands on the steering wheel and pulled into the fast lane.

The first stop Frank made on arriving in New York was at the Manhattan Medical Examiner’s office at Bellevue Hospital to see the body of Mike Carter’s former girlfriend, Beth O’Neil.

He was greeted by the pleasant, somewhat academic looking Doctor Jane Simmons, who had run the office for a little over five years. She was almost forty years old, but her clear complexion and horn rimmed glasses made her appear a decade younger.

“A peaceful face,” Doctor Simmons remarked as she showed Frank the body of the young woman.

It was true. From the neck up there was no sign of the devastation which had left its marks on other parts of her body. Buboes had formed in the arm pits and groin, and the black purple stains of ecchymosis from blood leaking under the skin were splashed on her arms and legs as well as on sections of her torso.

“Any pulmonary edema?” Frank asked.

“No, it was the septicemia which killed her,” Doctor Simmons pointed to the purple blotches.

“Have you cultured anything from the blood?”

“We were told it was likely plague, but we are still growing the sample,” Doctor Simmons looked at Frank through the double filter of her glasses and the protective face shield, “What’s going on here Doctor Skorzeny?”

“A strain of plague has been brought here from the Grand Canyon.”

“Bad as plague is,” Simmons said, “the sense of urgency in this investigation tells me there’s something more to this.”

Frank let out a deep breath through his nose, “There is evidence of at least some resistance.”

“Some?”

“The testing is continuing. But it is prudent to treat it as if this strain is not treatable.”

“I see,” Doctor Simmons said, “That means a lot more precautions.”

Although the CDC has a quarantine station at Kennedy airport, it is more intended to hold suspicious animals brought into the country. Tyke was instead sent to the Plum Island Animal Disease Center for holding. Since this was at the Northeastern tip of Long Island, Frank would not be able to examine him on this trip. His next stop was therefore Mike Carter’s apartment.

“Have you had to turn away many tenants?” Frank asked the officer in front of the Orchard Street renovated tenement which held Mike’s apartment.

The officer shook his head, “just a few. Most were evacuated right away.”

Besides the yellow police tape, there was a notice posted on the front of the building from the Department of Health. As he walked up the steps past a white mobile hazmat station outside he heard someone calling him.

“Doctor Skorzeny?”

Frank turned to see two men in suits following him up the stairs. “I’m agent Juan Garcia with the Federal Bureau of Investigation,” one of them said, “and this is the Commissioner of the New York City Department of Health.”

“Pawel Polopoff,” The squat, bald Commissioner held out a thick hand which shook Frank’s too firmly.

“Is this the only building quarantined?” Frank looked at the adjoining tenements, aware how rats used the cellars and rooves as highways.

“Just this one up until now, Doctor,” the Commissioner answered, “the building has been evacuated however, and the tenants quarantined on a special facility on Governor’s Island.”

“And all vents and windows sealed and the apartments fumigated,” Agent Garcia added.

“Isn’t Governor’s Island accessible to the public by ferry?” Frank asked.

“It is,” Polopoff responded, “but not the facility where the tenants are being held.”

“I’d like to check out the apartment,” Frank opened a case he had taken from the car and pulled out a protective suit.

“Sure, I’ll take you to it,” as the Commissioner reached to open the front door, Frank put his hand on Polopoff’s arm.

“Like that, without protection?”

“You are right of course,” the Commissioner said, “go right ahead in. It is apartment 2C. The door should be open. I’ll suit up and join you.”

With the air filter on his nose, Frank could not detect any smell, but he saw the bug bombs placed throughout the hallway. He also randomly pushed open the unlocked doors and saw that each apartment had also been fumigated. Up the stairs he found Mike Carter’s studio apartment. It too had a gas canister in the center of the floor. The backpacks and sleeping bags had been opened and spread out, presumably to allow the pesticide to reach every cranny. In the corner, next to an empty bowl, lay the sleeping mat for Tyke, and against a wall positioned so the morning sun would shine on it and help rouse whoever might be slumbering there, stood the sofa bed where Beth had lain never again to be woken by any sunshine or breeze or chirping bird.

As he looked through the apartment, Frank was not so much concerned with how Beth O’Neal contracted the plague infection, rather he was looking for any possible path the disease might have to spread beyond the building and infect others. Everybody liked to blame the rats which had at one point killed half the population of Europe. But he knew they were just as much victims as the humans. There was even a medieval axiom that if rats started to die, then soon a plague would occur. When it was later learned that it was the fleas which the rats carried which spread the disease, they became the villains, which of course was also wrong. The very fleas which spread the plague were themselves starving to death because their guts were full of Yersinia pestis. When the fleas tried to feed off an animal’s blood, their replete stomachs would cause them to regurgitate the bacteria into the host, passing on the infection. The immune population of hosts where the disease would lurk between outbreaks was also a factor in allowing the disease to periodically return in waves which were often many years apart. In endemic areas like Central Asia these might be gerbils or marmots. In the Western United States, ground squirrels.

There was another animal which Frank knew was also plague resistant, suffering at worst mild lymph swelling and fever before quickly recovering. Dogs were plague resistant, though they could pass the infection on to others.

Whether Peter Carter had been infected directly from the squirrel bite, or from a flea which had jumped from a squirrel, the disease must have been brought to New York in a flea. Since Mike was asymptomatic, there was little chance he could have infected Beth directly. Frank thought through the probable chain of events which had brought plague from The Grand Canyon to New York City, probably in the bags Mike had brought back on the plane, including the sleeping bag and tent where Peter Carter had lain feverish the night before he was evacuated. In fact fleas infecting humans spend most of the time when they are not feeding, hanging out in the person’s clothing. So Peter’s bags could easily have been the vehicle for transporting the fleas back to New York City. Tragic as the human deaths had been, from an epidemiological point of view Frank was most troubled by the dog, Tyke. According to Mike, Beth would regularly be taking him to dog runs to exercise, bringing him into contact with other dogs. Also, since he was a rat terrier, he would instinctively run after and try to catch any rodents or small animals he might encounter in those parks, potentially further disseminating the plague bacteria.

“Finally got this thing on,” Polopoff’s voice, muffled through the filter mask, caused Frank to turn toward the door of the apartment.

“Some of the vents are not properly sealed,” Frank pointed to an opening in the baseboard of a wall.

“Right, yes,” The Commissioner bent over for a closer look, “I’ll see to that. Anything else?”

“I’m concerned that the adjoining buildings should also have been sealed and the tenants quarantined until they are confirmed not to be infected.”

“Don’t you think that would be a bit excessive, Doctor?” Polopoff asked in a rather ingratiating tone, his index finger poking into his cheek inquisitively, “We have had some experience with contagion here, you know. We’ve always found that it was quite sufficient to isolate the unfortunate victims until they recovered. After all we are not in the Dark Ages here, are we?”

“We must be cautious until we are certain of the risk,” Skorzeny answered, “it won’t take long to determine if anyone is infected.”

“Yes, of course. I understand it is your job to be overly cautious, but the last thing the mayor wants is to start a panic,” Polopoff spoke to the back of Frank’s head as he descended the stairs.

“There are a couple of parks near here I want to see,” Frank paused outside the front door to remove his protective suit.

“Parks?” Polopoff pulled the mask off his face, “which parks?”

Before Frank could respond, a woman with a microphone approached the two men, followed by a cameraman, “Commissioner Polopoff, could you please comment on the rumors of a contagious infection in this street? Is the building sealed off because an epidemic has started? How do you think this will affect the mayoral vote next month?”

While the Commissioner responded to the reporter’s questions, Frank packed the protective suit in its case and dropped it in the trunk of his car. He found Coleman Oval Park on his smart phone and drove down Orchard Street to its location under the Manhattan Bridge. A plaque at one of the gates related the park’s history. Built on a former cemetery, it was named after Corporal Joseph Francis Coleman who died in nineteen nineteen of tuberculosis he had contracted in the trenches of the Great War. The park was busy in spite of the cool weather. In the shadow of the bridge were playgrounds, lawns and two dog runs on concrete surfaces. The runs were lively with a lot of interaction among the various breeds as the owners stood or sat chatting among themselves.

“Do you come here every day?” Frank asked an old man who was throwing crumbs to pigeons.

“Pretty much,” He said, “not much to do since my wife passed away.”

“Is one of them yours?” Frank pointed to a group of dogs frolicking under a tree.

“Yeah, the little schnauzer over there.”

“Aren’t you afraid of him catching something from the other dogs?” Frank asked.

“A little, but if you keep up with the shots and flea repellant, it’s pretty safe. Not everyone does though.”

On the next bench a little girl in a dress was sitting eating an ice cream cone and swinging her dangling legs. Behind the bench she was sitting on, against the fence, lay a black rat trap. Frank could tell by the motionless tail protruding from the entrance hole that it needed to be rebaited.

Corlears Hook Park was a half mile up the river and also had two dog runs. These were emptier and not as well maintained, with a natural surface and overgrown in places. Frank saw rat traps around the perimeter. The park was connected with footpaths to a nearby baseball field and also to the other parks of the Manhattan Waterfront Greenway which ran along the Manhattan shoreline. If Mike’s dog had been regularly brought to exercise in these parks, there was a significant risk that it had passed infected fleas to other dogs or rodents or even directly to people. If they were lucky, Beth would have been infected directly by a flea which had jumped from Peter’s clothing to her. The flea would probably have either left her body after feeding and been killed in the laundry, or washed off when she showered, so there was not much chance of her spreading it to other people. If the dog were involved however, then the risk for the outbreak spreading was considerably higher, especially if a flea had jumped from Tyke to a dog which hadn’t been treated with repellant, or to a rat.

As he returned to Kennedy airport to fly back to Atlanta, Frank received a text from Catsi Nguyen stating that the Yersinia pestis culture had shown resistance to five more antibiotics. The next day Frank would return to Flagstaff and then go on to the Grand Canyon to visit the location where Peter Carter had been bitten, but not before recommending that New York City close all dog runs and intensify its rodent control program.

Yersinia pestis is in a class of bacteria called Gram-negative which also includes E. coli, Salmonella, Legionella, Gonorrhoeae and several other pathogenic organisms. By definition this class of bacteria does not turn violet when subject to the Gram staining procedure used to differentiate bacteria. The most medically significant characteristic for Frank however, was the presence of an extra membrane surrounding the cell. One of the components of this membrane is a liposaccharide which can cause a life threatening toxic reaction if it enters the blood stream. In addition to this nasty toxicity, the membrane renders these bacteria impervious to many antibiotics. For this reason several classes of antibiotics were developed to treat these infections. The fact that plague killed so quickly meant that even if the right treatment were found, the infection could still be fatal if it were administered too late.

Although Jim Carter had shown no sign of Yersinia pestis in his body for several days, Frank was still nervous about releasing him before the extent of the pathogen’s immunity to antibiotics had been completely understood. But with Jim’s body now clear of the bacteria, there was really no justification for detaining him any longer. Frank entered his room without the protective suit.

“How are you feeling?”

“I’ve felt fine since the first day I got here,” he had not shaven as if in protest, “fine except for the loss of my father.”

“I’m sorry it has taken so long, but you were infected with a particularly nasty bug.”

“The only reason I know I was infected was because you’ve told me,” Jim reiterated his frustration, “I hope you’ve come to release me.”

“Indeed I have,” Frank smiled, “one way or another your body has fought off the plague. We are still trying to figure out how. For that reason we’d like to make sure we are able to reach you when we need to.”

“Well, I don’t have any more hikes into the wilderness planned. Wasn’t it the medicine I was given which cured me?”

Frank shook his head, “It doesn’t seem like that had anything to do with it.”

“What about Mike?” Jim asked, “I spoke to him this morning. He told me Beth O’Neal has died.”

“That’s right, unfortunately,” Frank pushed the IV stand away from the bed, “as you can see, there is reason to be alarmed and to take the necessary precautions. We will keep your cousin isolated for a few days as well until we are sure of his state.”

“I just want to move on at this point and get my father buried.” Jim stood up and started to arrange his things to leave.

“I’m sorry to tell you that your father needs to be cremated,” Frank said.

Jim paused in his activity, “I see. I kind of expected that, I guess.”

“There is something you can help me with however,” Frank activated his tablet and showed Jim a map of the Grand Canyon.

“You said that you started your hike from the North Rim,” Frank zoomed into the area near the North Kaibab trailhead, “where exactly did the squirrel bite take place?”

“It wasn’t on the North Rim,” Jim reached over and panned the map down across the canyon to the South Rim, “it was right here at Mather Point. We spent the first night at the Yavapai Lodge so we could catch the shuttle to the North Rim early the next morning. We were taking in the view on the afternoon we arrived when it happened.”

As remote and wild as the area around the Grand Canyon was, the South Rim was a busy tourist destination. Frank could see from the map that it was full of hotels right on the edge of the canyon. There were museums, restaurants, trails, information stations, shops, a post office and the main ranger station overseeing the park. For those who could not find accommodation within the park, the Grand Canyon Village right outside offered even more lodging, restaurants, supermarkets and all the amenities of a small town. In short there was a constant flow of tourists and the service workers supporting them arriving with their money and leaving with a little less of it. They also left with whatever they had acquired during the visit, intentionally and unintentionally.

Frank had arranged to speak with the management of the park that afternoon at the South Rim Visitor Center, so he had a little under two hours’ drive ahead of him. The vibration of his phone upon leaving the hospital made him aware of the messages he had missed while talking to Jim and Doctor Sunder. One was from Catsi Nguyen keeping him up to date on the growing list of antibiotics he had found to which the bacillus was resistant. That was no surprise, as Doctor Sunder had told Frank he was finding the same thing. There was also a nervous voicemail from Commissioner Polopoff insisting that closing all the dog runs was an unnecessary and even dangerously ‘disruptive’ step. Finally there was a call from Jane Simmons, the New York Medical Examiner, asking him to call her as soon as possible about an issue of ‘extreme urgency.’

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The discovery of a dead homeless man is unfortunately normally not a particularly noteworthy incident in New York City. Jane Simmons would have regarded it as a rather routine case had the location of the body not been so close to the apartment where Beth O’Neal had been found dead. Tucked under an overhang of one of the Manhattan Bridge bases in exactly the type of spot a vagrant might seek shelter, a filthy middle aged Caucasian man with a scraggly beard lay lifeless. A trickle of dried blood ran down from the corner of his mouth to the chin. Signs of rats all around the location included droppings and the typical burrow openings in the soil. Besides that, there were nibble marks on the exposed areas of the body. As the police documented the scene of death, Jane Simmons had her assistants place the body in a bag for transport back to the coroner’s office. She then looked at the nearby playground of Coleman Park and walked over to inspect the dog run. Doctor Skorzeny had copied her on his recommendation that all dog runs be closed and she knew this was one of the spots suspected to have been used by the Rat Terrier found in the apartment with Beth O’Neal. Yet it was open without even a warning to the owners of the pets which frolicked and played there, rubbing against each other and the humans which accompanied them. And of course returning to their homes and the residents of those homes, young and old.

After performing an autopsy on the homeless man and starting tests on the blood, Jane Simmons called Health Commissioner Polopoff.

“We need to close at least those parks which Doctor Skorzeny identified as potential hot spots,” Simmons immediately said when Polopoff answered the phone, “I just removed a body from under the Manhattan bridge, and the first indications are he died of a serious respiratory infection.”

“Oh that *is* terrible,” Polopoff exclaimed in that overly sincere tone Simmons was familiar with, “these poor tragic homeless souls. He was homeless, wasn’t he? Did you say that?”

“He hasn’t been identified yet,” Simmons responded tersely.

“Oh he hasn’t? But he lived under a bridge?”

“That’s where his body was found,” Simmons continued, “we know there is a risk that the plague…”

“You do not have results yet though, isn’t that right?” Polopoff interrupted, “these unfortunate souls living in such miserable conditions are apt to suffer such calamities. If only the city council had approved the mayor’s proposal to increase funding for the shelters.”

“Commissioner Polopoff,” Simmons could not contain her exasperation, “this is not a political issue. This is a public health issue. If the contagion spreads…”

“And what contagion is that, Doctor Simmons. We don’t know yet, do we? Do we?”

When the conversation ended with Polopoff’s assurance that actions would be taken ‘quick as a gasp’ if any real evidence would surface, Jane Simmons put the phone in her pocket and looked out her window at children chasing each other under the fall foliage of the trees in Bellevue South Park. She tapped on the window. That glass let her see those children without hearing what they were saying. It was like trying to convince Polopoff of the risk, she thought. She could talk all she wanted, but couldn’t get through to him. It was also like the barrier the immune system formed to keep infections out. If the barrier did not work, the bacteria would get through. Antibiotics had been able to plug gaps in that barrier, but now those plugs were themselves failing. Vaccines were another plug, but they were targeting mostly viruses since antibiotics were thought to have bacteria covered. The existing plague vaccines were not consistently effective, and with the rarity of plague and its vulnerability to antibiotics they were never developed on a large scale. The United States certainly did not have a sufficient stockpile to respond to an epidemic. She had never hoped so strongly in her life that she was wrong about something. And that Polopoff was right.

Driving through the desert landscape between Flagstaff and The Grand Canyon, Frank Skorzeny could not decide whether this part of the country was beautiful or boring. It in some ways seemed almost sickly from the lack of lush vegetation the wetter eastern climate supported. On the other hand the vast deserts were fascinating. As was the roadkill. When he first saw a dead elk on the side of the road, he thought it was an injured horse. It was huge compared to the wimpy whitetail deer of home. Closer to the canyon, the pine forests thickened into a landscape he found more interesting. He knew there were exotic and dangerous animals out there, rattlesnakes, scorpions, poisonous reptiles, mountain lions. But they were never visible. What he did find intriguing, but never got around to trying was the elk, bison and deer jerky advertised at stops along the roadside. Perhaps this trip he would buy a batch to bring back with him to the lab. If it tasted bad, they could always give it to an intern to analyze.

Once he had made it through the Grand Canyon Village and lined up to drive through the main gate, it felt to him as though he were waiting at the entrance to a theme park. That impression persisted as he drove along the orderly roads with their miniature bonsai like pines and scrub and approached the main Grand Canyon Visitor Center. Noticing the tourists everywhere, his professional epidemiologist’s eye saw in the visitors from all over the world millions of potential vectors converging on this spot in the wilderness and mingling, not just among themselves, but with all the indigenous flora and fauna of the area as well as with each other’s fauna and flora, which they would then disperse back around the world.

A sign indicated that Mather Point, where Jim had said the squirrel bite took place, was about a hundred yards ahead of him. But first he needed to check into the Visitor Center and talk to Ranger Ferdy Alvarez.

“It is no secret that there is plague among the animals here in Grand Canyon,” Ranger Alvarez, lean and fit from his regular hikes into and out of the canyon, put on his hat as he and Frank stepped out of the Visitor Center into the sunlight. For emphasis he pointed to a sign warning against feeding the wildlife.

“Visitors fly into the area from some metropolis,” he continued, walking toward Mather Point, “and because of the order and organization here on the South Rim they get the impression that it’s all somehow controlled. It’s not though. We are just an island of development in the middle of a sea of wilderness.”

Frank looked at the squirrels scurrying all about them as he followed Alvarez. They would constantly approach to see if there was some snack available, then scamper off a little, all the while looking back. If a visitor squatted down, they would come running back to see what he was offering. Frank saw them crawling onto and even into bags and purses which the tourists had laid on a bench while they took photos. They had obviously grown up interacting with people in a very familiar way.

“Up here the wild animals people mostly see are squirrels and ravens,” A surreal bellow booming through the crisp fall air corrected him, “And elk too. But there are a lot more animals around. At night the raccoons will try to get into the trash bins. Incidents will happen.”

Frank began to understand how unfeasible it would be to try to restrict human contact with the animals beyond posting the warning signs.

“Plague is actually one of the least safety worries we have,” Alvarez had led Frank right up to the rim now, “there is rabies, Rocky Mountain spotted fever, and that’s just the diseases. Falls, dehydration and heat exhaustion are actually the real killers here.”

Beyond the safety rail Frank could see a mule deer nonchalantly browsing on the tough vegetation of a cliff edge.

“I appreciate what you are saying,” He replied, “but we have a potentially very serious strain which seems to have come from contact with a squirrel here. If it were necessary, how hard would it be to close the park?”

“It is as simple as closing the entrance,” Alvarez shrugged, “every time a budget crisis in Washington reaches an impasse, the parks are among the first non-essential services to be suspended. But look out there.”

He waved his arm over the immense chasm twenty-three miles across, “it’s not that hard to sneak in.”

Looking out across the vast gash in the earth, Frank could discern one long rather meandering but basically continuous valley cutting across from the North Rim until it reached a spot just below where they were standing. It passed through scattered oases of green vegetation which contrasted with the pastel colored, but barren, sedimentary layers.

“Is that the Colorado River?” he asked Agent Alvarez.

“No,” Alvarez shook his head, “most of it from the North Rim down to that green spot is the Bright Angel Creek. It feeds into the Colorado right down there.”

Once Alvarez had pointed it out, Frank could see a silver bend in the river between two of the countless eroding pinnacles.

“That’s the main hiking trail for rim to rimmers,” the ranger said, “one mile down, twenty-three miles across, then one mile back up.”

Frank thanked the ranger for the overview and continued walking along the rim trail. Peering over the edge he saw a constantly flowing stream of ant sized hikers climbing out and walking down into the canyon. As he strolled past hotel restaurants with elk and bison meat on their menus, he thought about how resistance develops. The Grand Canyon seemed at first glance an unlikely location for a pathogen such as plague to evolve into a resistant strain. That normally happened where there was a steady exposure to low levels of antibiotics as would occur in a hospital. To become multi-resistant this would need to occur over a broad spectrum of classes of the drugs. How was this happening in the middle of a great wilderness? Frank knew there were occasional outbreaks of bacterial infections in these hotels and the neighboring Grand Canyon Village as well as among recreational rafters in the river. The infrastructure had been built in the nineteen twenties and that infrastructure included sewer lines and water treatment plants. He stepped inside one of the hotels to use the restroom. All those flushes from all those people were emptying into all those old sewer lines which almost certainly experienced occasional leaks. All the excess antibiotics would be excreted from the body with the waste. People also sometimes discarded into the toilet pills which they did not intend to finish taking, or they were thrown into the trash, or simply on the ground. This could all contribute to gradual evolutionary selection for resistance.

Leaving the restroom, Frank again passed the restaurant entrance and looked over the menu. There was beef and chicken and pork on the menu, but there was also the wild game which Frank had noticed earlier. He knew that in order for any kind of meat to be sold to the public it had to be inspected upon slaughtering. That meant all these menu items, wild or domestic most likely came from some type of farm or ranch. It would not be practical to bring an inspector and his equipment on a hunting trip. While the game farm signs he had seen driving from Flagstaff advertised free ranging meat, those animals needed to be cared for and treated if an illness occurred. Those same farms were also of course businesses with the pressures to be profitable and compete which any business had. Low antibiotic doses in the feed were known to increase cattle size. Could some of the game farms be regularly dosing their animals? Frank did not know, but it seemed conceivable that even in this pristine wilderness there could easily be selective pressure for the evolution of resistant strains of bacteria. In Madagascar such a strain of plague had emerged a few years earlier, albeit under different circumstances. Fortunately it could eventually be treated by some more recently developed antibiotics.

Frank stepped up to the safety rail for another look over the canyon and was astonished to see a rather scrawny Navajo about fifty years old dressed in khakis and a shade hat, stepping on rocks and hopping over cracks on the very precipice with amazing agility. He would stop frequently to bend down and pick something up which he would then put into his pocket.

“What are you collecting?” Frank asked him.

The man looked warily at Frank, “Coins.”

“People throw them over for luck?”

“It’s lucky for me,” the scavenger responded.

“Aren’t you afraid of falling?” Frank asked.

The man shrugged, “More afraid of being poor.”

“Are there many fatal falls?”

“No fatal falls,” the man walked closer to the rail and looked at Frank, “but last year there were three fatal landings.”

Frank smiled at the man’s obtuse responses, “what about other things? What else are people dying from?”

“Ni’hoosdzáán picks whatever way she wants to take people,” the man was counting the money he had collected.

“Do the squirrels make many people sick?”

“Many, over the centuries,” the man stepped through the rail next to Frank.

“If I want game, like elk or bison jerky,” Frank did not hold much hope for a straight answer, “where’s a good place to buy it?”

“Outside the park,” the man answered with surprising clarity, “there’s a shop called ‘Game Day.’”

“Is it good?” Frank asked.

“Good for you,” the Navajo said before walking away, “bad for the elk, bad for the bison.”

Frank saw the Game Day shop just past the Grand Canyon Village as he drove back from the canyon. A man in his sixties with a long curly moustache touched the brim of his cowboy hat when Frank entered the shop.

“Howdy, Pardner,” the shop keeper said.

Frank gazed around at a menagerie of dead animals, heads of animals, orphaned antlers and horns, and tiny feet with key chains attached as if they had been sawn off by little escaped convicts. Through a door in the back he could see there was another room selling guns and ammunition. Above the entrance a sign was posted advertising the opportunity to shoot a machine gun, as well as eat the best burger in the world. There was a discount if you did both, posted along with the advice to wash off the gun powder between the two activities. After browsing a bit, he found a rack with packages of wild jerky hanging on it.

“Do these all come from the same ranch?” he asked the man.

“Oh no,” the cowboy said, “we get from whoever’s selling,” he stepped around the counter with his thumbs looped over a huge belt buckle. His boot heels clunked on the wooden floor like mule hooves as he stepped over to Frank.

“Which are the best?” Frank asked.

“That’s a question I don’t hear much from people passing through,” he said with a salesman’s flattery, “The tourists just grab something for the novelty, and the locals already know the answer. Come around here,” the man indicated for Frank to follow and led him into a room with a much larger selection of dried game meat.

“Are all of these farm raised?” Frank looked at a variety of different packaged products as well as longer strips of unpackaged meat hanging on a separate wall.

“Well not necessarily farm,” the man said, “usually these come from ranches with a lot of land so the stock can range freely. It has to be inspected, though, else I couldn’t sell it. That stuff there, though, is artisanal.”

The man indicated the unpackaged meat, “I can’t sell that to you, but I can give it away,” he gave Frank a wink.

Frank was more interested in the packaged products which likely came from an authorized ranch, “what’s the difference between them?” he asked.

“Well, for one thing,” the cowboy plucked a few bags off the rack, “it’s different animals. The big three are deer, elk and bison. Then it’s the spices they put in them, and how dried out they are. Then of course there’s that intangible something each outfit has, the terroir, you might say.”

“Which do you think is the best?” Frank asked.

“Couldn’t tell you,” the man said, “I’m a vegan.”

“Well, I guess if I wanted a representative sample,” Frank said, “I’d better get one of each animal from four or five ranches.”

As the shop keeper prepared a variety package for him, Frank checked the messages on his phone. The list of antibiotics to which the strain was resistant kept growing ominously. And Jane Simmons confirmed that the body recovered near Coleman Oval Park was infected with plague. And it was a pneumonic case.

From the helicopter window Frank watched the North Fork of New York’s Long Island shrink behind him as the isolated island on the edge of Gardiners Bay swelled before him. He could see quite a bit of vegetation and occasional dilapidated structures poking above the trees and bushes. There were a couple of other islands close by, and off in the distance were Martha’s Vineyard and Nantucket. But Frank was headed for Plum Island. A pretty little lighthouse stood toward one end of the island with some seagulls prowling the air around it. The largest and most conspicuous and modern buildings formed the Animal Disease Center complex.

Plum Island, off the Northeast shore of Long Island is named after the edible Beach Plum shrubs which the early Dutch settlers discovered there in the seventeenth century. The island changed ownership among several families over the years until it was ultimately bought by the United States Government in eighteen ninety-nine. A fort was built and used as an artillery post and then as an anti-submarine base during World War II. The Animal Disease Center was established there in nineteen fifty-four to study animal pathogens. Since then it has been off limits to the general population. Any wild mammal seen on the island is killed to prevent the spread of diseases being studied there. There were rumors, denied by the United States Government for many years, that biological warfare research took place on the island. These rumors were finally confirmed in nineteen ninety-four, though the program was said to have been discontinued decades earlier. Among these rumors were reports that anthrax and small pox microbes were stored on the island. There were some initiatives to close the research facility and relocate elsewhere, but they were never implemented. One of the reasons was said to have been that the island allowed for the circumvention of prohibitions against storing certain dangerous pathogens on the mainland. Supervision of the island had been transferred to The Office of Homeland Security when that Department was formed following the nine eleven attacks on New York City.

Even from the air the high level of security at the facility was apparent. As the helicopter approached the landing pad, he could see armed checkpoints at the dock where the employees were shuttled to and from the island by ferry from Long Island and Connecticut. An attractive woman in her mid-thirties with a toothy smile received Frank at the entrance to the main building. He was struck at how sharply she was dressed in contrast to the otherwise drab employees, most of whom wore simple white lab coats.

“Welcome, Doctor Skorzeny,” she extended a hand with meticulously polished nails and a glittering gold bracelet, “I’m Doctor Cynthia Foster. I’ve been managing the examination of the plague dog.”

Frank followed her as she led him down a long hallway. They walked through several doors requiring Doctor Foster to use her access card. They also passed many doors marked as restricted access which Frank could see through small windows led to additional side corridors.

“Have you carried out any tests on the dog?” Frank asked.

“We have, actually,” She smiled at him over her shoulder as they entered a room where safety suits were hanging on wall hooks, “plague cases are rare, so he’s been quite a celebrity.”

Frank picked out a suit which looked to be about his size as Doctor Foster also dressed, “Have you found anything yet?”

“The presence of plague antigens confirms exposure,” She touched her access card to a final door, “but it seems his body has already eliminated the pathogen, so we have not been able to culture it from his blood.”

Tyke’s ears perked up and he barked hopefully as Frank opened the cage. The dog eagerly sought a spot around his face mask where he could lick him.

“But you keep him isolated anyway? “ Frank felt for swollen lymph nodes, but the dog seemed normal.

“We tend to be overly cautious here,” she leaned against the wall with her arms folded, “we had a Foot and Mouth outbreak a few years ago and had to destroy every mammal on the island. Except the humans, of course.”

“Yes, I heard about that,” Frank eased the reluctant dog back into its cage. He had come as a matter of protocol as it was necessary that he examine the dog, but since the pathogen had already been identified, the focus of the crisis had become securing and containing the incipient epidemic in downtown Manhattan. It did become clear to him however, that Doctor Foster was very interested in the outbreak.

“I guess you might have cultured the strain by now, haven’t you?” Though she maintained her smile, her lips were pursed a little more tightly, her dark eyes focused on him with rather disconcerting intensity.

“Yes,” Frank stood up and locked the cage on the whimpering dog, “we’re continuing to run tests on it.”

“There must be a reason for that,” She stepped aside to let Frank pass through the door, “Yersinia pestis is a pretty well studied organism after all.”

Frank removed his protective suit without responding.

“Is it true the strain is resistant?” Foster went right to her point, “is that what you are researching?”

“The testing is continuing,” was all Frank would say.

“It would be very useful for our work here,” the tone of Doctor Foster’s voice became more pressing as Frank prepared to leave, “if you could provide us a sample.”

“What work is that?” Frank asked.

“For procedural reasons I can’t really say. If there were a novel plague strain, of course it could provide us with useful data.”

“You must be aware I don’t have the authority to approve such a transfer,” Frank replied politely, “there would have to be a formal inter-departmental request. For procedural reasons.”

Cynthia Foster smiled at Frank’s response, “We are both good servants.”

Frank did not say it, but as he left he feared there would soon be more than enough plague bacillus to go around. He also left with the feeling Cynthia Foster was unusually ambitious for a government employee. A combination which he for some reason found unsettling.

When Frank left Plum Island, the helicopter flew him to the East Thirty Fourth Street Heliport. From there it was a short walk along the river under the elevated FDR Drive to Bellevue Hospital where Doctor Jane Simmons was expecting him. This time when he arrived there was no cadaver waiting for him to examine, but rather a very serious Medical Examiner in a conference room.

“I need some backup,” she said bluntly as she shook Frank’s hand and offered him a chair.

“We are still trying to find a vulnerability in the bacterium,” he responded, “but I just received a new list of antibiotics this morning to which it has been determined to be resistant.”

Simmons shook her head, “I don’t mean that kind of backup,” she stood up and moved to a map of Manhattan hanging on the wall on which she tapped the spot where the body had been found under the Manhattan Bridge, “it is obvious what has to be done now that we have proof the plague is spreading.”

“Do you want me to assist you in developing a containment plan?” Frank watched her finger slide from the bridge down the map to city hall.

“I have a meeting with Commissioner Polopoff and the mayor in an hour. I would like you to come with me.”

“Certainly,” Frank answered, “though I have not prepared anything.”

“I think I have enough data to make the argument,” She said, “what I need is someone who does not report to the mayor’s office.”

Nobody could claim Mayor Ronny Jenkins’s background did not reflect the people of New York City. His grandparents on his father’s side had been African-American and Puerto Rican, while on his mother’s side they were Irish-American and Chinese. This formidable combination led most of the electorate to convince themselves he would in some way represent each of their interests. The honeymoon did not last long however. In politics, and in New York City politics in particular, every decision made to help one interest group would end up offending another one. Somehow Mayor Jenkins had managed during his tenor to amass a list of the offended which was much longer than the list of those who felt he was in their corner. When a poor black man died in police custody the police felt he did not have their backs since he was after all Black and Puerto Rican, while the poor community thought he was letting the police get away with murder since he was after all Irish. His initiative to improve the test scores of the city’s school system left the teachers resentful of his plan to have them recertified, while at the same time rankling the parents of children in schools he shut as underperforming, since the children needed to be transported farther to another district. Shop owners felt his new pedestrian zones were cutting back on their customers, cabbies wanted him to restrict online car services to outer boroughs, and the list went on. He was given a less than fifty per cent chance of victory in the next month’s election. And now he was being pressured to announce measures to avoid a plague epidemic. Still he was able to turn on his charm when Jane Simmons introduced Frank Skorzeny.

“I have always been very impressed with the work you guys at the CDC do,” he shook Frank’s hand firmly and grasped his forearm. The mayor then asked for the participants to be seated.

“Seems we have a bit of plague going around,” he opened the discussion.

Doctor Simmons glanced at Frank, then at Polopoff who sat with his index finger in his cheek, “I wouldn’t minimize it so much,” she said.

“Nor overblow it,” Polopoff interjected.

“The concern, Mayor,” Simmons went on, “is not just that it is plague, but that we don’t yet know how to treat it.”

Mayor Jenkins raised his eyebrows at this comment and looked at Polopoff, who removed his index finger from his right cheek and inserted the other into his left cheek as he shifted in his seat.

“Well, we have not tried everything yet, have we?” Polopoff said.

“The patients have not lived long enough to allow us to do that,” Simmons replied, “though in the laboratory nothing has yet worked against the infecting agent.”

It appeared this was the first time the mayor had heard anything about the antibiotic resistance. He clicked a pen open and shut a few times as he listened.

“But that should just be a matter of time, right?” he looked at Frank.

“That’s what we are hoping for,” he responded, “we are now trying second line antibiotics.”

“What does that mean?” The mayor asked, “The first one or two did not work?”

“The first seventeen did not work,” Frank said.

Mayor Jenkins looked once more to the Health Commissioner for input. Having no more cheeks to poke, Polopoff interlaced his fingers on top of the table.

“The excellent work of the CDC and the Medical Examiner’s Office will certainly find the right medicine,” Polopoff said, “We can rest assured of that. We must not impede them from doing what they are best at, what they *know* about. Let us not burden them with public policy decisions, though. That is for us to decide. For you to decide.”

He spoke the last sentence nodding his head toward the mayor as if allaying any presumption he might be making the decision himself.

“The Commissioner makes a good point,” the mayor tapped his pen tip on the table top for emphasis, “you have given us some excellent input. Important information for us to reach a conclusion.”

“I’d like to make another point,” Frank interrupted the mayor as he seemed to be preparing to close the meeting, “the issue is not just about finding a treatment. It is also about the means of transmission.”

The Mayor looked puzzled, “I thought it was through fleas.”

“The last case was pneumonic,” Simmons said, “he could have transmitted the infection simply by sneezing, or coughing.”

“Or wiping his hand on his nose,” Frank elaborated on the Medical Examiner’s thought, “then touching a doorknob, a Subway turn style, a salad buffet. . . .”

“I am not sure I can completely buy into that risk assessment.” Polopoff’s finger burrowed again into his cheek, “to say that a victim has shown the presence of the bacteria in his lungs is not the same as saying he has a pneumonic variety. It could have found its way there after he died.”

While Frank just stared at Polopoff, Jane Simmons could not contain herself.

“Commissioner, he had bloody edema in...”

The mayor raised his hand to stop her as he glanced at his watch. He was already late for a meeting to try and avert a strike by the sanitation department.

“I can see this is a very serious situation,” He said as he stood up, “certainly the two dog runs beneath the Manhattan Bridge need to be shut. . .”

“Not the entire parks?” Frank asked. The mayor gave him a peeved glance.

“Not at this point,” He continued, “we will issue a decree closing those runs. Pawel, phrase something about the rats. Let it come from your department.”

“But Mayor...” Simmons tried to interrupt him. Again he raised his hand to stop her.

“For now this is the step we’ll take. We will prepare for further measures if things deteriorate any more.”

The Mayor shook hands with Frank and Jane and left the room with Polopoff.

Frank stood for several seconds looking out the window at the Mayor’s constituency passing in the street. “What kind of deterioration does he need?”

“How about this?” Jane handed Frank her smart phone which displayed a text indicating three young men had been admitted to New York Downtown Hospital in Chinatown with life threatening respiratory infections.

Before attending the meeting with Mayor Jenkins, Frank had called Rudi Klarkopf. He was still working at Gruenlicht, and would love to meet Frank in the evening. When the latest respiratory cases were announced, Frank was torn between staying to assist Doctor Simmons and keeping his appointment with Rudi. If it had only been a social visit, he would have cancelled meeting Klarkopf, but having received fresh emails from Catsi and Doctor Sunder extending the list of ineffective antibiotics, he could not think of anyone better to ask for advice. Besides that, he was confident in Jane’s ability to manage the situation and so felt that he could afford to leave the hospital. He did however cancel his next morning’s flight back to Atlanta and extend his hotel stay to the end of the week. He had arranged to meet Rudi at the Edison train station.

“Franky.” Rudi jumped out of his car and waved.

Even though Frank had prepared himself for the inevitable aging, he was still taken aback by his friend’s appearance. But then Rudi would be close to seventy now. They drove to a German bar and were led to the Stammtisch, the table reserved for regular customers.

“Zwei Weissbier,” Rudi held two fingers up to the waitress in the Dirndlkeid, “you still drink Weissbier?”

Frank smiled, “When I can get it.” Rudi’s warm German accent was soothing after the stressful week.

“It’s been what, five years?” Rudi’s eyes twinkled between the crow’s feet as his smile shone through his bushy white moustache. He still seemed in need of a haircut around the sides and the hair on top was a bit thinner.

“Seven,” Frank responded, “since . . .”

“Molly,” Rudi completed the sentence for Frank as he played with a beer coaster.

They sat silently looking at the wooden table until the tall Weissbier glasses were placed in front of them.

“Bitte sehr,” Said the waitress.

“How’s the antibiotics program?” Frank finally asked.

Rudi shrugged, “I feel like a museum curator.”

“No new development?”

“Not really, prost,” Rudi offered a toast, and continued after his first gulp, “it’s mostly tinkering around the edges and investigations of issues. I teach interns the basics.”

“I don’t understand it,” Frank said, “with so many resistant strains popping up.”

“It’s a business decision,” Rudi explained, “why spend a billion dollars to develop a drug that will only be taken for ten days? The real money is in blood pressure medication, or heart pills. Something that has to be taken for life.”

“But if you can treat one of these resistant strains, that should be a blockbuster.”

Rudi shook his head. “Only until it develops resistance to the new drug. As long as the over prescription and livestock supplements continue, it’s only a matter of time before any new antibiotic is obsolete. It doesn’t make business sense.”

“What would you do now differently instead?” Frank asked.

Rudi hesitated, “I’m sorry, I did what I could for her.”

Frank held up his hand. “I’m not talking about Molly.”

Seven years earlier Frank had begged Rudi for help when his wife Molly had acquired an MRSA – Methicillin-resistant Staphylococcus aureus infection after a minor surgical procedure. The infection kept worsening in spite of the administration of several different antibiotics. When it entered her blood stream, Frank grew desperate. He knew Rudi’s department had several experimental antibiotics in his laboratory which were far from ready to be even submitted for approval. Some of these were meant to target MRSA. Rudi requested that Gruenlicht make an exception and allow them to be administered to Molly. But the company would not permit it. Molly eventually succumbed to the infection.

“I should have just taken them.” Rudi said, “I could have simply walked out with them.”

“Rudi,” Frank tapped his friend’s arm, “I’m not thinking of the past. I’m talking about now.”

Rudi looked up from the table at Frank.

“What would you do now,” Frank reiterated, “if you were dealing with a resistant gram-negative strain?”

Rudi rubbed his eyes and fiddled with the stack of beer coasters at the end of the table. He took a sip of his beer.

“Two things,” Rudi said, “one is try all the antibiotics.”

“I mean if they’ve been tried already,”

Rudi shook his head. “I don’t mean all the *approved* antibiotics. I mean *all* the antibiotics. Including the new classes.”

“I’m not sure I follow,” Frank said, “where are they? I thought the big pharmaceuticals were abandoning the business.”

“Abandoning the business is not the same as abandoning the Research. The cost of getting a drug approved is very high, but a fraction of that is the basic science,” Rudi had spread the coasters out over the top of the table, then started removing them one by one, “there are almost endless microbes, fungi in even a gram of soil. Only a tiny percentage of them have been investigated. It is a tedious job to filter out the ones which are useful. Most do nothing at all, of the remainder some can target certain bacteria, and some are hard to isolate or to reproduce sufficiently to be useful. Then once you find one which is effective, it can’t be more toxic then the bacteria it is killing. Only after you get past all these obstacles, can you begin all the trials and approvals process.”

“Suppose there is no time?” Frank asked, “It will take too long to wait for this whole process.”

“You don’t have to wait for the whole process,” Rudi smiled mischievously through his wet moustache.

“What?” Frank was not following wherever Rudi was going.

“I have a little storage facility, quite large actually, in my laboratory where I produce what I call ‘Pandora’s Poison,’” Rudi leaned forward like a little boy telling a naughty secret, “That’s what I would try.”

“You’re secretly developing new antibiotics?” Frank suddenly sat up as the waitress approached the table.

“Noch eins?” she pointed to Rudi’s near empty glass.

“Bitte, und für meinen Freund auch.”

Once the waitress had left to fetch the fresh beers, Rudi continued, “It’s not really secret. Just unofficial.”

“So Gruenlicht knows about it?”

“They know I have my little sandbox I play around in. It’s part of the deal,” Rudi smiled at the waitress as she placed the beers in front of them, “Danke schön.”

Rudi once again leaned forward, “After the company started to cut back on the active development of new antibiotics, they approached me about reducing my salary. But I knew it was just a bluff. So I bluffed back and said I was planning to retire anyway.”

“What if they’d called your bluff?” Frank asked.

Rudi shook his head again. “I knew they wanted to keep me around just as a precaution. It was a small price to pay for the insurance I would bring in case a problem came up with one of the products I’d worked on. Also to train the interns. I love working with the young people, as long as they’re not too nosy. So they said I could stay. But one of my conditions was my little sandbox. That’s where I make Pandora’s Poison.”

“You said you would try two things,” Frank said, “what’s the other?”

“Phages.”

“Bacteriophages?” Frank knew of those bacteria killing viruses, but never thought of them as viable treatments, “do they work?”

“In fact they do,” Rudi responded, “you may know they were widely studied and applied in the early twentieth century, but were mostly abandoned once antibiotics were discovered. However they continued in use in the Soviet Union, and to this day there is still a great focus on them in Georgia and some other countries. There are some difficulties in applying them, but in a situation such as you are describing it would certainly be worth investigating.”

“So how do we proceed?”

“This is not a theoretical discussion, is it?” Rudi asked.

Frank explained to Rudi the plague outbreak just beginning in New York and the evidence for resistance.

“Is there a way to test the samples of Pandora’s Poison?” Frank asked, “Could you get some to me?”

“It would not be practical since we have so many to try,” Rudi said, “it would be much easier if we had the culture to test it on. It is also a simpler matter to bring something into the lab than to take something out.”

Frank thought about how to manage that. It would be difficult to circumvent the normal security protocols and simply move such a lethal agent from the CDC laboratory. The current circumstances did however present that opportunity since it could be argued it would be necessary to bring the culture in Atlanta together with the one in New York to compare them, though it would be quite a bureaucratic hurdle to gain approval for transferring the pathogens to a private corporation.

After Rudi dropped him off at the train station to return to New York, Frank called Catsi to discuss the feasibility of transferring a sample of the culture to New York. They both agreed obtaining approval would take some time. Frank decided to approach Jane Simmons about transferring a sample in the other direction. In his conversation with Catsi, Frank did learn that the DNA profiles of both Jim and Mike Carter contained both pairs of the alleles for the genes he had asked him to check for, most likely conferring upon them immunity from the plague bacteria.

As he stood waiting for his train, Frank watched a rat scurry along the rail tracks in search of scraps. He had seen them many times doing the same thing on the tracks of the New York Subway System.

Mike had been released from quarantine at the same time the tenants of his building were also cleared of infection and given permission to return to the tenement. But when he arrived back in New York he noticed a marked difference in the atmosphere of the city. With the new cases in Chinatown, the Mayor had finally agreed to a press conference in which he formally acknowledged the plague outbreak. He closed Coleman Oval and Corleone Parks and declared a ‘War on Rats.’ The news conference did not specifically mention the fact that the strain exhibited resistance, though it did warn it was a potentially quite virulent type of plague and advised residents to limit unnecessary congregation in public places as much as possible. There had been a run on face masks which Mike saw were being worn throughout the city. The local newspapers posted dramatic headlines showing photos of dead rats with references to the Black Death. When he arrived at his building there were several television crews outside reporting from ‘The Source of the Scourge.’ He tried to brush past them, but his neighbor Wally, who had been so proud of Mike’s reserve duty, pointed him out and yelled.

“He’s the one. He brought it here.”

The reporters ran up the steps after him.

“Excuse me, are you Michael Carter from apartment 2C?”

“He is,” Wally yelled, “he started everything.”

Mike managed to push inside the building where the reporters would not follow, but when he got to his apartment he saw that someone had painted ‘DEATH’ in red letters across the replacement door for the one the FBI had broken down when they retrieved Beth’s body. He was simply glared at by most of the other tenants who were busy throwing out the food which had spoiled in their refrigerators and running fans to remove the fumigant smells. Only Mrs. Arley, the kindly old lady living next door, came to express sympathy.

“I’m so sorry about your girlfriend,” she said before looking around, “it might not be too safe for you here, though. That Wally has been agitating with the other tenants. If you have another place you can go, that might be a good idea/”

Inside the apartment he looked at the bed where Beth’s blanket still lay. It was one she had knitted for him when they were still together, and they used to share it when she still lived in the apartment. He was rolling up the sleeping bag next to Tyke’s bowl when his phone rang.

“Hi, Mike,” it was his manager, Emily from work, “I’m so sorry to hear about what happened to you.”

“Oh thanks, nice to hear from you. It’s pretty crazy here.”

“I can imagine, listen Mike, about the leave,” Emily said.

“Oh, the reserve duty was cancelled because of all this,” Mike reassured her, “I can come in tomorrow.”

“That’s not really what I meant,” she said, “HR thinks it best if you stay away from the office in light of the whole situation.”

“I see, well I can work from here I guess.”

“No, you won’t be able to,” she sounded embarrassed, “it’s being processed as a leave, so your remote access has been disabled.”

“For how long?” he asked.

“At the moment it’s indefinite, but pay has been approved for three months, so don’t worry about that.”

It was only when the call ended that he noticed a chant coming from the street. He could not make it out at first, but it was steadily growing louder. He stepped close to his kitchen window to listen better.

“Black Death Mike!” the crowd was yelling.

He peeked between the curtains to see people he did not know as well as his neighbors taking part in the chant. Some of them were even banging on the side of the building beneath his second story window. He also heard police sirens and a loudspeaker ordering the mob to allow them through.

Mike hurried to his front door to put the reinforced metal bar against it, but that had been bent out of shape when the FBI broke into the apartment. While he was searching for another barrier, the door shook from a loud bang.

“Mr. Carter? This is the police, would you please let us in?”

As the replacement door did not have a peep hole to allow Mike to confirm who it was, he hesitated for a moment until the kitchen window was shattered by a can of rat poison. Mike quickly opened the front door to face riot policemen. Under the normal protective face shields they also wore surgical masks.

“You’d better come with us,” one of them said, “for your own protection.”

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By the time Frank reached Bellevue, the two surviving Chinatown victims were in critical condition. The third one had died before he could be transferred from New York Downtown Hospital. It turned out the three were illegally in the United States and lived in a small room in a tenement with as many as twenty others. No one knew the exact count, as they slept in rotating shifts, sharing the same beds. The location of the room was near the notorious Bloody Angle of Doyers Street. A century ago this was the scene of more homicides than any other street in New York City as gangs liked to position themselves at the bend where they could get clear shots in either direction, toward Pell Street or the Bowery. They could then escape through the maze of subterranean tunnels which connected the buildings. It was not far from the infamous Five Points slum where poverty bred vicious gangs in each ethnic group which moved through the area, starting with the Irish in the mid nineteenth century. The violent gangs were largely gone now, and Chinatown was of course a popular tourist destination and favorite spot for New Yorkers to eat.

When the three victims had been evacuated, a few others who happened to be in the apartment were also taken into custody. Frank was worried that other residents had scattered on seeing the activity. He knew many of the illegals worked in restaurants in the area, presenting another avenue for the outbreak to spread.

“All pneumonic,” Jane Simmons said to Frank as they looked down at the latest victims, “now it is just beginning.”

“Are any new health precautions being put in place?” He asked.

“Polopoff is finally starting to move now, he has to. They are acting very aggressively against the rats, but I’m afraid it’s already beyond that.”

“Yes, since it has gone pneumonic.”

“I don’t know why you guys are still collecting them,” Jane said.

“What do you mean?”

“We saw those trucks picking up the rat cages by Coleman Oval,” Jane answered, “they were all dressed in white and were definitely not from the city.”

“We’re not picking anything up,” Frank replied, “did they have CDC insignia?”

“No, but we thought that was to avoid raising alarm. So who were they?”

As they stood silently reflecting on who might collecting the rats, Frank could hear Jane’s cell phone vibrating in her pocket. They left the quarantine section and after removing the protective suits she looked at her phone.

“There are four more possible cases reported,” she said, “one of them is in Brooklyn.”

“Will they all be brought here?” Frank asked.

“So far that has been the procedure,” she answered, “but if the epidemic continues to grow at this rate, we will have to set up local processing. I’m not sure what else to do.”

“One way or another they will not likely need to be isolated more than a week,” Frank said, “If they don’t recover they’ll be dead within four days. If they do recover, they’ll be immune, and their bodies will be rid of the bacteria. You should be thinking more about disposing the dead.”

“These ones have no one to claim them,” Jane said, “so they’ll be going to Hart Island.”

Where Plum Island’s focus is on living organisms, Hart Island is devoted to the dead. It has served as a Civil War prison, a psychiatric ward, a tuberculosis sanatorium and a boys’ reformatory. It, along with other small islands in New York, was used to quarantine people during epidemics. It was also used as a base for Nike anti-aircraft missiles during the cold war. But the island now contained the largest tax funded cemetery in the world, serving as New York’s potter’s field. It is not necessarily intended for indigent homeless people or unknown bodies, but for anyone who cannot afford a burial. The bodies are catalogued and their locations recorded in case they are eventually claimed, but also to allow the bodies to be exhumed if required by an investigation. They are buried by inmates from Rikers Island prison who are paid fifty cents an hour. Frank wondered if they would be able to keep up with the rate of new arrivals and how long the inmates would be willing to handle the corpses once they learned of the nature of the disease.

“How many more antibiotics do you have left to try?” Jane asked Frank.

The question gave Frank the opportunity he was looking for, “Not many, and none are in new classes, but there is something else I want to try. There are some experimental variations which are not yet approved. We would like to try them on the culture.”

“Seems like there’s nothing to lose,” she said.

“Yes, I agree,” Frank continued, “and it would help if you could release some of the culture you have for testing.”

“Don’t you have enough?”

“It’s not that,” Frank explained, “it’s just a matter of protocol since what you have actually comes from where the plague is worst.”

Jane shrugged her shoulders, “where do I release them to?”

“You can give them to me, on behalf of the CDC.”

As Jane was starting on the paper work for the release, Frank’s phone rang.

After a short conversation, he hung up and turned to Jane, “Mike Carter has just been brought to a police station for his own protection. It seems a mob was gathering outside his building. He is asking if I could help him find someplace to stay.”

“Isn’t he one of the ones who has acquired immunity?” Jane asked, “Bring him here.”

“What are you thinking?” Frank asked.

“I want to transfuse some of Mike Carter’s blood into a plague patient,” she answered.

“There are all sorts of issues with trying that,” Frank said warily.

“I know,” Jane continued to fill out the paperwork for the culture release as she explained her idea, “it is of course not the solution to the entire plague epidemic, and there are immune response dangers, but if a patient is going to die otherwise, maybe Mike’s antigens will help keep him alive long enough for his own body’s response to take over. Of course we will have to make sure the blood types are compatible.”

Frank was impressed with the creativity of Jane’s thinking, but not very optimistic. The two patients in the next room would likely die no matter what, but it was worth a try for the next arrivals. The main risk was that there was always a chance they could fight off the infection themselves, and in that case the transfusion might undermine that fight as their bodies reacted to the foreign blood.

In the meantime he had to work out a cover for diverting to Rudi Klarkopf the culture sample which Jane was preparing. He would need to arrange for a non-commercial transport to Atlanta, and it had to be accompanied by a CDC official, but Frank could not spare the time away from New York. He would also have to prepare a dummy package for the plane while passing the real one to Rudi. Frank asked Catsi to fly up that evening. He could then return to Atlanta with the special transport and dummy package.

When Frank checked the headlines on his smartphone, he saw that the epidemic had now become national news. Airlines were cancelling flights to the New York area airports and there was talk of what to do about the rail and road links. This would of course precipitate a rush to get out of the city by those who had someplace to go. But most New Yorkers would not have the luxury of abandoning their jobs and homes and relocating their families. Sealing off access to Manhattan was not practical either because of the enormous daily commuter population of one and a half million. Those who could, might work from home and would be encouraged to do so by the city. So vigilance and extra precautions would likely be the only steps possible until a proper treatment were found.

He knew both from his own experience and from the scientific literature which he had read, just how rapidly an epidemic like this could accelerate. In fact the annual flu season was a perfect illustration of how quickly and thoroughly a respiratory pandemic could spread around the world. In the case of annual flu however, the illness was a mere annoyance, but there was a rough parallel in the Spanish flu epidemic of nineteen eighteen which infected five hundred million people around the world and killed from fifty to one hundred million. In the case of this modern plague epidemic however, the infection rate would likely be even higher because of increased ease of international travel, and the total infections could be extrapolated from a population of less than two billion in nineteen eighteen to over seven billion currently to a total infection count in excess of at least two billion. The percentage of fatalities could also be expected to be reversed. Instead of ten percent dying, at most ten percent would survive, leaving by those calculations one billion eight hundred million dead.

Frank thought those figures were optimistic as it predicted the pandemic would only reach a quarter of the world population, while it seemed much more realistic that almost the entire human population would be exposed, which would lead to the staggering projection of over six billion deaths. This would be a death rate comparable to the medieval plague epidemics of the pre-antibiotic era.

Both of the intended recipients of his blood were dead before Mike arrived at Bellevue, but overnight nine more cases were reported. Two of them were brought directly to Bellevue while the others arrived at different local hospitals. Frank and Jane discussed the viability of trying the blood transfusion.

“What worries me is if they don’t have plague,” Frank said, “and their reaction to the transfusion will just stress their systems even more.”

“I agree,” Jane said, “we should wait until tests confirm it is plague first. But what then? If we wait until their condition worsens, it might be too late.”

“And there is the chance they recover on their own,” Frank said.

“It hasn’t happened yet,” Jane pointed out.

They finally agreed that as soon as a patient was confirmed to have symptoms, and a Yersinia pestis infection, they would be given the transfusion. Mike had already consented and was being prepped to extract his blood. His type had been determined to be type O, the universal donor, so rejection issues were expected to be minimal. In the meantime, Jane provided Frank with the plague culture and an FBI car drove him to Newark Airport where Catsi was waiting.

“How’s it going boss?” Catsi asked Frank.

“Pretty hectic,” Frank handed him the package, “I wish I could go back with it. You know what to do with it, right?”

Catsi nodded, “Just store it for now,” he winked.

Frank asked the driver to drop him off at the train station, from where he called Rudi and arranged to be picked up in Edison.

“Herr Doktor,” Frank saluted as he got into the car next to Rudi.

Frank removed from his shoulder bag an insulated package which was identical to the one he had given Catsi, except this one contained the plague culture. The one Catsi had received contained the elk and bison jerky Frank had bought in Arizona to be analyzed for the presence of antibiotics.

“I was thinking of bringing you in to see the lab,” Rudi placed the package in a bag from a Chinese restaurant, “but it might trigger a security reaction. They’re used to me bringing back my lunch.”

“Where do we go from here?” Frank asked.

“First we have to grow more of this,” Rudi held up the bag containing the plague culture.

“I hope it moves quickly,” Frank said, “we don’t seem to have any other options.”

“Well, Yersinia pestis is a slow replicator, but we have learned a few tricks about accelerating growth. In the meantime, see if you can do something with this,” Rudi passed Frank a bag which contained a lunch thermos with a picture of Mickey Mouse on it. He showed Frank a label stuck to the bottom with a link to a website written on it.

“I’m guessing this is not Weissbier,” Frank put the thermos in his bag.

“No, you don’t want to drink that,” Rudi said, “though it could clear up any diarrhea you might have. It’s full of bacteriophages. The link will explain how to use it, though it can simply be passed through an IV. Even drinking it will probably work. The password to the web site is the number of home runs Hank Aaron hit plus the number of strikeouts Nolan Ryan got.”

Frank smiled, “I never understood how an old world guy like you got so into baseball.”

“Anticipating this moment,” Rudi turned the key in the ignition as Frank opened the door to leave.

“There’s no guarantee of course,” Rudi said, “that soup you have was effective in the lab against similar bacteria, but we weren’t able to try it against plague.”

“I hope you are not putting yourself too much at risk by doing this,” Frank said.

“We know from experience that the official route is slow, with no guarantee,” Rudi said, “I’m not going to repeat the same mistake I made with Molly with the whole world at stake.”

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The passive immunity acquired through a whole blood transfusion is the same as the immunity a new born baby receives from its mother in which the protection is temporarily conferred by the mother’s antibodies which had passed through the placenta. Once the baby’s own body produces its own antibodies, any immunity acquired will be permanent. Though Mike and his cousin Jim had a natural immunity to plague, it wasn’t the same as the immunity acquired through exposure when the body creates sentinel antibody scouts allowing it to react quickly if it is ever infected again with the same organism. The genetic mutations they had inherited actually blocked the normal path the bacteria took to replicate and kill their cells. But there was a brief window when they were first infected where the body did produce the antibodies. This is the same process which occurs during vaccination when a dead or attenuated microbe unable to cause an infection is injected into the body. It was these antibodies which Jane hoped would pass from Mike to the patient. Since there is a gap of weeks required before a donor can provide a second transfusion, Jane knew this was not a long term plan to fight the epidemic. Still it might lead the way to other treatments, perhaps by developing a method to extract the antibodies from the blood of an immune person.

By the time Frank returned to Bellevue, the presence of Yersinia pestis had been confirmed in the latest patients. The blood for transfusion had already been extracted from Mike, who lay a little groggy on a mobile cot munching cookies and drinking orange juice.

“How was it?” Frank asked.

“I wouldn’t do it for fun,” he answered, “but it’s better than being trapped in a building by a mob.”

Jane walked slowly into the room with strands of her uncharacteristically unkempt hair sticking to her forehead.

“I just infused the blood into the two patients,” she said, flopping into a stool, “now it’s wait and see. I wish we had twenty-two Mikes. That’s how many new cases were admitted yesterday. We would run out of room for them if they didn’t die so fast.”

“Are you all right?” Frank noticed a drop of sweat running down from her hairline and her speech seemed slurred.

“I’ve been up all night,” she let out her breath, “I may grab that cot when Mike is done with it.”

“You’ve got a fever,” Frank felt her brow, then her neck lymph nodes, “you need to be isolated right away.”

Jane consented, and with the help of her staff, was put in isolation and had blood drawn to analyze for Yersinia pestis.

“Mike, where does Jim live?” Frank asked.

“In Princeton,” Mike answered from the corner of the cot.

“Can you try to call him?” Frank was putting on the protective suit, “we need him here as soon as possible.”

“Jane,” Frank tapped her on the shoulder, “while you are still lucid, I’d like your permission to accept a transfusion.”

She shook her head and opened her eyes weakly, “Mike can’t give any more.”

“Not from him, but from his cousin, Jim.”

“How are the other patients?” she sounded like she was about to fall asleep.

“It’s too early to tell,” Frank said, “but they are not any worse. Will you give your permission?”

When she nodded and whispered ‘Yes,’ Frank looked at the other physicians in the room who confirmed they had witnessed her assent.

“And one other thing I want to try,” Mike said as she opened her eyes when he shook her again, “phages.”

“Where did you get that gunk?” she asked.

“I can tell you later,” he said, “do you consent?”

“Sure, try whatever you want,” she said, “as long as you promise you’ll be able to explain it to me later. And that I’ll be alive to hear that explanation.”

Bacteriophages are everywhere. They especially abound in dirty water and even in common sea water where they prey on the abundant bacteria. They thrive wherever there are bacteria, including intestines. During the decades they have been used in Eastern Europe there have been virtually no incidents reported where their use has resulted in serious complications. Bacteria also develop resistance to phages at a much slower rate than to antibiotics. They are so common that people in effect have been ingesting them forever. The key to treatment is to identify the phages which target a specific pathogen and treat it with that strain.

Frank still regarded phages as an outside bet, knowing that research had been limited, but he saw little choice at this point since antibiotics were not an option. He wasn’t sure if they would work in time or even work at all. But since, unlike the other patients, Jane was just beginning to show symptoms, perhaps they would make the difference. He knew that if they worked, he would have a lot of explaining to do about where he got them and why he broke protocol regarding approval. Rudi would have even more explaining to do since he had sneaked them out of his laboratory. Now Jane had joined the ‘wait and see’ Club.

But Frank was having trouble waiting and seeing. He tried reviewing the details of the cases which had so far been admitted and treated with largely dismal results, and his mind returned to Jane. He reviewed the theory of how phages work, and tried to immerse himself in the technical details, but still his mind returned to Jane. This pattern repeated itself as he sought complex technical analyses to immerse himself in. Whether it be the mechanism of the development of resistance, the probability of an individual fighting off an infection without treatment, or the outside chance an antibiotic might be found which would be effective against the plague, Frank’s analyses were always interrupted by the thought that Jane was in the next room, fighting for her life while he could do nothing but sit and wait and hope the treatment he had chosen might work. He had not felt that way since watching his wife Molly die.

“You know who I killed?” the older inmate asked as their boat rolled with the waves.

“Nobody,” Jesse answered, “otherwise you wouldn’t be here.”

“Why wouldn’t I be here?” Virgilio asked.

“Because you’d be sent to a real prison already,” Jesse looked straight ahead. “Rikers Island is just for holding or short timers.”

Bull, on the other side of Jesse emitted a snorty laugh. Virgilio scowled at him.

“Maybe I killed someone, but they can’t prove it,” Virgilio said.

“Am I hearing a confession?” Jesse responded.

“Maybe I killed somebody, and maybe I didn’t,” Virgilio continued, pointing to Hart Island off the bow of the boat, “but I buried a lot of people.”

“How many people you buried?” Bull asked thickly through his fat lips, his finger in his nose.

“He didn’t bury any people,” Jesse said.

“What do you think I’ve been doing coming out here the last year?” Virgilio growled, “I must have put a thousand of those pine coffins in the ground.”

“Wood boxes ain’t people,” Jesse said.

“Well what do you think was inside them boxes?”

“Dead bodies,” Jesse replied matter-of-factly.

“Then how can you say I didn’t bury any people?” Virgilio turned his palms toward the sky.

“Once they’re dead, they’re not people any more.”

Virgilio scowled at Jesse, “Keep up with the wise cracks and I’ll be burying an extra one today.”

“I buried three people,” Bull said thoughtfully, stroking his chin with a huge hand.

Jesse and Virgilio exchanged a glance.

“I know they wasn’t dead cause’ they was moving when I buried em’.”

The boat rolled up and down as it passed through the wake of a ship.

“I think I’m gonna puke,” Jesse hung his head. His two companions slid farther from him on the bench, “is it always this rough?”

“Take deep breaths, Kid,” Virgilio patted Jesse’s back, “you’ll get used to it.”

“How long does it take to get used to the waves?” Jesse asked weakly.

“You never get used to the waves,” Virgilio answered, “you get used to puking.”

Jesse rested his forehead on the cool rail.

Again Virgilio patted his back, “Hold on, we’re almost at the dock. Breakfast never tastes as good coming up as it did going down.”

As the side of the boat bumped against the tires hanging off the pier, a large black man smiled at them, “welcome to San Michele.”

“I thought this was Hart Island,” Jesse said as his colleagues steadied him to disembark.

“Larry likes to call it the name of the cemetery island of Venice,” Virgilio pulled Jesse out of the boat as Bull pushed his backside, “makes it seem more sophisticated.”

On the other side of the dock there was some confusion regarding the load of bodies which had just arrived.

“How can one be missing?” the man receiving them asked, “Your own invoice says seven, but we only unloaded six.”

“Hope your stomach’s settled, Kid,” Virgilio said, “your first day is gonna be a tough one.”

“Why do you say that?” Jesse asked.

“See those body bags?” Virgilio pointed to the stack in the back of the truck, “the way they’re extra wrapped and sealed? They died of the plague. We need to bury them fourteen feet deep.”

Brooke Daniels had been a minor reporter dying to make a name for herself on the ‘New York Shout’ for over a year. The New York Shout was in turn a minor newspaper trying to make a name for itself. It was the only job she could find with her Associates Degree in Sociology, but she was enthusiastic at first. She did not mind being sent for coffee and lunch, even if she had to bug everybody to chip in more for the tip. She was in journalism after all, and had to start at the bottom. Someday she would be a savvy street reporter like Libby and those other middle aged pierced gothic types who got the good stories or those older balding hippies who did the editing. She was happy to pay her dues and work her way up. At least she was happy for the first three months. Then all at once she got sick of it.

“Freddy?” she tapped on the door of the editor’s office and peeked in when it swung open. There was some noisy bustling before Libby hurriedly came from somewhere on or near his desk, reinserting her tongue stud which for some reason had come undone.

“Brooke, come in,” Freddy adjusted that strange blend of shoulder length hair and comb over which he almost managed to make work, “we were just talking about you.”

“Oh, about what?” she asked sincerely.

“Uh, just what a good worker you are,” he answered quickly.

“Really?” Brooke saw her chance,” I’m glad, because I think I could do a lot more. I was hired as a reporter, you know.”

“You don’t need to tell me that,” Freddy interwove his fingers and leaned forward to meet her gaze, though his eyes kept darting about the room to make sure nothing was out of place, “I think I hired you. Sociology, right? I need you to report on a story. Can you make it to Morningside Heights this afternoon?”

And so began Brooke’s role as the LGBT reporter for the New York Shout. Brooke had bragged during her interview that her sociology degree focused on LGBT issues. And it was true. She wrote papers and did research and attended conferences on LGBT affairs, so she was the perfect candidate to send to every parade or traditional celebration which always had LGBT representation. And she loved it at first, being the mouthpiece for this minority group after years of suppression. She did a good job too, and showed she was a good reporter. She did in fact get more stories, but they were always LGBT stories. And when she wasn’t reporting she was still the office gopher since she was ‘the kid.’

But eventually she got sick of being the LGBT reporter. Each parade followed the same old pattern. In fact it was often the same people. The same lesbian couple marched in the Irish, Italian and German parades. The story was more or less repeated, how after years of oppression, they were finally recognized, but more needed to be done, et cetera. She wanted something else, even a group for a different sexual preference to break the monotony. How about those who like fat lips, or unibrows or large bottoms or nose hairs, anything different. So she went to talk to Freddy again, and what did she get? The Staten Island Dump. Staten Island itself was a dump, a boring piece of Ohio plopped down off the coast of New Jersey which somehow became part of New York City. And the people who lived there were so pathetically desperate for an identity that there were signs like ‘The Best Brooklyn Style Italian Bread in Staten Island.' Oh yeah? If it was so great why wasn’t there a Staten Island Iced Tea?

So there she was standing on top of the biggest landfill in the world because somebody had seen a dump truck and some smoke on top of it. She parked her car near a shed from which a young man of indeterminable ethnicity with green hair and a nose ring peeked out. He looked upset to see her.

“What you doing here honey?” he asked.

“I’m a reporter,” she showed him the laminated card which the New York Shout had given her as a credential.

“You’re not allowed up here.” He stood akimbo in his pink jeans, eyeing her up and down.

She always wore a low cut halter in case it might get her past guards, but her time on the LGBT circuit taught her it would be pointless with this guy, “I’m here to report, you can’t stop me.”

“I’m not supposed to let anybody by,” he insisted, but she sensed a waver in his voice.

“Haven’t you ever heard of the Fifth Amendment?” she was not sure she had the right number, “You’ll be breaking the constitution if you stop me.”

He seemed to be thinking he was not getting paid enough to risk a federal penitentiary.

“Okay, you go on by, but don’t be long,” he waved her past.

She could see that the berm, sealed for the last fifteen years, had a new opening dug into the top of it. Near that opening two men in white hazmat suits were standing looking at the far end of the pit where a truck sized structure with a smoke stack was releasing a slight stream of white vapor. They were so transfixed at what they were watching that they didn’t notice her until she walked right up behind them and spoke.

“Are you guys with the city?” she asked.

They jumped at the sound of her voice and turned toward her.

“How did you get up here?” One of the men lifted his protective gas mask to talk to her. “You’re not authorized to be here.”

She flashed the press card again, “I have fifth amendment rights.”

“The right to remain silent?” one asked, “I wish you’d exercise it.”

The two laughed, and Brooke joined them, lightening the atmosphere, “Come on guys, what’s going on here?”

“What does it look like?” he answered, “Burning bodies.”

Brooke laughed again, but the men did not. When she looked more carefully she saw that other men on the far side of the pit were carrying bags from a truck and placing them into the smoking structure, which had written on the side ‘All Gone Incinerators.’ She stepped forward to get a better look.

“You don’t want to go down there,” one said.

“That’s the devil’s ash hole,” said the other, at which they both once again laughed.

When she ignored them and took another step closer, one of them grabbed her arm, “You need to leave now,” he said. He was not laughing.

From the top of the berm Brooke could see the now empty truck was descending to a pier. She hurried to her car to drive down to the location where the truck was heading. There she found a dilapidated fence which had apparently once restricted access to the area, but was now broken and not guarded. As she was watching, Brooke saw the truck, which had unloaded the bags, appear from a service road leading down from the top of the berm. It pulled up to what looked like a roofed barge with a container in it. The driver got out of the truck to help two other men carry what appeared to be body bags from the barge and place them in the truck. Everybody was wearing a protective hazmat type suit. Once the truck was full, it drove back up the service road. The barge, apparently now empty, left the dock and headed toward Manhattan. She noticed there were four additional incinerators, apparently not yet in operation, standing near the dock. A rather hefty fellow with a bushy red beard stayed behind. He pulled off his protective visor and lit a cigarette.

“Hey there,” Brooke walked up to the man, her light jacket open. The low cut top would have a better chance with this guy, “how about a smoke?”

He looked at her, slightly bewildered, “Uh no thanks, I already got one,” he held his cigarette up.

“I mean for me, silly.”

“Oh, sure ma’am,” he fumbled to pull his cigarette pack out of his protective suit.

“Brooke, call me Brooke,” she leaned forward to let him give her a light, “What’s your name?”

“Jake,” he said, “Jake Collins.”

“Jake Collins?” she rubbed her chin pensively, “you’re a musician, aren’t you?”

“How’d you know?” his face lit up.

“There was some place I saw a band, I think it was in the East Village, right?”

“The Dump!” he said, then looked around, “Appropriate, I guess.”

“Yeah, you played the . . .” Brooke pointed at him as though trying to remember.

“The bass.” Jake said, “I’m a bass player.”

“Yeah, that was it,” Brooke had never seen him before. She had just guessed musician. If he had said no, she would have tried artist, magician, banker, waiter, something to make a connection. She looked around them, “Weird place to be moonlighting.”

“Yeah, music doesn’t pay.”

“So you unload those boats?” she asked.

He looked at her a bit warily, “I don’t think you’re allowed here.”

“Oh, sorry,” she said, “I was looking for the ferry. I saw that boat leaving.”

“You want Saint George,” he said, “over that way.”

“Thanks, hey, I’m actually a reporter for the New York Shout.” she waited for recognition, but he just shook his head ignorantly, “I’m starting a new column about the social scene.”

“You are?”

“Yeah, you playing anywhere this week?”

“Yeah,” he said eagerly, “The Bridge.”

“The Bridge,” she feigned recognition, “Upper West Side, right?”

“Manhattan Bridge,” he said.

“Oh that one,” she quickly said, “When’s the gig?”

“Tomorrow at nine,” he said. He looked up the road toward the top of the berm from where the sound of the approaching truck could be heard, “you better go now.”

“See you there,” she pointed at him and winked before trotting back to her car.

Two days after Rudi Klarkopf received the Yersinia pestis culture from Frank he had multiplied it sufficiently to allow him to start testing his Pandora’s Poisons on it. He now had to decide the best approach for attacking the bacteria. In the sandbox which Gruenlicht had granted Rudi to play in, he dabbled in bacteriophage therapy, but his main preoccupation was tweaking existing antibiotics synthetically as well as trying to isolate new strains from the environment. He always had at least three interns working for him to whom he could delegate the grunt work of testing his creations on a variety of pathogens. But far from it being a tedious task for the interns, an assistantship to Doctor Klarkopf was a much sought after assignment. His enthusiasm and willingness to do whatever was needed plus the fact that his department was the purest research and development, meant the work was fun, interesting science and almost devoid of the kind of stress which was common in the production environments.

Still, when Rudi had all his assistants drop whatever they were doing and start on the new project, they sensed there was something special about this effort. Unfortunately, because of the virulent and untreatable nature of the ‘Grand Canyon Plague’, as Rudi referred to it in his notes, he would not be willing to allow the other staff members any contact with the culture. Thus they mainly focused on preparing batches of Rudi’s existing ‘poisons’ and to some extent helping him synthesize new variations on those antibiotics which he had already created. This left the tedious work to Rudi, which if the situation had not been so urgent, would not have bothered him in the least. This separation of concerns also enabled Rudi to prevent his bright assistants from examining the microbe and realizing they were dealing with plague.

There are two main classifications of antibiotics, bactericides which are intended to kill the bacteria directly and bacteriostatics which stop them from dividing. From what Frank had told him, Rudi knew the plague strain had shown resistance to the indicated antibiotics for treating the disease across both of these categories. Streptomycin, gentamicin, doxycycline, levofloxacin, moxifloxacin and trimethoprim-sulfamethoxazole were the first to be tried and eliminated. After that, the CDC had worked its way through the second-line antibiotics but had yet to find one to which this particular strain was vulnerable.

Each of these antibiotics was grouped into classes which generally worked the same way, but there were nuances among them which also allowed each to be most effective against a particular bacteria. Some antibiotic groups such as beta-lactam antibiotics targeted the peptidoglycan cell membrane, but since Yersinia pestis was gram-negative, it was protected by an additional outer membrane containing lipopolysaccharides, which rendered these drugs useless, so Rudi discarded them. Instead there were others which would first act as a detergent against the outer membrane, and then disrupt the inner membrane. Rudi needed to see in what way the Grand Canyon Plague had evolved protection against these attacks.

There were also the bacteriostatic drugs to investigate which did not kill the cells outright but rather interfered with the synthesis of various proteins in different ways, thus rendering the cell incapable of replicating. And there were also many more mechanisms by which the drugs fought bacteria. Since resistance could only develop through exposure to existing treatments, Rudi needed to find a drug which would be effective against gram-negative bacteria, but in a novel way. This had been precisely the focus of his Pandora’s Poison hobby, in which he was anticipating the eventual inefficacy of existing antibiotics. Indeed this had been the antibiotic strategy of the major pharmaceuticals for decades until it no longer made business sense to continue pursuing antibiotic development.

Bacteriophage therapy was the second front on which Rudi sought to engage Yersinia pestis. The phage mechanism for attacking bacteria was to attach to a specific protein on the surface of the target and inject genetic material into the bacteria much like a syringe. Since each type of bacteriophage attaches to a specific protein, they target only certain bacteria. Once inside the bacteria, the genetic material replicates and new phages bud from the infected bacteria and go on to infect more cells. It was therefore necessary to find a phage which could infect the target bacteria. Since Rudi did not have any Yersinia pestis in his laboratory when Frank contacted him, he gave Frank a cocktail of bacteriophages which targeted bacteria with a similar membrane structure and passed this to Frank to try. Now that he actually had the bacteria, he could attempt to isolate specific phages which might be most effective.

While Rudi was studying the culture Frank had given him, Frank was monitoring both Jane and the other two patients who had received transfusions of Mike’s blood. He had also assumed much of the day to day responsibility for managing the epidemic. The number of cases continued to grow and spread beyond New York City. In nine out of ten cases the patients succumbed to the disease within a few days of being admitted to a hospital. There were however, a few who would become ill but then recover. Frank sent instructions that the patients who recovered should be screened for the same genetic mutations which rendered Mike and his cousin Jim immune to the plague. If they had only one of the alleles, they might not be immune, but just resistant, in which case they may present with a mild form of the disease and then recover on their own. Those with complete immunity would remain anonymous as they would never even complain of an infection. There would also be a lucky few who, even without the genetic resistance, would manage to fight off the infection themselves. Regardless of how a patient survived the infection, he would then be immune for life and carry the same antigens which Frank and Jane had hoped would be transferred to the sick patients through the transfusion of Mike’s blood.

“How is she doing?” Frank looked down at Jane’s wan face with two of her staff.

“She’s still pretty bad, but her condition seems to have levelled out,” one of the doctors, Yuri, said, “maybe the phages are working.”

They all knew there was usually an inexorable deterioration once plague patients had been admitted, though in Jane’s case they were able to intercede much earlier in the progression of the disease.

“How are the two doing who received transfusions?” Frank asked.

“One has stabilized, but is still critical,” Yuri answered, “the other continues to deteriorate.”

“I want to prepare Doctor Simmons for a transfusion,” Frank said. Mike’s brother, Jim had arrived and been determined to also be type O. But as Frank spoke, Jane’s hand rose slowly from the bed, and she shook her head. Frank leaned over her.

“Did you understand me?” he asked. She nodded.

“We want to give you a transfusion from Mike’s cousin Jim,” he said.

Again she shook her head and opened her mouth to speak in a weak voice, “No, I don’t want it. Feeling better.”

“Your condition does seem to have stabilized since we gave you the phages,” Frank said, “but it might not be enough.”

Again Jane shook her head, “just the phages, so we know if it works.”

Frank looked at the staff. Jane was risking her life so they would be able to tell if the phage therapy by itself worked. He walked out of the isolation area to where Mike and Jim were waiting.

“Sorry to have drained you unnecessarily,” he said to Jim, “but Doctor Simmons wants to give the phages a chance to work.”

“So it’s wasted?” Jim tried to sit up, but the dizziness caused him to flop back onto the cot.

“Not at all,” Frank answered, “we can keep your blood viable for a couple of weeks. It won’t go to waste. Mike’s seems to have saved one life, and there were over forty new cases in the city today.”

Mike sighed, “I wish I had more blood to give.”

“You’re off the hook for now,” Frank said, “you won’t be able to donate again for a couple of months. Just take it easy. You can stay here as long as you want.”

“Thanks,” Mike stood up slowly, “but, I’m going stir crazy. I need to check out.”

“Do you think it will be safe to go back to your apartment?” Frank asked.

“Probably not,” he answered, “that’s why I’m going down to Princeton with Jim.”

“I can understand you wanting to get out of here,” Frank looked at Jim, still wobbly from the transfusion, “better stay another twenty-four hours though, so you get your legs under you.”

With the prospect of being able to treat the plague through phage therapy, Frank now tried to think of a way to announce the progress while not revealing that Rudi had passed the medium without Gruenlicht’s permission. As bad as that would be for Rudi, his having sneaked the plague bacteria into the lab would be seen as a far more serious breach of protocol, exposing him to dismissal from the lab if not to criminal proceedings. The choice of the time and place to announce the transfusion treatment however, would soon be made for Frank.

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When Frank entered Jane’s room the next morning, she was sitting up in her bed and eating breakfast. She smiled at him as he entered the room.

“Looks like it’s working,” Frank smiled back as he checked her vitals, “how do you feel?”

Jane swallowed and raised her eyebrows, “Well, I can’t recommend the plague, but if you’re going to get it, this is not a bad ending. How is the transfusion patient?”

“I think she’s turned the corner,” he said, “but she has a ways to go. She has some acral necrosis on her fingertips. We’ll have to see how much function we can restore.”

Jane nodded and sipped her coffee, “I think you owe me an explanation,” she said.

Without revealing Rudi’s name, Frank explained how the test batch of bacteriophages had been secreted out of a major pharmaceutical.

“Well I can’t say I’m sorry you did it, but couldn’t it have been carried out more formally?” Jane opened her laptop and logged into the hospital network as she spoke.

“You know how FDA bureaucracy works. Even if it was proven effective, there would need to be trials,” Frank answered, “and this was just a shot in the dark.”

“A pretty good shot,” she said, “your friend must be a brilliant guy.”

Frank nodded, “He felt he owed it to me as well.”

“So now that we know it works,” Jane said, “we need to make it accessible and ramp up production.”

“Yes,” Frank agreed, “I’m planning to meet Rudi this afternoon to discuss how he wants to do that.”

“It can’t be too soon,” Jane turned the laptop screen toward Frank to show him that in the last twenty-four hours, one hundred seventy-three suspected new cases had been admitted to New York City hospitals. Cases had also been reported in Philadelphia and Boston as well as Washington DC.

Since rush hour had already passed, Frank decided to not use the train, but go down to Gruenlicht by car and meet Rudi. Through a rather cryptic text Rudi had indicated that while he continued to work on discovering an antibiotic which would be effective against the Grand Canyon Plague, he had isolated the important phage in the concoction he had passed to Frank. His intention was to pass him another batch of just the isolated phage when they met that afternoon. Frank was eating a quick breakfast in the hospital cafeteria before leaving when a news report came on the television showing a reporter interviewing the ‘lucky survivors.’

“Here we have another of the fortunate few,” the pretty reporter stood next to a man in a hospital bed trying to make his unwashed hair more presentable, “Jeremy Holzbein was admitted to the hospital in critical condition just three days ago, and is now one of the five percent who have contracted plague and recovered. How do you feel now Jeremy?”

“Just lucky to be alive,” he responded, “a cure for this awful disease needs to be found.”

The reporter returned to the station remarking how the lucky survivors would no longer need to worry about contracting the plague as the infection had conferred immunity on them. Frank picked up his tray and exited the cafeteria to drive down to Edison. He drove to the Gruenlicht building and texted to Rudi that he was waiting in the car outside the entrance. As he sat waiting, the hourly news came on his radio with a top story about a possible treatment:

“There is a news report from an unnamed source that there has been a breakthrough in the fight against the plague epidemic. The source has told us that a doctor in Bellevue and another patient have responded well to a new treatment involving a blood transfusion. The donor of the transfusion was a person who has been exposed to the plague bacteria and recovered, and our source also tells us that person was the probable original source of the outbreak who brought the infection back from the Grand Canyon. The transfusion is said to have passed the natural immunity which a person acquires from exposure to an infection. This offers a possible new pathway to treatment as there are already a few people who have recovered from the infection. There is as yet no comment from the hospital or the Mayor’s office on this report. We will bring you an update as soon as it is available. The mayor’s office has scheduled a news conference for three o’clock this afternoon.”

Frank imagined there would be a lot of scrambling back at the hospital and City Hall as they found out what had happened and put together a response. Several texts from Polopoff confirmed this. The fact that they got the story wrong and attributed Jane’s treatment to the transfusion rather than to the phages meant the leak likely had not come from among Jane’s immediate staff. Only they would have known Jane was actually being treated with the bacteriophage and not the transfusion as had officially been entered into her file. If the phage treatment had leaked it would have been a much messier situation.

After that report came another in which angry relatives of victims complained that a treatment was available, but it was only being given to doctors. While Frank listened to the complaints, he glanced up to see Rudi exiting the front doors of the facility, holding another thermos under his arm. Instead of coming all the way out the door however, Rudi was stopped by two security guards who brought him back inside the building. Frank immediately started the car and drove back to Bellevue.

“I see two points which we must address about this incident,” Commissioner Polopoff shook his pencil like a sorcerer wielding a magic wand in the direction of Frank Skorzeny and Jane Simmons who were sitting across the table from him in the Medical Examiner’s Office at Bellevue Hospital, “The first is how this leak occurred, and the second is its significance. Or rather its medical significance on this ‘outbreak,’ though I still do not feel comfortable using that word.”

Jane, still pale from her recent illness, addressed the first point first, “At this moment we do not know who might have leaked information about the treatment in the hospital, though we think it was not someone directly involved in that treatment.”

“Interesting,” Polopoff tapped his cheek with the pencil eraser, “why would you think that?”

Jane glanced at Frank, who responded, “Just some of the details seemed a bit off. Nothing too concrete, though it may be nothing.”

“Nothing?” Polopoff smiled incredulously, “I would not say that a hospital, not to mention a Medical Examiner’s Office, which cannot maintain the confidentiality of its patients is a trivial situation, oh I would not say that at all.”

“I meant whether the leak was…” Frank tried to explain before Polopoff interrupted him.

“Particularly under these circumstances,” Polopoff shook his pencil at Jane.

“Regarding the second point,” Jane continued, “It was something which was tried since we had no alternative treatment.”

“So we are experimenting now with our own patients,” Polopoff reached out as if to touch Jane’s arm, without actually making contact, “don’t get me wrong, we are of course ecstatic that you were dragged out of the grave, as it were, Doctor Simmons. But that is not to say that procedures should be ignored. Procedures should not be ignored, leaks should not occur, and basic precautions should not be so sloppy that the staff of the hospital itself acquire the very illnesses of the patients. The mayor is very, very worried, you should know.”

The Commissioner stood up and looked down at the two of them, “He is wondering, and these are his words, not mine, the mayor is wondering what steps need to be taken in the Medical Examiner’s Office. What immediate steps must be taken procedurally as well as organizationally to get the ship righted,” he doodled a target shaped circle on the whiteboard with a red marker and rapped it twice for emphasis, “These are his words, not mine. You may read into them what you choose.”

After Polopoff’s dressing down had finished and he had left the office, Jane and Frank sat at the table in silence for about a minute before Jane finally spoke.

“Are you guys hiring?” She finally asked, cleaning the lenses of her glasses with a tissue.

Frank smiled, “Just hang on another month, there might be a new mayor by then.”

Jane looked out the window at the children playing in the park, “What are we going to do about the phage treatment?” she asked, “Have you heard anything from Klarkopf?”

Frank shook his head, “Not since I saw him being detained yesterday. I’m waiting for them to come for me next. I’m surprised it hasn’t happened yet. I’ve been expecting a call from the CDC administrative offices looking for an explanation. All they have to do is check Rudi’s phone records to make the connection.”

“That would not happen unless it became a criminal issue,” Jane said, “Gruenlicht might be trying to keep it all internal.”

“So why hasn’t he contacted me?” Frank wondered.

“You know it would be immoral to wait much longer.” Jane said, “If the phages really did cure me, they need to become available to the public as soon as possible.”

“I know,” Frank said, “I’m hoping we can do it together with Rudi though.”

“There are hundreds of new cases every day now,” Jane said, “people have started abandoning the city, but now they don’t know where to go since it’s beginning to appear in other major cities, probably disseminated along the transportation routes.”

As they were talking, a polite knock on the office door preceded Mike’s head peeking inside. Jim was standing behind him.

“We’re about to leave,” Mike said, “I’m just picking up some things at my apartment, and then we’re headed to Princeton. You can reach me on my cell phone if you need me.”

Frank was shaking their hands goodbye when Jane, who had just checked her phone, interrupted them, “Frank, there’s a message from reception that someone has come for you.”

“Did they say who?” Frank asked.

Jane shook her head, “He wouldn’t give a name.”

While Frank escorted Jim and Mike downstairs and met the mystery visitor, Jane reviewed the notes of her illness on the hospital computer. The change in her condition after receiving the phage infusion had been quite dramatic, but scientifically it was far from proof. If the treatment were to be accepted, there needed to be more subjects, as well as laboratory tests to confirm the effectiveness of the bacteriophages. Unfortunately Frank had not kept any of the sample he had received from Doctor Klarkopf since he was not anticipating that contact with him would be cut off. Jane was trying to think of some way to gain access to the laboratory, when the door to her office opened. Frank stepped inside first, then was followed by an older man with a bushy white moustache and balding, unkempt hair. Jane knew who it was even before Frank introduced him.

Although Brooke was very confident of her abilities, she thought it couldn’t hurt to seek advice from a more experienced reporter, such as Libby. Libby was somewhere beyond forty, but that didn’t stop her from dying her hair black, using dark eyeshade and changing the part of her face which she pierced as other women might change the color of their lipstick, which was, incidentally, in Libby’s case not black, but dark purple.

“You have two quite different meetings,” Libby began, “and they definitely require different personas. The first one is more businessy, with, what was the name again, ‘Al Gore Instigators?’”

“’All Gone’,” Brooke corrected her, “’All Gone Incinerators.’”

“Yes,” Libby continued, “You want to be presentable with them. What’s the spiel again?”

“I’m a prospective customer, wanting to place a big order,” Brooke said.

“Oh yeah, you definitely want to borrow Mom’s suit for that,” Libby nodded as if approving of her own conclusion, “and what’s the other one, some musician you say?”

“That’s right, I’m meeting him at a club where he’s playing.”

“That’s easy,” Libby said, “Just go as yourself. You definitely want to hit him with that slut look.”

Brooke stared at Libby for a second, before concluding the comment was well intended.

“You know what I mean,” Libby elaborated, “Dress casual, but a little less Queensy,” She reached over and mussed Brooke’s hair, “Like that, and that halter top is too high. You need to show more leg too.”

Libby peeked under the table at Brooke’s skirt. “Go a little wild too, you need some piercing.”

“I’m meeting them today,” Brooke said, “I don’t know if there’s time to...”

“Just take one of mine,” she took a silver ring with a skull on it out of her nose, “it’s a clip on.”

“I think I have one at home.” Brooke declined the offer.

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Brooke stood in front of the headquarters of All Gone Incinerators in what looked like a warehouse which had not been completely renovated. When she exited the Long Island Expressway onto the Pulaski Bridge in Long Island City, from the highway she could already see the incinerators with the company logo on them standing in the back of the headquarters building. Getting out of the car, she paused in front of the entrance, took a deep breath, and told herself again that now she was a corporate girl – make that a corporate woman.

“Please have a seat, Ms. Daniels. Mr. LeBlanc will be with you shortly,” The receptionist said.

Brooke sat in the lobby, her calves aching from the high heels she had worn for the first time in two years. She was trying to decide whether her left leg should cross over her right leg or the reverse, when a man’s voice greeted her. She looked up to see a handsome young man in his twenties with thick wavy hair and olive colored skin. When he spoke he had a slight accent which sounded as though he came from a country where English was the native language, but it was a country she had never heard of.

“Sorry to keep you waiting Ms. Daniels,” he said. “I’m Amir LeBlanc.”

“Call me Brooke, please,” she said, wishing this were the guy she was supposed to flirt with instead of fat Jake.

“How can we help you then Brooke?” Amir’s white teeth contrasted with his skin color, “On your web query you said you were interested in several incinerators.”

“That’s correct,” she responded, “My client, who at this point prefers to remain anonymous, is an Eastern European company.”

“I see,” Amir took notes on a pad. “Are the incinerators to be received then over there?”

“That’s right,” she said, “It was a former state agricultural enterprise, which has recently become private.”

“And what do they need incinerators for?” he asked.

“The government wants all companies to become EU compliant,” Brooke hoped her prepared story sounded plausible, “part of that is to be able to dispose of diseased cattle through burning.”

“Interesting,” Amir said, “so we are not talking about the disposal of recycled materials.”

“Oh no, it would be dead animals,” Brooke tried to cross her legs elegantly, but her shoe fell off under the table with a clunk, “Are your devices capable of that?”

“Indeed they are,” he responded, “though the necessary adaptation would add a little something to the price.”

“Cost is not so much an issue for my client,” she continued, “the important thing is that the incinerators are designed to burn bodies.”

“Bodies?” Amir asked.

“Yes, animal bodies, of course,” Brooke responded quickly.

“Carcasses?” Amir asked.

“Precisely,” Brooke said.

“Well, we can certainly accommodate that,” Amir reached for a product brochure, “how many units are we talking about?”

“Carcasses?” Brooke asked.

“Units,” Amir smiled, “Incinerator units.”

“Oh, it would eventually be quite a few,” Brooke tried to come up with a serious, but credible number, “eighty or so.”

“Eighty?” Amir raised his eyebrows.

Brooke thought she’d blown it, “I mean theoretically, eventually. It would start with a much lower number like twenty or so.”

“But you yourself are only representing the company, am I right?” Amir asked.

“That’s right.” Brooke tried to smile professionally, “I am just hired to find a suitable product. They are also looking in other countries.”

“What is the name of your company?” he asked.

“At the moment I am freelancing.” She said, “I can give you my contact information though.”

“I believe I have it from your initial inquiry through our web site,” he scrolled down his phone.

“Yes, you would,” she responded, “The client prefers to remain anonymous at this point. But there is one requirement.”

“Which is?”

“They would like a reference of a customer who has used your product in a similar way,” she said, “disposing of bodies, that is to say carcasses. Do you have such a customer?”

“We are actually in the process of delivering on just such an order. Though it may not be likely the customer would want it to be made public.”

“Oh, is it also an agricultural outfit?” she asked.

“No, it is a municipality, actually,” he answered.

“But you cannot name it.” Brooke had also started tapping her smart phone, but she was not actually doing anything.

“Not at this time,” Amir answered, “though when your client is ready to take the next step, we can talk about it.”

“Perfect.” Brooke said, taking the brochure which included Amir’s business card.

As Brooke walked back to her car she searched through her contacts for a classmate from the one finance course she was required to take in order to get her associates degree. There was a woman in her class named Sally Ramona who had some kind of job in city accounting or something. They hit it off pretty well and would go out together after work. Brooke had learned in that course that while a private company such as All Gone did not have to make its contracts public, the city would be required to. She found Sally’s contact information and sent her a text asking if she might be able to help her check any recent deals which involved All Gone Incinerators. She then went home to make her transformation for meeting Jake the bass player at the Bridge.

Brooke lived on another one of those anomalous New York City enclaves, Roosevelt Island. Lying between Manhattan and the Queens part of Long Island, Roosevelt Island sits right under the Queensboro Bridge. For many years the only land access to the island was via a small bridge from the Queens side. In nineteen seventy-six a tramway was built to facilitate access to the island from Manhattan until the F line of the subway finally opened a station there in nineteen eighty-six. The island is rather peaceful compared to Manhattan, the skyscrapers of which loom from across the East River. The relative serenity of the island and the orderly layout of the apartment buildings lend it a kind of Olympic Village atmosphere.

Brooke had grown up in an apartment on the island, and once her parents moved to Florida she became its custodian with the understanding the second bedroom would be available for them whenever they visited New York. She was just about finished achieving the retro-punk look Libby had recommended when Sally called.

“How ya doin’?” Sally asked in a genuine New York accent not heard so much anymore, “Haven’t seen you for a while.”

“Yeah,” Brooke said, applying a skull decal tattoo which Libby had given her to the inside of her wrist, “We need to get together.”

“I checked for that company you were asking about,” Sally said, “I have something a little indirect, but maybe I shouldn’t discuss it on the phone. Are you doing anything later?”

“I’m actually going to a club called the Bridge.” Brooke said, “I’ll be there at about nine.”

“I think I’ve been there,” Sally replied, “I’ll roll in a little later and look for you.”

Brooke arrived at the Bridge shortly before Jake’s band had finished its first set. The music was like Jake, palatable, but not particularly her thing, but anyway this was business, at least for her, though she intended to convince Jake otherwise. When the set had finished, she waved from the small table which she had chosen far from the speakers so they could talk. He came over smiling rather boyishly through his bushy red beard.

“How’d you like it?” he asked like a child hoping for Mommy’s approval.

“It was great,” she took his hand and pulled him into the seat next to her, “what are you drinking?”

“Oh, I don’t drink. Just a coke. I have to get back on stage in ten minutes. Which song did you like best?”

“The first one was really nice,” she said.

“Oh,” his face drooped, “I wasn’t playing that one.”

“I mean the first one you played,” Brooke wanted to cut through the small talk if she only had ten minutes, “You’re an interesting character, playing clubs at night and doing that fascinating job during the day.”

“Well, that’s just to make money,” he said.

“But you wear that cool spacesuit,” she said, “what’s that all about?”

“It’s for protection,” he said, fidgeting uncomfortably, “You know, from the bodies.”

“Bodies?” she asked.

“Yeah, but I’m not supposed to talk about it,” he said, “When’s the review going to appear?”

“Review?”

“Yeah, in your social article in the New York Shout,” he said enthusiastically, “your review of the band. I found a copy of the paper, but couldn’t find any article by a Brooke. What’s your last name?”

“Oh, I’m not in it every day,” she said quickly. “Daniels is my name. Tell me more about your job. Where do the bodies come from?”

“The city disposes of them,” he spoke quietly as the waitress put down the drinks, “they’re plague victims.”

Mention of the plague tended to put a damper on conversations just as talking about nine eleven had shortly after the attacks. But she needed to persist.

“But where do they ship them from?” she asked, “It looked like the boat went up the Hudson.”

“There’s a pier up in Harlem on One Hundred Thirty Fifth Street by the water treatment plant,” he said, “that’s where they’re loaded. Sometimes I work up there. They load them onto the boat from trucks at about five AM, so they don’t attract attention. Can’t we talk about the music?”

“Sorry, you’re right,” Brooke put her hand on his knee and leaned closer, “maybe after the show we can go somewhere and talk some more. Would you like that?”

“I don’t know,” he said reluctantly, looking at the stage.

“What’s the matter, don’t you want to go somewhere with me?” she let her foot bump his under the table, “Or do you have a girlfriend?”

“It’s not that,” he said, fidgeting uncomfortably in his chair, “It’s just that I think both of us could do better.”

Brooke just stared as Jake went back to the stage for his next set. Hillbilly churl. She was trying to rub the ugly skull decal off her wrist when Sally sat down.

“Let’s get out of here,” Brooke said, “I need some fresh air.”

“There isn’t actually any contract directly with All Gone Incinerators,” Sally began as they walked along the sidewalk, “But I saw an order through another company for fifteen units.”

“Fifteen?” Brooke had only seen a total of five at the Staten Island Landfill.

“Five were delivered to the Staten Island Landfill, five will go to the former Jamaica Bay landfill, and five to the former Bronx Pelham landfill,” Sally said.

“For what?” Brooke asked.

“I’m still picking through that, but it seems to be related to some extraordinary order involving the plague outbreak.”

“But the contract was not with All Gone?” Brooke asked.

“Not directly,” Sally said, “It seems like it went through some intermediary company called Potemkin Consulting.”

“What do you know about them?” Brooke asked.

“I haven’t tried to find anything about them yet. Hey,” Sally feigned offense, “I thought you called me to hang out.”

“Yeah, sorry,” Brooke smiled as she stepped off the curb to hail a taxi, “Let’s try that sushi place up by Union Square.”

After Frank’s initial shock at finding Rudi Klarkopf waiting for him in the lobby of Bellevue hospital, he suppressed the urge to ask for an explanation until he was in the privacy of the Medical Examiner’s office where Jane would also be able to hear the details.

“I thought you were taken into custody,” Frank said.

“I thought so too,” Rudi replied, “actually, I guess I was for a very brief period.”

“So they know about the phages?” Frank asked.

“They almost did,” Rudi answered, “It seems someone regularly reviews the recordings from the security cameras, and my previous removal of the bacteriophages had been noticed on one of those reviews. It wasn’t enough to do anything but monitor me more closely though.”

“What did they see?” Jane asked.

“They caught me pouring a concoction into my thermos which I had been seen mixing in the laboratory.”

“The phages,” Jane said.

“That’s right,” Rudi continued, “So for a while my lab was under extra surveillance, and when I prepared the refined batch to pass to Frank, they spotted it and were waiting for me to leave with the thermos.”

“So, are you out on some kind of bail or something?” Frank asked.

“Actually, no,” Rudi explained, “When they confronted me and showed me the recordings of me pouring a mixture from a beaker in my lab into my thermos and then walking out with it, I told them it was just a special tea I liked to brew there.”

“And they believed that?” Jane asked.

“They did when I drank a gulp and offered it to them.” Rudi smiled.

“You just drank it?” Frank asked.

“That’s the beauty of phages.” Rudi said, “They’re actually for the most part harmless to anything but the targeted bacteria.”

“I guess none of them tried it.” Jane said.

“For some reason, not,” Rudi looked hurt, “But anyway by that time, the manager who had approved my sandbox setup and knew my eccentricities had arrived. The whole thing turned into a bit of a joke, I was just warned not to remove anything from the lab anymore without permission.”

“So that means we can’t get to the bacteriophages.” Jane said.

“Not exactly,” Rudi pulled his thermos out, “I didn’t drink the whole thing.”

Frank laughed and looked at Jane, “I told you he was a genius.”

“What kind of lab do you have here?” Rudi asked, “Let’s get to work brewing more of this tea.”

Jane led Rudi on a tour of the facility, showing him the various containers and extraction machines as well as the collection of solvents and chemicals which were used during pathological analyses. She also showed him that all the proper safety precautions were covered including emergency showers to be used if an accident caused a corrosive substance to come in contact with eyes and skin.

“You have everything you need here to create a small scale bacteriophage factory for the Grand Canyon Plague strain,” Rudi Klarkopf stood in front of the equipment which Jane had available in her laboratory.

“I may need a little refresher on how phages actually work,” Jane said.

“As you may or may not have learned in medical school,” Rudi explained, “phages multiply by infecting their target bacteria. They look like little lunar landing modules, and they kind of are if you make believe a cell is the moon. Once they land on the bacteria, the legs attach to a specific receptor. That receptor could be anything, but is commonly a protein. Because the phages need this specific receptor to attach to, they can only target bacteria which have that protein on the surface. This is what renders them harmless to the organism being treated as they will ignore the cells of that organism, a plague victim for example. This is also why I was able to drink them without harm. After they are attached, the body of the phage functions as a tiny hypodermic needle, injecting its genome into the cytoplasm of the bacteria cell.

“Once the genetic material is inside the cell, there are two ways the phage might multiply. Phages that follow the lytic cycle destroy the cell immediately after they replicate within it. This is known as lysing the cell. The progeny ‘babies’ can then go on to infect other cells. Phages which follow the lysogenic cycle do not immediately lyse the cell, but integrate their genome into the DNA of the cell. When the bacterial cell multiplies, the new cells also contain the phage genome. Only if the conditions within the cell deteriorate do these genomes wake up, lyse the cell and release more phages.”

“So lytic phages are the most useful for therapy,” Jane concluded.

“That’s right,” Rudi said, “Since they immediately destroy the cells they infect. But as you can see, unlike an antibiotic such as penicillin which is produced as a byproduct of a fungus, phages actually need the target bacteria to replicate. Fortunately, or unfortunately depending on how you look at it, the target Yersinia pestis is something we have plenty of.”

“So how do we collect the phages?” Frank asked.

“Once we have applied them to a culture of the plague bacteria,” Rudi explained, “we let them work their way through it until the bacteria are all dead. Since the phages are virions, they are extremely tiny, so all you have to do is spin the solution in a centrifuge and skim off the lighter top layer. That is what is used to treat the patient.”

“How do you make sure you are not introducing any remnant plague bacteria into the patient?” Jane asked.

“Well, if you’ve centrifuged and skimmed properly, there is almost no risk of that,” Rudi said, “however, even if a few get through, the phages should be able to deal with them. Remember the patient is already infected anyway. The one remote risk is of a resistant mutation, but that is the risk with any treatment. Usually the human immune system will be able to deal with a few stragglers.

“Actually, the most difficult part in the whole process is isolating the proper phage to treat a particular bacteria,” Rudi continued, “Fortunately the years of research in my sandbox have given me a head start since I have already created a collection of phages which target specific types of bacteria.”

Rudi walked down the line of equipment in the lab, “You have the target bacteria, the centrifuges, the equipment to skim the top, and I have brought the phages.”

“What is the best way to administer them once they have been amplified?” Frank asked, “Just injection?”

“I know that is what you did with Doctor Simmons here,” Rudi pointed to Jane, “but that introduces the risk of some chemicals from the amplification process having a deleterious effect in the bloodstream. Also the body’s own immune system is much more likely to attack the phages if they are in circulation.”

“So would you suggest oral administration then?” Jane asked.

“That would avoid the bloodstream issues, but you would have to mix them with an antacid so the stomach does not destroy them. Also many of the patients may be too sick to swallow the treatment, so we may have to go with injection. Of course we are working in a small laboratory here. If this were an industrial operation we could freeze dry them and convert them into pills or create a more optimal mode of delivery.”

“What about the antibiotics?” Jane asked. “Could we also explore that path?”

“Once we have this lab set up to start producing the bacteriophages,” Rudi answered, “I could continue to work on the antibiotics back at the Gruenlicht laboratory. However, I would not be too optimistic about a quick antibiotic treatment. And if I did find one, it will be difficult to give Gruenlicht a satisfactory explanation of what I was doing with the plague bacteria there to begin with. We would still have to deal with the bureaucracy of a large pharmaceutical corporation. I frankly think that given the crisis we are in, our best bet is to prove the bacteriophage works on some more patients, and then announce it.”

“As soon as we demonstrate that they are effective,” Frank said, “it should be possible to expedite permission to begin mass production, under the aegis of an emergency order if necessary. I don’t see how anybody would object to that.”

Jim pulled his car up in front of Mike’s Orchard Street apartment to pick up what he needed to bring to Princeton, “Need any help carrying things out?” he asked his cousin.

“I’ll be okay,” Mike said, then pointed to the no parking sign, “Besides we won’t be able to get to your place so easily if the car gets towed.”

When Mike went into the building, he found his apartment door locked, which surprised him since he had not had time to do it himself on the day he was rushed out by the police for protection. His key still worked however, and he stepped inside. As he passed from the hall Mike did not notice that the door to Wally’s apartment was open a crack and an eye was peeking through the gap.

Once Mike was inside the apartment, Wally stepped into the corridor and made a phone call, “He’s here,” was all he said.

It took Mike about fifteen minutes to gather the things he needed plus to try to put in order what he could. The landlord seemed to have boarded up the window which the mob had broken with the can of rat poison. When he was ready, he wrapped his things in a sheet and opened the door to leave, only to be met by Wally’s huge body blocking his way. But instead of a violent confrontation, Mike was met with a broad grin as Wally’s hugged Mike, who expected the life to be squeezed out of him. Over Wally’s shoulder, Mike could see two men with very hard faces dressed in white shirts and black jackets without ties.

Outside, Jim had an inkling something was amiss when, five minutes after Mike entered the building, a large black Mercedes SUV with tinted glass pulled up and three very intimidating, though neatly dressed men got out. Two entered the building, while one seemed to be standing guard at the top of the stoop. He dialed Mike’s phone to warn him, only to hear it ring from the drink holder where his cousin had left it when he went inside. As he was debating whether to call for help, flee, or confront the lookout, the front door to the apartment building opened and Mike emerged, looking a bit bewildered, but not particularly distressed. The two men who had entered the building escorted Mike to the car and stood outside while he opened the door and slid into the passenger seat next to his cousin.

“Someone has made us a proposition,” he said.

“What kind of a proposition?” Jim asked.

“Just for us to be available,” as Mike spoke he pulled out two stacks of hundred dollar bills, “As a token of goodwill they’re giving us each five thousand dollars.”

Jim looked at the money, “Available for what?”

“They said if we are interested in more details, they’ll drive us to an apartment to discuss it.” Mike said.

“And if we’re not interested?” Jim asked.

“We can keep the money.” Mike answered, “But then we won’t get the five thousand a week for being on call.”

Jim leaned forward to peer at the men through the window, “who are those guys?”

“They sound Russian or something,” Mike answered, “But they wouldn’t say any more until we decide.”

“What do you think?” Jim asked.

“A month ago, I would have run for my life,” Mike responded, “But now, I don’t feel like we’d be any safer hanging out together on our own.”

The cousins got out of the car and approached a man with a blond crew cut who appeared to be the senior member of the group.

“We’ve decided to take up your offer,” Jim said, “I’ll follow in my car.”

“That’s not necessary,” he said, “You can give me the key and I’ll bring it up.”

Jim looked at Mike, who shrugged and the two of them climbed into the SUV which was equipped with a bar and snack cubby. Jim, a little weak from the excitement after the transfusion, ate some nuts and drank an orange juice.

“Do you think we should tell Frank about this?” Mike asked as he glanced at Wally waving contentedly from the top of the stoop while counting a wad of money.

“Probably,” Jim said and took out his cellphone, but there was no signal available. Mike found the same thing.

“You will be able to call once we arrive,” the driver said.

After a few minutes the SUV pulled up to a building just off Park Avenue on the Upper East Side. A garage had been built under the building which they accessed through what looked like a plain wall rising. There was not even a driveway, so the SUV simply drove up the curb next to a hydrant. They were taken by elevator to a room in one of the upper stories which had a view through a large picture window over Central Park. A man of about fifty wearing a house jacket and a neckerchief entered the room and addressed them in a thick Slavic accent.

“Thank you so much for visiting me here,” he started, waving with his hand for them to have a seat on a plush sofa. Another man dressed neatly, but not quite like a butler, offered them drinks and snacks.

“I want to thank you for having us,” Jim said, “though I am a bit bewildered by what this is all about.”

“I am sorry about the way this was handled,” the host sipped a pale drink in a small glass, “but I want you to know you are free to go whenever you want. Also I would like to introduce myself. I am Vasyli Gordovsky.”

“There’s someone we wanted to call,” Mike said, “but it seems the signals were blocked in the car.”

“Yes, you can call in a moment, but let me first explain our mutual obligations should you be interested in this agreement,” Gordovsky continued, “First on my part, I will pay you five thousand dollars a week for the duration of our contract. This is in addition to the five thousand you have already received just for your trouble. At the end of the contract you will each receive an additional five thousand dollars if you decide to remain until the end. You may terminate the contract at any time, but will forfeit the final five thousand dollars if you do so.”

“What are our obligations?” Jim asked.

“You will be required to be available at very short notice to give blood transfusions.” Gordovsky replied.

Mike looked at Jim, “I take it this is related to the plague.”

“Precisely,” Gordovsky said, “you are a sort of precaution. At the moment, as you know, there is no treatment except blood from an immune person such as each of you are.”

“I have to tell you, Mister Gordovsky,” Jim said, “that we recently gave blood, and so will not be able to give more for several weeks.”

“I know that,” Gordovsky said, “For now I just want you in reserve. Just please do not give any more blood for the duration of our agreement. There are others who will fill in the gap until you are able. Another condition is that you keep the agreement to yourselves. I am rather well known in certain circles and it would be in the interest of our mutual safety to keep our arrangement confidential. You may of course call and see whomever you want, but please do not mention anything about myself or our agreement.”

“How long do you expect to retain us?” Jim asked.

“There is no set time period,” Gordovsky replied, “but upon termination of the deal you will each receive the five thousand dollars I mentioned earlier. In addition, in order to reach you if we need you, you will each be provided with smart watches which we will use to contact you. Finally I ask that you stay close, ideally in Manhattan. To facilitate this I am putting apartments at your disposal which you may use if you choose, but are not required to use. The smart watch may also be used to summon assistance if you need it.”

“May I ask one question?” Jim said.

“Certainly.”

“You seem like a man who could go anywhere whenever he wanted,” Jim said, “Wouldn’t it be easier for you to simply leave until the plague passes?”

“I like your optimism that it will pass,” Gordovsky said, “And I would do precisely what you suggest if I were the only one involved. However, there is someone else at risk. I have a rather stubborn daughter who refuses to leave New York even in the face of this plague. It is really for her sake that I am arranging this precaution.”

The servant brought in a tray with three shot glasses of vodka on it. “Na Zdorovie,” he offered a toast and drank down the vodka, “Aleksey will supply you with the watches and show you the apartments.”

Aleksey was the man who drove Jim’s car when they were brought to Gordovsky. As they were riding the elevator down, he handed Jim his car keys and a monthly pass to a nearby parking lot. After leaving the elevator, he gave them each a smart watch.

“In case you do not know how to use them,” he explained through an accent just like Gordovsky’s, “you can use this button here to summon me. It will transmit your GPS coordinates and I will come immediately. If you just want to talk, press this button. Also use the same button if you receive a call.”

Aleksey led the cousins two buildings down to another equally luxurious apartment, “Hold your watch to the access pad.”

Jim touched the watch to the pad and the front door unlocked. He then took them up to an apartment which occupied an entire floor of the building. The watch also opened the apartment door.

Once alone, Jim and Mike looked at each other and laughed.

“I always somehow felt we were from a royal bloodline and deserved this kind of lifestyle.” Mike looked out the window while Jim explored the apartment.

“I can’t believe they have a television in the bathroom,” Jim said as he walked back into the living room, “too bad I can’t stick around.”

“You’re not going to take the deal?”

“If I knew it would last for a while I would,” Jim shook his head, “but I’ve been away from work too long already. When you’re a project manager, they like you to be working on the project. It’s good deal for you, but this whole escapade could end tomorrow.”

“Come see this Jim,” Mike was looking across the street from the window. Aleksey had just pulled the black SUV up to the building in front of theirs and was escorting a pretty woman in her early twenties. She was dressed very raggedly with holes in her jeans, but had luxuriant wavy dark hair down to her shoulders.

“Is that the daughter?” Jim asked.

When Aleksey opened the door of the SUV, she seemed annoyed and waved assertively, but not rudely for him not to bother. She walked off toward Lexington Avenue as Aleksey nodded politely. He spoke for a moment into his watch before driving off without her.

“She’s beautiful.” Mike said.

Since Peter Carter was the first plague victim, and the nature of the disease’s resistance had not yet been established, the rules were still lax about releasing the remains of the deceased. Although he had to be cremated, it was not done on the mass scale which would later be introduced in large cities because of both the health considerations and the need to dispose of a large number of corpses. For this reason, his son Jim was able to return home from Flagstaff with an urn containing Peter’s ashes after he had been released from the hospital. He held them in Princeton while he arranged both the timing and the circumstances of a proper ceremony with the three remaining survivors of what had once been a very close family.

When Peter emigrated from Sheffield England with his wife Judith, they settled into Woodside Queens where he set up a workshop in the basement of a house he rented to practice his trade of engraving. Before the advent of fine computerized industrial engravers, Peter was able to make a very good living engraving custom patterns and signatures on trophies and other memorial plaques. Within a few years. Judith’s twin sister Rachel and her husband Bobby joined them in New York. Pooling their resources, they were soon able to buy the house in Woodside, and when Jim and Mike were born, they grew up living in the same house, more like brother’s than cousins, particularly since their mothers looked exactly the same. From the physical similarity they inherited from their identical mothers, the two boys were so much alike that they were often thought to be brothers. This belief was of course reinforced by the fact that they lived in the same house. In fact, because Judith and Rachel shared the same DNA, in a strict biological sense, each of them was as closely related to Jim as to Mike, since each of the boys received half their DNA from their mother. It was also through this DNA that they inherited the immunity to plague which had been confirmed through the genetic tests Frank had asked Catsi to perform.

Having identical mothers, while lending the boys a certain amount of celebrity among their classmates, was not without its disadvantages. Perhaps the biggest difficulty with identical twins living closely together was the unintentional offense given when one of them would walk past the acquaintances of the other and not acknowledge them. It was very difficult to convince people who had been slighted in this way that the person who ignored them was not in fact the one they thought they knew, but rather a complete stranger who happened to look just like the woman they expected to recognize them. Usually the offense was taken so to heart that that person would in turn start ignoring them back. Judith and Rachel had been familiar with this phenomenon their whole lives, and learned it was best not to try to explain the situation, which would usually be taken as a bad joke, but to simply wait until the offended party learned on their own that they were in fact dealing with identical twins. A reverse variation on this unintentional impersonation occurred when a complete stranger would approach one of the twins and start blathering away with great familiarity on a subject the target twin had no inkling of. It was always a dilemma for them how to respond in this situation, since most of the time the truth again elicited a response that this was some kind of stupid joke, which ended up offending the confused acquaintance. For this reason the best strategy often turned out to be to smile and acknowledge the other person, but try to indicate they needed to hurry along before the conversation became so involved that they had to admit and explain the whole confusion. As long as the twins were at home raising the boys, most of them knew the same people, so this was not such a problem, but once the boys were older and the twins had found work in two different locations, the incidence of these mistaken identities increased greatly.

Aside from the twin effect, the six of them all lived a very happy, harmonious life, doing everything together, including making trips home to Sheffield every couple of years. It was on one of these trips, when Jim was sixteen and Mike was fifteen, that they rented a van so that all six of them could drive to Peak District National Park. They were all a bit jet lagged since they had just arrived the previous day, but they only had ten days’ vacation, and the twins wanted to show their boys all the spots of their favorite childhood memories. It was a beautiful day as they drove west to the park, with the parents pointing out notable locations from their childhood, both those which were still there, and those which had been torn down and replaced with modern structures and car parks. Peter drove and Judith sat next to him. Behind them, Bobby sat behind Judith and Rachel behind Peter. Mike was sitting in the third row behind Bobby, with Jim next to him.

Peter stopped at the intersection right before the park entrance and looked both ways before proceeding. Unfortunately, having arrived from America only thirty-six hours earlier, he accidentally looked right when he should have looked left and the van was hit broadside by an oncoming car as soon as it entered the intersection. Jim’s mother, Judith was killed instantly, and Mike’s father Bobby was brought to the hospital in a coma. Mike had the top of his left ear ripped off when his head whiplashed sideways through the side window. Jim, sitting on the opposite side from the impact was knocked unconscious when the counter whiplash slapped his head against a side post and left him with a concussion. When Jim awoke from his concussion three days later, the first face he saw was that of his father, Peter looking down at him crying.

“What happened, Dad?” he asked.

But no words came out of his father’s mouth, just sobs. Jim looked over his father’s shoulder to another familiar face and asked, “What happened, Mom?”

His Aunt Rachel, whom he had mistaken for his mother, lost her composure and ran out of the room. Peter finally suppressed his sobs enough to tell Jim his mother had died in the car accident, and that his Uncle Bobby had also just succumbed to his injuries.

The four survivors remained in Sheffield another two weeks for the funerals and to recover enough from their injuries to fly safely back to New York. Once they were back in America, they tried to piece their lives back together in the house in Woodside, but it was difficult, more for Peter and Jim since whenever they saw Rachel, they could only think of Judith. The accident had happened at the start of the summer vacation, and at the beginning of August, Peter announced that he had decided to take a position engraving artwork at Grounds for Sculpture in Hamilton, New Jersey, which a rich patron had been offering him for some time. Rachel offered to give him half the value of the Woodside house, but Peter told her to hold it for him as an investment. The distance was enough so that they would not see each other every day, but could still get together for special occasions, though they rarely did. And so the once close families drifted gradually apart in spite of Rachel’s efforts to keep them together. When Jim and Mike joined the army and were sent to Iraq, their units would occasionally be brought together, reuniting them with a mature perspective on their past which allowed them to appreciate better how devastating the trauma had been for Peter and Rachel. The anguish of Rachel and Peter worrying about the safety of their only children in a war zone, also resulted in renewed contact between them, albeit from a distance, as they would report to each other any new information they had received from the war. When Jim and Mike returned, Peter was able to bring himself to participate more in events with the four of them. This rapprochement culminated in the ill-fated trip to hike the Grand Canyon.

Even though the Catholic Church eventually came to relax its prohibition on cremation, Peter had planned to be buried alone in the plot he had bought for himself and Judith in Calvary Cemetery in Woodside, Queens. Jim was able however to negotiate with the cemetery in light of the circumstances of the forced cremation that Peter’s ashes be inserted into an Inurnment Memorial instead of using the grave. Jim suggested that before he return to Princeton from Bellevue, they hold the inurnment ceremony at the Calvary Cemetery. It was at this ceremony that Jim, Mike and Rachel were united once more.

“I still find it hard to grasp,” she said, “that such a happy family as we were could descend in such a short time to this level of sadness.”

“He was not so sad at the end, Aunt Rachel,” Jim said, “it made him very happy that we were all able to get together as much like the old days as we could.”

“I hope that’s true,” she said, “and I hope you can come visit me when you visit him.”

“I will.” Jim said.

“Do you ever wonder what things would be like, Jim,” Mike asked after his mother had stepped away to smell a rosebush, “if we all had been able to stay together.”

“I used to phantasize about that a lot,” he answered, “in the first few years after the accident. But then I realized there was no point. Did I ever tell you about the checkpoint in Iraq?”

“No.”

“We were at this checkpoint, and you know how it was. You had to make all the cars stop and everybody get out. So this car is coming at us, and we are signaling for it to stop, but it just keeps coming, not especially fast, but it doesn’t slow down. I’m the one sitting at the fifty caliber and finally I’m told, ‘you have to take it out.’ We couldn’t let them get too close, because it could be a suicide bomber. So I let out a burst right through the driver side of the windshield. The car slows down and rolls into the side of a house. Then we walk up to the car,” Jim’s voice cracked as he told the story.

“In the driver’s seat was this old man who must have been completely blind. Even though he was dead, his eyes were open, and you could see they were all clouded over with cataracts or something.”

“So how did he drive that far?” Mike asked.

“Sitting on his lap,” again Jim needed to pause and swallow before he could continue, “sitting on his lap was this boy about eight years old. I guess it was his grandson. He must have been the old man’s eyes, telling him where to turn and when to stop. The bullet which killed the old man passed through the boy first.”

Jim reached out and stroked the memorial plaque which covered the cubby where his father’s ashes had been placed, “it’s all random. Maybe things would have been better if the accident never happened, but who knows, maybe they would have been even worse. Who knows what will happen tomorrow. I only know you can’t change yesterday.”

At five AM Brooke stood shivering miserably in the dark by a urine stinking stone wall under the West Side Highway. “I’m staring at a pier in Harlem, waiting for a damn truck of dead bodies to arrive so they could be loaded on a damn boat full of dead bodies and shipped to a damn dump in a damn dump of a borough so they could be barbecued into ashes and buried. At five AM,” she thought.

This was the first time in her life she had been awake at five in the morning when it was not because she had stayed up all night. It was not even on the right side of Manhattan to catch the sunrise.

“To hell with the plague and to hell with All Gone and to hell with Potemkin Consulting and to hell with The New York Shout and to hell with New York and…”

Brooke’s internal tirade was interrupted by the lights of a large unmarked truck driving toward her from the south. She stayed in the shadows until it turned onto the pier, then she ran across the street to an abandoned red roofed shed to get a better view. A boat, which had been waiting at the dock, turned floodlights on to illuminate the back of the truck. Men in hazmat suits climbed onto the dock from the boat and also from the cab of the truck. They opened the back of the truck and started carrying body bags onto the boat. Brooke kept count. As she reached twenty another truck approached and took the place of the one which had been emptied. This continued for seven trucks and lasted almost an hour, at which point dawn was beginning to lighten the sky. Only then could she read the faint traces of writing which had apparently been white washed over on the side of the last truck, reading ‘Bellevue Hospital.’ About five minutes after the last large truck left, a smaller ambulance shaped vehicle, also unmarked, arrived. One body was removed from the boat and placed in the back of the ambulance. When the motor of the ambulance turned on, Brooke put in her phone earbuds and jogged out of the shadows to start doing calisthenics in the middle of the small road leading to the end of the pier, blocking the ambulance. She deliberately turned her back on the men so she could ignore their calls and honking as she proceeded with jumping jacks, deep knee bends and even dropping to the ground to bang out a few pushups, then repeated the cycle. Finally, one of the men approached her and lifted the face shield of his hazmat suit to address her.

“Excuse me, miss,” he said, walking in front of her so she could not ignore him.

Brooke let out a shriek and put her hands up, “What the hell are you? Is this some kind of abduction?”

“No ma’am,” he said as he struggled to suppress a laugh, “we’d just like you to step aside for a moment so we can get the car through.”

She pulled out her earbuds, which were not attached to anything, anyway, “Where did you guys come from? Did you spend the night in that pier?”

“No, ma’am, Could you please let us by?” he indicated with his hand that she should move to the side of the street.

“But I do this every morning,” she looked past the man, “is that a boat? What are you guys doing anyway?”

“Listen ma’am,” the man’s voice was becoming sterner, “it’s very important that we get through here.”

“Hey, Bub,” she put her hands on her hips and assumed an indignant tone, “I do this every morning. I have as much right to be here as you do. You can’t talk to me like that. If it’s so damn important, you show me some ID.”

“That’s okay, Jack,” another man approached and stepped in front of Brooke. He presented a badge identifying him as Roger Devlin, of Homeland Security, “this is official government business, and this pier is actually private property, so if you don’t want me to arrest you right now for trespassing, leave immediately.”

Brooke began jogging in place, then in reverse as she gave the men a vulgar gesture before trotting off into the darkness of the highway overpass. Once she had disappeared into the darkness, she ran to her car on the other side of the elevated highway, making it back to the pier side just in time to see the ambulance drive off. It was still too early for there to be much traffic, so she managed, albeit with some difficulty, to follow the car as it made its way to Broadway and headed south until it turned onto Central Park South. She followed as it drove over the Fifty Ninth Street Bridge, passing over Roosevelt Island when she wished she were still sleeping in her apartment below. They entered onto the Long Island Expressway and headed straight East into the blinding sun rise, making it difficult for Brooke to keep the unmarked ambulance in view. From there they drove and drove. The rush hour traffic began, but it was flowing in the opposite direction, so it did not slow them down.

“Don’t these guys ever pee?” Brooke said to herself as she looked at the gas gauge, which was below the quarter mark. They drove all the way through Nassau County and finally exited at Commack in Suffolk County. The ambulance did not travel far however, before it pulled into a gas station. Brooke watched as a man, now without his hazmat suit, walked inside the convenience store while his gas tank was being filled. Desperate to go to the bathroom, she ran around the back of the building, bending over to avoid being seen as she passed the pumps and other cars.

“Damn it,” She muttered when she found the women’s room locked. The men’s room was open, however, so she went inside to relieve herself, confirming what she’d always heard about the men’s room’s filth. When done, she hurriedly pulled her pants up and opened the door to a man whose hand was about to grip the knob.

“What are you doing here?” It was the voice of agent Devlin from the pier. His hard stare softened into a bemused smirk, “this is the men’s room.”

Brooke nodded and brushed past him, not wanting to speak for fear of him recognizing her voice from their encounter in the dark. She made it back to her car just as the attendant was finished filling the tank. When Devlin returned from the restroom to his car and drove off, she continued to follow the ambulance with the three people, one dead, as it reentered the expressway and resumed the drive east. They drove for another hour to the end of the expressway where they exited onto Route Twenty Five and continued past vineyards, goat herds, oyster farms and golf courses. They drove through the town of Greenport and all the way to Orient Point, where the ambulance entered a restricted area containing a dock marked ‘Plum Island Animal Disease Center.’

She drove past the restricted area to a public dock from where the Cross Sound Ferry departed for Connecticut. From there she could see the ambulance drive onto a ferry and depart for Plum Island. She then began the long drive back from Orient point to New York City, calling Libby on the way for advice.

“You know that Staten Island Dump project they put me on?” she asked.

“Yeah,” Libby spoke through what sounded like chomps on a bagel, “how’s that going?”

“I’m not sure if I have enough yet to go with?” Brooke said, “Could you check what I’ve got?”

“Sure, where is it?”

“I put it on my folder on the shared drive, under Staten-Island-Dump.” Brooke answered.

“Sure,” Libby said through a swallow, “I’ll take care of it for you.”

Cynthia Foster’s skills and interests would have made her a perfect fit for the CDC. After she received her medical degree she was attracted to the study of infectious diseases and particularly epidemiology. She was indeed intending to apply to the CDC, when a recruiter approached her with an intriguing opportunity. The Department of Homeland Security, formed after the nine eleven attacks on New York, was starting a program to study the vulnerability of the country to a biological terrorist event, largely as a reaction to the anthrax incident which had occurred a week after the attacks on the World Trade Center.

Also known as Amerithrax, those attacks involved letters containing anthrax spores which were mailed to media figures and members of congress. An FBI investigation eventually came to the controversial conclusion that an unstable scientist at the US Bio Defense Labs in Fort Detrick had been solely responsible for the attacks, which killed five people, injured several others and resulted in the closure and sterilization of several Post Offices and other government buildings. It was as a scientist at that same Fort Detrick facility where Cynthia Foster was initially hired.

The United States Bio Defense Program was originally the little sister of the much larger Offensive Biological Weapons Program which was also based in Fort Detrick in Maryland. The Nixon administration ended the offensive program in nineteen sixty-nine, destroying the entire stock of US biological weapons over the next few years, thus allowing the United States to become a signatory to the Biological Weapons Convention in nineteen seventy-two. The defensive program was however maintained, and there were suggestions that the research necessary for a defensive program is much the same as the research which would be carried out in an offensive program. It was into this program that Cynthia Foster was hired after the nine eleven attacks and where she was introduced into the science of weaponizing biological agents.

The goal in converting a biological pathogen into a weapon is to enhance it into a form which kills or incapacitates more quickly, and which can be packaged into an efficient delivery system. There are some characteristics of anthrax which make it particularly favorable for use as a weapon. Firstly, the bacteria naturally forms protective spores which allow it to survive in the dry environments where it is normally endemic. The spores can remain viable for years until they are either inhaled or ingested, when the moisture of the victim’s body breaks down the covering, activating the bacillus and allowing it to multiply and infect the host. Secondly, anthrax is up to ninety percent fatal in a few days if not treated. To increase the lethality of the anthrax spores, they are typically enhanced in several ways. There is an optimal size of the particle in order to make it most likely to cause infection when inhaled. If it is too big it will not reach the tinier passageways of the lungs, and if it is too small it can be exhaled again without attaching to a surface and causing infection. Besides optimizing the size of the delivery particle, it is also necessary to neutralize an electrostatic field which can cause the spores to clump together, also making them too large to enter deeply into the lungs and thus reduce the likelihood of infection. Another way to enhance the infectivity of the particles is to mix them with something like silicate which could abrade the respiratory canals and make it easier for the anthrax to enter the bloodstream. An additional consideration is to create an agent which will only act on the target and not potentially spread to other populations or indeed to the whole world. Anthrax is in this regard also a favorable agent as it is rarely passed between infected individuals.

Biological Toxins such as ricin and botulism are very deadly when delivered directly to the target, but as a mass weapon they are less useful since the toxin would dissipate rapidly in the atmosphere to the point where it was no longer effective.

An airborne virus such as smallpox would be too dangerous to apply as it could sweep around the world infecting friend and foe equally, and since it is a virus, would not be controllable with antibiotics.

After the nine eleven attacks, Plum Island renewed its research in biological weapons which had also been cancelled during the Nixon administration, though this continued at a low level under the umbrella of defensive research. It was a few years later that Cynthia, now a more senior member of the Fort Detrick program, was transferred to the island to assess the direction the programs should take. While she was undertaking this assessment, the plague dog, Tyke was brought to the island along with warnings that it could be infected with a particularly difficult to treat strain of the plague which had already caused some fatalities. When Cynthia had originally been sent to Plum Island she was disappointed at being away from the program’s headquarters in Fort Detrick. With the arrival of Tyke, however, she saw the opportunity to study a disease with the lethality and potential bioweapon significance of smallpox. She saw this as her chance to distinguish herself, and her ambition swelled to the point where she was willing to bend rules and her jurisdiction in any way which might bring her recognition. Even if this meant undertaking exercises which she knew entailed risks she should probably not be assuming.

Since Cynthia had been seeing the world through the eyes of a bio-weapons scientist for the last few years, it was natural that she would also view a plague outbreak from that point of view. On first thought, plague is not a particularly attractive agent to use as a weapon. The most common mode of transmission was historically through flea bites. While it would be possible to drop a package of infected fleas on the enemy, practically speaking it is not a very efficient or reliable form of transmission. There is no guarantee the fleas will actually find their way to the target, and after a person became infected in this way it would be a few days before the symptoms progressed to the point where the patient would be at risk of dying. There would therefore be time to start administering antibiotics after the first symptoms appeared. If the plague bacteria Yersinia pestis were to be used as a weapon, then it would be necessary to understand its pathology to determine what mode of infection resulted in the quickest progression to death.

Cynthia learned from reviewing the scientific literature that when the plague bacteria enters the body through the skin as in the case of a flea bite, the first response of the immune system is to send out cells called phagocytes to engulf and destroy it. Plague however, is able to replicate inside those cells, so they serve as both little nurseries for the plague bacteria as well as little taxis to carry the plague throughout the body. The plague bacteria also secrete several toxins which can be life threatening. The bacteria are most typically swept up by the lymphatic system until they ae deposited in the lymph nodes, where they stimulate severe hemorrhagic inflammation causing the classic swelling known as buboes after which bubonic plague is named. Once the lymph nodes are overwhelmed, the bacteria spill over into the blood stream where they travel throughout the body causing septicemic plague.

In the blood stream the bacteria emit endotoxins which cause tiny clots to develop. These clots can cause necrosis, usually of the fingers and nose and lips as the circulation to those extremities is blocked and they therefore die off. Once the clotting factor is exhausted, uncontrolled bleeding occurs, resulting in a black rash and the coughing up and vomiting of blood. Septicemic plague is almost always fatal and can kill within twenty-four hours of the first symptoms. If plague were to be used as a weapon, it would therefore be ideal to skip the longer bubonic phase and initiate a septicemic infection as quickly as possible. This is where pneumonic plague becomes attractive.

When the plague bacteria enter the body by being inhaled through the lungs, the disease progresses much more quickly than if it has to go through the bubonic route. Besides the possibility of becoming septicemic, the damage to the respiratory system in and of itself can become fatal in a matter of hours. Once pneumonic plague has appeared in a population, it spreads easily by itself as the dying cough the bacteria out in an aerosol which easily infects others. The main difficulty in creating a weapon to spread pneumonic plague is the technical problems involved in packaging and delivering the live bacteria in an aerosol to the target population. In anticipation of such an attack, the friendly populations could be provided with antibiotics in advance to protect them. That is of course unless a resistant strain such as the one from the Grand Canyon emerged.

The epidemic continued to spread and had now appeared in Rome, London, and Mexico City as well as in all the major cities within the United States. There were over a thousand cases a day reported just in New York. Since there was still no treatment, care just amounted to alleviating symptoms and hoping the patient’s own immune system would fight off the infection. This occurred in about ten percent of the patients. While there was a general belief that a cure would be found, it was obvious that even then the virulence of the Grand Canyon strain meant many patients would become too sick too quickly to be saved by it. A parallel effort was made to reexamine vaccines which had been used in the past, but none of these had ever proven very effective. Research continued, but this again would be a long term effort. Riots had begun to break out in protest of the governments’ inability to protect the population from the plague, requiring the National Guard to be deployed in several US cities. There were also renewed calls for isolation, and many smaller municipalities, where it was feasible, established checkpoints for those entering the towns.

As the panic and fear started to spread around the world, Frank Skorzeny and Jane Simmons continued to replicate the bacteriophages according to the techniques laid out by Rudi Klarkopf. They felt they had enough in reserve to start trying it out on patients, of which there was no shortage. Even though Rudi had returned to Gruenlicht for his regular work, he continued to monitor the developments in Bellevue and to look for an antibiotic which would be effective against the plague in his sandbox.

“What do you think about this one?” Frank showed Jane the patient’s profile.

“I’m afraid she’s too far gone,” she said, paging down to her latest status. “If we’ve only got five doses, we need to pick those who have the best chance.”

Of the seventeen patients currently in the hospital, statistically two or three were likely to recover on their own, but it was impossible to tell which they were. Those who were extremely sick had likely suffered so much organ damage that they would probably die even if the phages destroyed the Yersinia pestis remaining in their bodies. It was a classic triage situation except that the only corner of the triangle you could be pretty sure about was the one without hope. Everyone who had been admitted was gravely ill, so it made sense to pick the five who seemed least critical. But the doctors also wanted some statistics to present when they made the case that the treatment should be made available to the public. They did not want the FDA to only approve it for one sex or age group because that’s all it had been tried on. Balancing these considerations, they chose a man and a woman over fifty years old, a man in his thirties, a teenage boy and a ten year old girl. The Black, White and Hispanic races were all represented. Jane would be added to the cohort when announcing the results. It would have been difficult under any circumstances to exclude the youngest of the candidates, a ten year old girl with M. Jimenez on her bracelet, but fortunately she was well enough to qualify without any sentimental considerations. The only concern was that as a ten year old, she might be more susceptible to the drawbacks of the intravenous approach which Klarkopf had cited: the body’s own immune response to the phages and the effects of residual chemicals from the phage amplification process.

While Jane was discussing the plans with the patients’ relatives, Frank and the assisting physicians prepared to administer the bacteriophages. Frank was quietly relieved as he always felt uncomfortable giving details of a dire situation to those sitting anxiously in the waiting room. He told himself Jane would do a better job at that, while he concentrated on the medical side. Since they had decided to go with the intravenous approach, it would be an easy matter of just feeding the solution into the IV lines which had already been put into the patients. He went to each of the patients, observing their vital signs and checking the intravenous lines. Most were not aware of what he was doing, but when he reached the little Jimenez girl, she opened her eyes and smiled up at him.

“Are you the doctor?” she asked.

“One of them,” Frank said.

“Is that the medicine that will help us?” she pointed to the bag of the phage solution which another doctor was attaching to the IV line.

“Yes, we’re hoping it will cure you.” Frank said politely without looking down from the vital signs.

“Thank you” the girl said, “I love you.”

Frank excused himself from the room to double check the procedures and asked one of the other doctors to finish the last minute checks he had begun.

“I think we are all set to begin,” Frank said to Jane when she returned, “let’s attach the phage bags to the IV’s.”

Within a few minutes all the bags were attached and feeding the phage solution into the patients. As the others finished up, Jane left the isolation room to see an employee from administration looking over the procedures for administering the phages.

“Can I help you?” Jane asked.

The employee, a little befuddled, hurriedly placed the papers on the desk, “Yes, sorry Doctor Simmons, I have some orders you placed here for extra laboratory equipment. They still need your signature.”

Jane looked at the papers, “Your name is Stan, right?”

“That’s right,” he said, “Stan Slovnick. I’m a temp with the administrative department.”

“These papers appear to be all set,” Jane said, “I signed them here already.”

“What?” Slovnick looked at the papers again, “Oh, I’m so sorry. I was told to get your signature, I should have checked.”

Brooke looked at her watch. It was six thirty but she had been lying in bed wide awake for the last hour thinking about her investigation. The day before, after watching the ambulance with the plague cadaver depart for Plum Island, she had returned to New York via the Southern State Parkway and the Belt Parkway which took her past the Jamaica Bay Landfill. Like the Staten Island Landfill, this one too had been closed and converted into a park. She could see activity at the top and several structures which, from a distance, looked like the incinerators she had seen at the Staten Island landfill. There were also backhoes excavating at the top. Apparently this former dump was also being transformed into a crematorium.

She had to get into the office of the New York Shout in Chelsea that morning to give an update on the Staten Island Dump report. But the incidents of the previous day and the other pieces of the case kept running through her mind. Unable to sleep, she first did an internet search of Homeland Security in New York, which returned a location on West One Hundred Twenty Fifth Street, not far from the pier where she had observed the movement of the bodies. There were other offices in Manhattan too, but they were farther away. Brooke could not find a website for the Potemkin Consulting company, but there were a few hits which she picked her way through. Eventually she found a mention coming from a report filed by All Gone Incinerators for the order which Sally Ramona had found. She found that Potemkin also had some kind of personnel placement business as well. That piece of information had come from some public documents pertaining to financial transactions involving Bellevue Hospital which listed Potemkin as having been the agency providing an employee for the hospital. By this time Brooke was getting tired and put her laptop away to catch some sleep before heading to the newspaper office.

When her phone rang, Brooke could see it was almost eleven. She could also see it was her boss, Freddy, who was calling.

“Dog crap!” she yelled at the ceiling. For four rings she could not decide whether to simply ignore the call, but finally answered it, “Hey man, I’m sorry, but I’ve been tracking down leads about that Staten Island Dump story all morning.”

“The what?” Freddy seemed not to remember the assignment which she had been killing herself over. “Oh, don’t worry about that for now. We want you to interview the people who have recovered from the plague. A TV station ran a piece on it, and I think we can go deeper into it.”

“Uh, okay,” Brooke answered, “is there a link to the broadcast?”

“I already sent it to you,” Freddy said, “you should be able to get their names from that report.”

“You know, Freddy,” Brooke answered, “I think there might be a pretty good story in this dump thing. I might be on to something there.”

“That’s fine, Brooke. You can go back to that later, but we don’t want to be irrelevant missing these other stories.”

“Okay,” Brooke hung up the phone thinking Freddy should not be so afraid of feeling irrelevant. You get used to it after a while. Welcome to my life.

She looked at the link to the news website Freddy had sent her, which had the names and neighborhoods of the plague survivors displayed during the interview. Still she knew it could take a while to locate them all, so she started with searches by name and when she could, reduced the number of possible matches by location. There were five candidates, and several emails for each one, so she simply sent queries asking if they would be interested in discussing their experience. Just the kind of spam looking email which she herself would normally delete. A related story gave the address and apartment of the suspected source of the outbreak. From a reverse search she got the name of Michael Carter for that apartment, so she included a few Michael Carters in the list too. While she was waiting for responses, she searched for phone numbers and began calling them.

“Yeah, I got over the plague,” One man said on the phone, “but I want to move on with things.”

There was a similar sounding email from a woman who said she was happy to have recovered, but just wanted to put the whole thing behind her. Odd, Brooke thought, most people are eager to talk to the press. They think of it as their chance to finally be discovered. Then she called Lydia Funkler.

“It was terrible, Sweetie,” she sounded pretty old to have made it through the plague, “You feel like crap, and all these black boils start popping in your crotch and armpits. I got blue fingers, Honey. Did you ever seen anybody with blue fingers?”

Brooke admitted she had not, and asked what Lydia attributed her recovery to.

“It was God’s will,” she said, “If he wants to take you he will. If he’s not interested, he just leaves you here with black boils in your crotch and a hundred and four fever. It was God’s will. And the doctors had something to do with it too. Have you ever seen anyone with blue fingers? And don’t count ink stains.”

“Sounds awful.”

“But I’m better now,” Lydia said, “what doesn’t kill you makes you stranger.”

“Stronger.”

“What?”

“Nothing. Would you have time to chat some more? You’re the first survivor I found who doesn’t mind talking about it.”

“Of course they don’t want to talk about it,” Lydia said, “It’s that crazy Russian throwing money at them.”

“Russian?”

“Yeah, that zillionaire guy,” Lydia explained, “Most people will keep quiet if they get five thousand bucks to do it. I’m fortunate not to need it, though. My late husband, Seymour, he was in the garment industry, God bless him. He left me very well off. They took me to the Russian’s apartment up by Yorkville. It used to be all German up there, but now it’s all gone. I told him no thanks and gave him his five thousand dollars back. What do I want at my age giving blood transfusions to some mashugana’s daughter? Who needs that?”

“Can I buy you a coffee somewhere, Lydia?” Brooke asked.

“You can buy me a coffee if you want,” Lydia said, “Kaffee Garten on eighty-sixth near First Avenue. I'm there every day at three for their poppy cake. Hard to find these days anymore. I’ll wear my pink hat and gloves, to cover the blue fingers.”

Brooke thought there might be a fifty percent chance Lydia was not just delusional, so she spent the next hour trying to reach some more survivors, but could not even get them on the phone. They were probably already at work.

“Don’t get up, don’t get up.” Lydia waved for Brooke to sit down when she rose to introduce herself. Lydia looked younger than her voice sounded, but was still past seventy. She sat down and was brought a coffee and slice of poppy cake without ordering.

“Bring one for my friend too,” she told the waitress, “You’ve probably never had poppy cake, am I right?”

“You are, actually,” Brooke said, “Is this where you met the Russian, what was his name?”

“Gordovsky, are you kidding? You think he’d leave his ivory tower for a place like this?” Lydia pointed to the table top, “No, if he finds a peasant he’s interested in, he whisks her off to the palace. Metaphorically speaking of course.”

“So what did he actually want,” Brooke asked.

“He wanted my blood. Can you believe that?” Lydia shook her fork over the cake it had not yet made contact with.

“For what?”

“He had some crackpot idea,” Lydia finally stuck the fork in the cake, “that my blood was magical since God spared me from the plague. Maybe it’s not crackpot, I don’t know. He wanted to keep it in the fridge or something in case his daughter got sick.”

“And he wanted to pay you five thousand dollars for that?” Brooke asked.

“Every week, while I waited ‘til he needed me. Can you believe it?” Lydia finished the sentence with a bite of cake and a gulp of coffee.

“Where was this?” Brooke asked, poking into the cake the waitress placed in front of her.

“Seventy Ninth Street by the park,” she said, “I’ll show you. We’ll take a cab, but finish your cake first.”

“Let me order on Uber,” Brooke said.

“To hell with that,” Lydia said, “My Uncle died in the Holocaust. I’m not getting into anything on wheels with that name. I’m gonna hail a cab, not heil an Uber.”

“That’s it,” Lydia pointed to the building through the taxi window, “They took me there, gave me tea and biscuits, and tried to take my blood.”

Brooke looked up at the elegant five story building, “He owns that?”

“Not just that one,” Lydia said, “All these around here. He wanted to put me up in one of his apartments until he needed me. Creepy. But he did have manners, I’ll give him that. Hey listen, Sweetie, I hate to go, but once I have my coffee and poppy cake, well it makes me go to the bathroom. Would you mind getting out here so I can go home? Thanks for the coffee. I got the cab fare if you can chip in couple of dollars for the tip.”

As Brooke exited the cab a young woman tried to get in.

“There’s someone still in there.” Brooke said and the woman apologized and started to walk toward Fifth Avenue.

“Excuse me,” Brooke called, “Are you one of the ones giving blood?”

The woman turned around, “What?”

“There are people living here to give blood.” Brooke said. The woman looked at her like she was crazy, then kept walking.

“Some rich Russian pays them for it,” when Brooke said this, the woman stopped and turned toward her.

“What did you say?” she asked with a slight British accent.

“There is some rich Russian living in that building paying people to give blood for his daughter,” Brooke pointed to the building Lydia had shown her.

“Who are you?” the woman asked.

“Brooke Daniels, from the New York Shout, and you?”

The woman hesitated a moment, “Elena. Who told you that story about the blood?”

“One of them.” Brooke said.

Elena looked at her watch, “I need to catch a taxi to Columbia. I’m late for class.”

“If you let me ride with you, I can explain.”

“I contacted some of the plague survivors for a story,” Brooke began once they were inside the taxi, “And that’s how I found out about the offer to buy blood.”

Elena looked over the back of the front seat into the rear view mirror, “pull over here,” she told the cabby.

Brooke thought she was going to be kicked out of the cab, but Elena just got out and ran back to a black SUV which was following them. After a few agitated sentences with the driver, she came back to the taxi and the SUV passed them and drove off.

“How do you know it’s true?” Elena asked.

“Aren’t you one of them?” Brooke asked.

“I’m Elena Gordovsky,” she answered after signaling for the driver to continue, “and that rich Russian would be my father.”

“So you don’t know anything about it?” Brooke asked.

“If you know it’s true, you must have spoken to one of them,” Elena said, activating her cell phone and handing it to Brooke, “Call your number from my phone, and then when you have one who I can talk to, you give me a call, and let me know.”

They exchanged phone numbers, then Elena let Brooke off at Columbus Circle and continued with the taxi north. Brooke saw she had received a phone call from Michael Carter saying he couldn’t help her. Brooke texted back to Mike that Elena Gordovsky wanted to talk to him.

“Results are looking good,” Frank informed Rudi over the phone, “it’s been twelve hours, and there are measurable improvements in all five patients.”

“I would say give it another eight hours, then we can request approval.” Rudi responded. “I’ve been amplifying here as well. We should be able to ramp up our output once we have permission.”

“How do you want to go with this,” Frank was unsure what form the announcement should take.

“Just say you developed it there,” Rudi said, “That will avoid questions about any leaks. Once we get the go ahead, I’ll mention it to my boss I gave you advice and we can start working on the production here.”

As Frank was talking to Rudi on the phone, he heard a good deal of commotion coming from Jane’s office. It was the first time he had ever heard her yelling. He ended the conversation with Rudi and went to see Polopoff standing assertively with his arms folded. Jane’s face was red.

“Are you out of your mind?” she yelled, “We are on the verge of a treatment.”

“You have continued to experiment on our patients in spite of my explicit instructions to stop,” Polopoff said in a very calm voice, his nose tilted slightly upward which seemed to allow him to look down on the taller Jane, “the experiment is terminated, and you are terminated. You have one hour to clear out your desk. If you are still here in one hour and one minute, security will deliver you to the police for charges of trespassing.”

“It was my idea, Pawel,” Frank interrupted, “no sense blaming Jane.”

When Polopoff wheeled on his heel to face Frank, he could see his lip quivering with suppressed rage.

“No need to worry about her taking the blame by herself, Doctor Skorzeny,” Polopoff said, “I would fire you too if I could, though I’m sure once the CDC director reads the message I’ve already sent, you’ll be properly disciplined. What audacity you have to come to the Medical Examiner’s Office of a municipality and commandeer the laboratory, not to mention the patients for your own experiments. This is criminal, I’m quite sure, and will be investigated as such. You may leave immediately as you have no desk to clean out. Though I don’t doubt you’ve already picked one out.”

“Whatever you do, please monitor the patients which we have already treated.” Frank pleaded.

“You do not have to lecture me on my responsibilities to our patients, Doctor Skorzeny,” Polopoff replied, “it is precisely because of those responsibilities that you are being ejected from this building. Goodbye.”

Frank left the offices and waited for Jane in the lobby. He thought Polopoff must come to his senses once he saw the patients recovering with the phage therapy. Even without Jane and himself, the other doctors were fully capable of administering the treatment and even amplifying the bacteriophages to provide doses to subsequent patients. He was getting ready to call Catsi with the news, when Jane walked into the lobby with the clichéd box of belongings.

“At least Doctor Klarkopf has some phages,” she said, “it might be harder for him to release them now though, without the evidence we left upstairs.”

“I’m going to talk to my director,” Frank said, “to see if we can continue the work in Atlanta.”

“What will he say to Polopoff’s memo,” Jane asked.

“Well I haven’t kept anything from him about the phages,” Frank replied, “though he might have wanted a little more formal communication and transparency with the Commissioner’s office. The main thing now is to get more phages to start amplifying. I hope Polopoff doesn’t interfere with your staff’s work.”

Jane raised her eyebrows, “There’s no predicting what he will do. You know, as I was leaving I saw this temp named Stan Slovnick going into my office where Polopoff was consulting with the staff.”

“I don’t think I know him.” Frank said.

“You would have had no need to. We hired him a little while back to help with the administrative work,” Jane said.

“So what business does he have in your–I mean the Examiner’s office?”

“Exactly,” Jane responded, “but the funny thing is, I found him by the lab the other day. He said he needed my signature on something, but he looked very curious about what we were doing.”

“Hmmm,” Frank pondered, “Maybe Polopoff needed him to process our dismissals.”

“Could be,” Jane said, browsing the latest news on her phone. “I hope it’s resolved soon, because the epidemic is not going to stop on its own.”

Frank looked at the news on Jane’s phone. All the major cities in Europe as well as most in Asia had now reported cases, while in the United States there continued to be over a thousand a day. In some areas hospitals were functioning more like hospices, delivering comfort to those who would eventually die. In countries which did not have the same constitutional provisions for individual rights, more drastic quarantining measures were put in place as well as the complete isolation of districts of the cities, so that the situation quite closely paralleled that of the epidemics of centuries earlier. In rural areas, particularly where education and literacy rates were low, incidents of witch trials and the burning of entire villages were occurring. Those individuals who survived when everybody around them died were in some cases revered as holy people or even the incarnation of a local god, while in other locations they were seen as evil sorcerers and driven away, if not slaughtered. Ethnic and national boundaries became contentious even in regions where there had been centuries old traditions of harmony and intermingling. Populations where everyone looked, spoke and dressed the same were suddenly divided into the tribes from which they originally descended in spite of long histories of intermarriage and cultural assimilation. Concentration camps of sorts were established to separate those blamed for introducing the pestilence to a particular community. For those relegated to these camps there was no hope of treatment and even the most rudimentary provisions were only grudgingly dropped on the edge of the settlement exactly as had occurred in the plague village of Eyam in the seventeenth century.

Frank handed the phone back to Jane, and helped carry her box to the street to look for a taxi. Before he could raise his hand to hail one however, he needed to put the box down to answer his phone. It was Rudi.

“I’ve been suspended from the lab,” he said, “it seems the Commissioner of Health from New York City reported my unauthorized access to the laboratory of the Medical Examiner’s Office.”

“Sorry about that,” Frank said, “Jane’s been fired and I’ve been kicked out as well.”

“So the phage cultures are lost.” Rudi said.

“I was hoping you got some out.” Frank replied.

“No, I was immediately escorted out of the building.”

“If you came to the CDC lab in Atlanta could you create some more?” Frank asked, though he knew what the answer would be.

“We’d be starting from scratch,” Rudi said, “I’d have to isolate and amplify it. It would take time.”

Frank ended the call and turned to Jane, “Remember when you had the first pneumonic case and said ‘Now it begins’?’”

Jane nodded.

“Well it’s about to begin all over again.”

Vasyli Gordovsky was not born an oligarch, but he was born with ambition. Even if the Soviet Union had not collapsed, he would have found a way to make a very comfortable life for himself. But it did in fact collapse, and he was one of several Russians who immediately recognized that an opportunity had been created which needed to be seized quickly.

One problem with a centralized economy is that those setting the prices are largely guessing how much each commodity should be worth. The second problem is guessing how much should be produced. If you price apples too high or produce too many, there will be apples rotting on store shelves. If you price bananas too low or produce too few, they will all be bought quickly and then nobody will be able to find bananas. To be sure, this effect can also be seen in market economies, but it is usually corrected quickly when the price of a scarce item rises, leading to more production as the growers see an opportunity to make more money. Conversely if more of a product is available than there is demand for, growers will switch to something more profitable, causing the oversupply to disappear. When a free market has been functioning for a long time, this ‘invisible hand’ will work very efficiently to match supply and demand and largely provide consumers not only what they need, but also what they desire.

The transition of Russia’s economy from centralized to free market upon the collapse of the Soviet Union meant all the state owned assets of industry, energy, and finance needed to be transitioned to private ownership so the invisible hand would be free to allocate production and set prices in the most efficient fashion. The first phase of making this transition was the free voucher privatization program through which vouchers representing a share in the national wealth would be distributed equally to the entire population, including minors. These vouchers could in turn be used to acquire shares of the state assets when they were privatized. Since many people were not well informed on how the program worked, or were desperately poor, they ended up selling their shares at very low prices, or not exercising the right to exchange the shares at all. Thus, the management of the assets to be privatized were able to take ownership. It was during this phase that the beginning of the Russian oligarchy formed when many former industry managers, including Vasyli Gordovsky became overnight millionaires.

The second phase of privatization occurred when a fiscal crisis resulted in the Russian government initiating the ‘Loans for Shares’ program. Under this program, state assets were leased for loans from commercial banks through an auction which was largely rigged, resulting in the bankers themselves and other insiders acquiring the leases. When the government was not able to repay the loans, the assets remained in the hands of the lessors, effectively amounting to the sale of those assets for the price of those loans. Gordovsky had used his profits from the initial phase of privatization to position himself to participate as an insider in the Loans for Shares program. Wary that the program might eventually be seen as fraudulent by future governments, Gordovsky and the other insiders stripped many of the assets of the newly acquired companies and stepped up from mere millionaires to billionaire oligarchs. The weakness of the government also assured that very little taxes were paid on the purchases of these assets. The expected invisible hand of the market seemed at least initially to be overshadowed by a very visible finger which the oligarchs had manage to give to the supposed beneficiaries of privatization—the common Russian citizen.

After Vasyli Gordovsky had secured his wealth and transferred a huge portion of it outside of Russia, his focus turned from business to his young family. He had a mansion built outside of Moscow, as well as one on the Black Sea, and a more rustic dacha in the Urals. He also began acquiring property in London, New York, and other major cities around the world which he, his wife Natasha, and their young daughter Elena used on their frequent vacations. Nothing was spared when it came to preparing Elena for life as one of the new Russian elite. Although she was only three years old, she already had a French tutor, and was receiving piano and chess lessons, as well as attending the best early education school in Russia.

“Have fun, my bunny,” Gordovsky said as he kissed Elena’s forehead, before adding to Natasha, “Be careful, my dear, stay on the main roads.”

Watching their chauffeur drive his wife and daughter to a birthday party at an ice skating rink, Gordovsky was contemplating the next steps he needed to take in order to abandon his country in the wake of several kidnapping attempts on other wealthy Russians. He had always dismissed such concerns, telling himself that wherever they lived in the world there would be risks, so they might as well stay where they felt most at home. That was before his neighbor’s son had been found dead even after the father had met the kidnappers’ demand and transferred ten million dollars to an account in a Panamanian bank. He had narrowed down the choices of where he would go to New York and London, and was comparing the tax implications of the two possibilities when a text message was received on his telephone: “We have your wife and daughter. To see them again, transfer thirty million US to the below account…”

After the initial shock and anguish of the kidnapping, Gordovsky’s thoughts turned to resolution and determining what action was necessary. If he believed paying the ransom would result in their freedom, he would have readily agreed. But as he had learned from the case of his neighbor, once the kidnappers had received the money, they would no longer see their hostages as a ticket to wealth, but rather as witnesses to the crime. For Gordovsky, it was more likely his wife and daughter would be kept alive if their captors needed them to prove in some way that they actually held them, and that they were not yet harmed. He therefore turned his thoughts not to complying with the kidnappers’ demands but rather to how to rescue them.

Gordovsky knew that the resources of the Russian State were both an invaluable asset, and a potential source of risk if they were employed in the rescue of his family. It was not at all unimaginable to Gordovsky that officials would become involved in the rescue who would also have contact with the kidnappers, and manage the investigation in a way which would tip them off and assure they received the ransom without being captured. For this reason he chose to utilize the government resources, but indirectly through his old friend Sergei Polopoff.

Sergei Polopoff and Vasyli Gordovsky had been close friends since their student days before the dissolution of the Soviet Union. But where Vasyli made a career in industrial management, Sergei was drawn to the military. He had found a youth’s glamor in the stories from the Afghan war which he heard from returning veterans, and regretted that it had already wound down by the time he reached the age where he could have participated. But knowing there would always be another war, he joined the Soviet Army on a career path to become an officer and eventually graduated from the prestigious Frunze Military academy, rising to the level of Lieutenant Colonel performing with distinction as a counter insurgency expert in the first Chechen war for the Russian Federation.

When Sergei’s annoying younger cousin Pawel decided he wanted to go to medical school in the United States, it was Gordovsky’s money and influence which enabled this dream to come true. Polopoff in turn provided security for the Gordovskys whenever they travelled within Russia, and also, as much as he could, on their foreign trips. Natasha found the constant presence of a body guard oppressive however, and tried to go without one when she went on local errands, instead relying on the protection of her chauffeur, Ivan, who also had a security background.

The fact that not only Natasha and Elena were missing, but the car and Ivan as well, led Sergei Polopoff to suspect the involvement of the chauffeur. He immediately used his connections in the intelligence services to check his background. He also anticipated the need for a rescue team which would require a few individuals with critical expertise whom he could implicitly trust. The first person he chose as a member of this team was Aleksey Kaschnik.

Aleksey Kaschnik needed little training in the way of intimidation or brutality when he joined the Russian army. Even before his teen years he had become involved in the local chapter of an organized crime gang, starting at first collecting bets for the numbers game in the Moscow slum where he grew up, before graduating to debt collection and prostitution. He was on the way to becoming the local boss when a vicious battle with a rival left three of his fellow gang members dead and forced Aleksey into hiding. It was in the aftermath of this battle, while he was being hunted by his enemies, that as a matter of survival he decided to join the army. In the army Aleksey’s raw street bravado and savagery were married to the discipline and technical skills which would make him one of the most feared commandos in the Chechen war. Sergei had seen firsthand not only what an efficient killer Aleksey was, but also how resourceful and cool headed he remained in even the most chaotic and perilous circumstances.

A background check of the chauffeur led Sergei Polopoff to make connections with a professional kidnapping ring which had no knowledge of their victims until they were actually hired to carry out the abduction. Through tracing phone calls made by Ivan, a house on the outskirts of Moscow was identified as the possible location of the kidnappers. Using sophisticated eavesdropping equipment, Aleksey recorded the conversations occurring within the house and replayed them for Gordovsky who was able to identify the voices of both Ivan and his three year old daughter Elena. When Ivan was photographed leaving the building and his face also identified by Gordovsky, it was decided to act before the hostages were harmed in any way. Aleksey knew from his experience rescuing captured soldiers in Chechen that the key to a successful rescue would be meticulous planning and then a lightening quick assault at a moment when the captors’ guard was down. Polopoff was able to obtain blueprints of the inside of the house and use them, along with the eavesdropping tapes to determine what room Elena was kept in as well as where the guards were typically stationed. When Ivan left the building, Aleksey followed him and waited until they were a few streets away from the hostage house before disabling his car with wheel spikes and seizing him. Aleksey persuaded Ivan that his only hope of avoiding execution, most likely extra-judicial, was to cooperate in helping the rescue team gain entrance to the house. The destroyed tires on his car were replaced and he drove back to the house where Elena and Natasha were being held.

With other members of his team positioned outside the building, Aleksey hid in the back seat of Ivan’s car as it entered the garage. As soon as the door to the house opened, Ivan followed his instructions of dropping a grocery bag containing a brick in the threshold so the door could not be slammed shut. As he bent over, ostensibly to pick it up, Aleksey shot the car window the kidnapper who opened the door through, then ran inside the opened door. The gunshot was the signal for his accomplices to simultaneously assault the back door with an explosive charge, and break through a large window in the living room. The suddenness and efficiency of the attack overwhelmed the three hostage takers inside the house who were all killed during the operation. In one bedroom they found Elena sitting frightened. Natasha was not found within the apartment. While Elena was reunited with her father, further interrogation of Ivan led to the admission that in the early days of the abduction Natasha had been killed after she wrested a gun from one of the guards in an escape attempt.

Through the fog of mourning for his late wife, Gordovsky was still able to see clearly enough that he needed to move with his daughter to another country. First they settled in London, where she received her primary education, then eventually when she was accepted to Columbia University, they moved to New York. But the trauma of the kidnapping left Gordovsky with an obsession that each individual be responsible for their own safety. He took Aleksey along with him as the personal security manager for himself and Elena. But Aleksey did not only have the task of providing security himself. Elena was to receive not just an academic education, but also training from Aleksey in self-defense and the use of weapons. Every day for an hour before school she would practice with different weapons in the private armory under their building. In the afternoon there would be another session where she learned strategies in assessing a risky situation and carrying out an assault. She loved this training, and while she also excelled academically, she developed a cool hardness and self confidence in dealing with the most precarious circumstances. Her personality also incorporated a degree of cynicism and hardness at an early age which most people never acquire over a lifetime.

When Brooke walked through the giant wooden doors of Saint John the Divine Cathedral, the Lacrimosa from Mozart’s Requiem was playing on the organ. The reverberation was magnified by the fact that the organist was entertaining just a handful of people sitting in pews which were bathed by a rainbow of colors from the sun shining through the huge rose window above and behind them. Not only the pews, but also the altar was empty. It all felt a little creepy to Brooke as she walked down the center aisle to sit, as instructed by Elena, in the first row of pews. She could see as she approached, that a man was already sitting there.

“Mike Carter?” she asked.

He turned to look up at her, “Elena?”

“Are you kidding?” she sat down next to him, “Do I look like a billionaire?”

Mike shrugged his shoulders, “You’d be the first I’d ever met.”

“Second, you mean.”

“Second,” Mike looked up at the soaring vault, “was this your idea?”

“I’m not really the religious type,” Brooke looked at magnificent interior of the largest Anglican and fourth largest Christian Cathedral in the world.

“Why did she pick this place,” he asked.

“She goes to school near here,” Brooke answered, “She’s studying at Columbia.”

“So what’s wrong with Starbucks?” Mike responded. He had to raise his voice as the organ reached a particularly loud passage.

“I think she needed to give her minders the slip.” Brooke said. “So it’s true, then, about the blood?”

“Let’s wait for Elena to get here.” Mike replied.

“I am here.”

Mike and Brooke spun their heads around to see Elena sitting behind them in the pew which a moment earlier was empty.

“My name is Mike Carter,” Mike started to reach his hand over the pew back to shake with Elena, but it felt somehow unseemly to him in the cathedral.

“This was a bad idea,” Elena said, frowning at the organ volume, “Let’s go somewhere else.”

“Good idea,” Brooke agreed, “I wouldn’t mind a more cheerful spot.”

“There are some benches in the cemetery,” Elena said as she stood up to lead them out a side door, which opened into the church graveyard, “it’s more peaceful here.”

They sat on a stone bench among centuries old gravestones. The squirrels scurrying among the tombs gave Mike an unsettling flashback to the Grand Canyon hike.

“You are one of the donors?” Elena asked him.

“What kind of donor are you thinking of?” Mike asked warily.

“Blood, of course.” Elena said, “Didn’t my father pay you for your blood?”

“To tell you the truth,” Mike said, “I don’t even know who you are. Maybe you’re another reporter working with Brooke here.”

“Look,” Elena pulled her wallet out and handed them her Columbia identification card showing her picture, and name as Elena Gordovsky.

The name matched what Brooke had found under Wikipedia for Vasyli Gordovsky’s daughter,

“For all I know that name could be as common in Russia as Jane Doe,” she said.

“Just a moment,” Elena fished out another card and handed it to Mike, “this is one of my father’s business cards.”

Mike looked at the card, then at Elena and smiled, “To tell you the truth, I believed you as soon as I met you. I saw you from the apartment window talking to Aleksey in front of the black SUV the day I met your father.”

“This is your father’s company?” Brooke looked at the business card, “Potemkin Consulting?”

“He has many companies,” Elena answered, “That’s one he uses here. Do you know it?”

“I’ve recently ran across it during an investigation,” Brooke said, “what kind of business is your father in?”

“Whatever brings him money and power. But he never discusses the details with me. What were you investigating?”

“Oh, something different,” Brooke put the card in her pocket, “your father must love you very much to go through all this trouble and expense.”

Elena smiled cynically, “I don’t doubt he loves me and would do anything for me. But I’m sure there’s more to it than that.”

“Why do you say that?” Mike asked.

Before Elena could answer, Brooke bounced off the stone bench to her feet, scattering the squirrels, and yelled furiously at her smart phone, “That nose piercing cow!”

Mike and Elena looked around to see who might have noticed the outburst, but aside from the dead, no one was close enough to hear.

“She stole my story,” Brooke paged through the latest online edition of The Shout to see Libby had written the story about the Staten Island Dump which Brooke had been investigating. The by line was Libby with no mention of Brooke at all. Everything she had uploaded to the newspaper’s shared drive was there, “That god damn Satan worshipping witch.”

Elena looked around again. “Would you mind sitting down?” she said.

“Sorry, it’s a personal issue.”

“But I can’t imagine you’re afraid of him,” Mike picked up the thread of his conversation with Elena.

“No,” Elena responded, “why would you wonder about that?”

“All this secrecy, for example,” he said, “meeting in the back of a church, in a graveyard.”

“That’s not for my protection,” Elena said with the merest hint of a smile, “that’s for your protection.”

Mike seemed taken aback, “Do you think I’m in danger?”

“Let me ask you,” Elena said, “would you mind him knowing you met with me?”

“Well no, but that’s because of our deal.” Mike replied.

“That’s the way he works,” Elena said, “making agreements that oblige people.”

“He has his obligations too.” Mike said.

“What do you know about Potemkin?” Brooke interrupted.

“Next to nothing,” Elena answered, “Papa likes to keep me ignorant of the business. He says it’s safer that way.”

“Safer from what?” Brooke asked.

Elena just shrugged, “Like I said, it’s his way,” she turned to Mike, “So it’s true he’s paying you thousands to give blood for me?”

“Not even to give blood.” Mike answered, “just to be ready in case you need it.”

“What if someone else needs a donation?” Brooke asked.

“I’m not supposed to give any during the agreement.” Mike replied, “so I’m ready when it’s needed.”

“So your blood is off the market then?” Elena asked.

“I guess you could put it that way,” he said.

“Papa always had a way with cornering markets, in this case for the only plague treatment.”

“It’s actually not the only treatment,” Mike said.

“It’s not?” Brooke smelled a story.

Mike seemed to regret making the comment, “Well other things are being tried. I don’t know when they’ll be ready for release though. They’re just experimental.”

“How do you know this?” Brooke asked.

“From my time in Bellevue.” Mike said.

“What were you doing there?” Brooke persisted.

“I probably shouldn’t say any more,” Mike declined to elaborate, “besides, I don’t really understand the details.”

“I’m sure Papa would love to know them.” Elena said. Before rising to leave, she turned to Brooke.

“You seem like an okay girl,” she said, “I would advise you to distance yourself from this story, and keep our discussion among ourselves. My father can be quite driven, if not ruthless. And while I may not like everything he does or the way he does it, he is my father and has struggled to bring us through some very hard times to where we are now. He will do anything to protect what he has.”

Elena started to walk away after delivering this advice, but turned to say, “and so would I.”

“That wasn’t the warmest ‘see ya later’ I’ve ever heard,” Brooke said as she stood and watched Elena leave the cemetery.

“A little chilling actually,” Mike replied as he and Brooke left the cemetery gate and walked toward the Hudson River.

“Do you really feel comfortable dealing with them?” Brooke asked.

“Well, I guess I’m dealing with the father,” Mike responded, “he seemed pretty charming actually, though he does have some tough looking friends.”

“It doesn’t really sound like Elena’s bought into it completely, “Brooke said, “which is funny since it’s supposed to be for her benefit.”

“I know what you mean,” Mike replied, “it sounds like you’ve already done some research into them. What’s the significance of that Potemkin outfit?”

“It seems like some contracts which the city has with other companies are channeled through them,” Brooke said, “I haven’t connected all the dots yet though.”

They had reached Riverside Park along the river when Brooke suddenly asked, pointing to a dome a few blocks north, “Hey, do you know who’s buried in Grant’s tomb?”

“That joke has to be one hundred years old.” Mike said.

“It’s not a joke,” Brooke said, pulling Mike by the arm up toward the monument, “it’s a riddle. And it has two answers.”

“Well the answer I always knew was ‘Grant,’” Mike said.

“That’s the obvious answer,” Brooke replied, “want to see the other one?”

Brooke led Mike toward the austere monument which was incongruously surrounded by colorful mosaic benches. Inside, they looked down into a vault containing two huge red granite sarcophagi.

“The second answer is ‘Grant’s wife.’” Brooke announced with a good degree of self-satisfaction.

Mike looked down at the coffins and shook his head, “very funny, for a joke about the dead.”

“The dead are becoming my specialty.”

The Bronx-Pelham Landfill was likely the most sinister of the three retired New York City dumps. Originally intended for household refuse, it also illegally received over a million gallons of toxic waste as a result of bribery. Years after the dump was closed, a higher incidence of childhood leukemia was reported in the surrounding neighborhoods. Decades of lawsuits and an ultimate settlement by the city ensued. The hill of this former dump, like that of the Staten Island dump and the Jamaica bay dump, is the highest land elevation for miles. It remained closed off by a razor wire topped fence until the city started using the dumps to dispose of plague corpses.

“It looks small from here.” Bull said though his hazmat mask, looking into the distance at Hart Island from the top of the freshly reopened Bronx-Pelham Landfill.

“That’s just cause’ it’s so far away,” Virgilio said.

“Here’s another batch,” the foreman called out as a fresh truck full of bodies arrived.

Virgilio, Bull and Jesse began carrying the bodies to the last used incinerator. There were ten on the hill now, up from the five which had originally been delivered. The men would cycle between the incinerators, so there were always some burning, some cooling, some having the ashes emptied and poured into the dump, and some freshly loaded.

“I wish I was back on that boat,” Bull said.

“I sure don’t,” Jesse’s stomach turned remembering the waves.

“When you was on the boat,” Virgilio said to Bull, you was wishing you was on land.”

“I just hate these pajamas we have to wear,” the big man said.

“I love being back on the mainland,” Jesse said, “even if we have to take a bus with caged windows to get to this place.”

“Besides,” Virgilio added, holding one body near the head as Jesse took the feet, “We’ll be getting time off our sentences for coming out here.”

“Another thing,” Bull said, “The bodies were lighter on the island.”

“What are you talking about?” Virgilio said, “How could they be heavier here.”

“Actually,” Jesse said, “It’s farther from the center of the earth here, so they should be lighter up here.”

“Don’t start with that wise guy stuff again.” Virgilio shoved the top of the corpse’s head into the incinerator, “I can see the ground is just as far away.”

“It’s not the ground,” Jesse answered as they took another body out of the truck, “It’s the center of the earth.”

“Don’t that mean we’re lighter too?” Bull was carrying a single body in his arms, like a baby.

Jesse opened his mouth to answer, then shut it as he wondered if Bull had a point.

“But don’t forget Hart Island is for poor people,” Virgilio spoke confidently.

“Why should that matter?” Jesse asked.

“Well poor people are skinnier.” Virgilio declared triumphantly.

Jesse thought for a few seconds, not wanting to concede defeat. Finally he declared, “That’s not true anymore. Now they’re fatter.”

“Now I know you’re being a wise guy,” Virgilio dropped the head of the next body angrily.

“Hey, you, show some respect.” The foreman yelled.

Virgilio apologized, picked up the body and continued, “Everybody knows poor people are hungry and skinny.”

“That was in the old days,” Jesse answered, “Now they’re not hungry anymore, they just eat cheap food. That’s what gives them diabetes and all those metabolic diseases. It’s the bread and sugar.”

“Does sugar give you the plague?” Bull now had a body slung over each shoulder like sacks of potatoes.

“And you there,” the foreman called out, “one at a time, with dignity.”

Bull let one body drop to the ground. Jesse and Virgilio rushed to pick it up before the foreman exploded. They tapped their heads indicating Bull was a little slow.

“Which way are we?” Virgilio asked Jesse as they waited for the next truck.

“Rikers Island is that way,” Jesse pointed toward the East River, “There, in the middle of the river. Look to the right of the Whitestone Bridge. Right in front of LaGuardia Airport. See the plane taking off.”

“Those damn planes that wake me up in the middle of the night,” Virgilio mumbled, “It looks kind of peaceful from here.”

“From here, sure,” Jesse said, “The only shanks you got out here are lamb shanks.”

The two men chuckled and Virgilio patted Jesse’s back, “You sure are a wise guy, kid, but you do come up with some funny ones. We could put an act together when we get out. I wouldn’t mind being the straight man.”

“And Bull?” Jesse asked.

Virgilio rubbed his chin thoughtfully a few moments, “The bouncer,” he finally declared.

“Well he’s strong enough,” Jesse said “but he doesn’t take offence too easily.”

“That’s true,” Virgilio admitted, “You could punch him full strength in the face and he’d just ask ‘Wud ya do that for?’”

Bull walked back from the portable toilet.

“Did you wash your hands?” Virgilio asked him, “don’t want to infect the bodies.”

Bull turned around and walked back to the toilet.

“How long do you think this plague will go on?” Virgilio asked Jesse.

“If they don’t find a cure,” Jesse answered, “There’s no stopping it.”

“I hope they find a cure,” Virgilio replied, “but not before they let us out early.”

“I hope we get out of Rikers,” Jesse said, “Before the plague gets in.”

“Fresh batch,” the foreman yelled.

Behind him a black SUV was parked, the tinted windows hiding whoever was monitoring the operation.

“What a bunch of cowboys,” Tony Ribacci shook his head as he looked across his desk at his epidemiologist, Frank Skorzeny as well as the two guests he had brought with him to the CDC office in Atlanta, “it doesn’t amaze me at all that your two colleagues here, Doctors Simmons and Klarkopf were dismissed. What amazes me, Frank is that you would take part in such an undisciplined – experiment -- is the kindest word I can come up with. And it also amazes me that I haven’t already dismissed you too.”

“It was kind of the heat of the moment…” Frank fumbled for a response, then gave up.

“A moment doesn’t span several days,” Ribacci replied, “and it is hard to categorize the clandestine smuggling of cultures and materials between laboratories as ‘the heat’ of anything. And now you ask if we can hire your accomplices?”

“Not necessarily hire them,” Frank said, “but continue the work.”

“The phage therapy?” Ribacci asked.

“That’s right,” Frank answered, “We had some very good responses, didn’t we?” he turned to Jane.

“I would likely have been dead without it,” she said.

“So why not just announce it?”

“All the evidence is in Bellevue,” Rudi joined the conversation, “or the Gruenlicht laboratory.”

“And we can’t get it released?” Ribacci asked.

“Maybe you could.” Frank suggested.

“What do I say?” Ribacci said, “’We know there’s a cure for the plague, but it’s in the New York City Medical Examiner’s office and the lab of a private company?’”

“That might work” Rudi said hopefully.

“It won’t work just like that,” Ribacci said, “they’ll want to know how we know it works. They will want to see what proof we have.”

“Well there will doubtless be a certain amount of politicking involved,” Frank admitted, “but that’s where you shine.”

“I can give you a helpful contact in Gruenlicht,” Rudi said.

Ribacci looked at Jane.

“Well I can give you a contact,” she said, “but he won’t be helpful.”

“But the important thing is to keep working on the phages,” Frank said.

“There’s no way I can put the two of you on staff after these incidents,” Ribacci said emphatically, “the best I can do is to let you participate in the work as observers.”

So while Ribacci began the process of negotiating access to the phage solutions in Bellevue and Gruenlicht, Rudi, Jane and Frank would work with Catsi to prepare a lab for the eventual amplification of any phages which they would be able to acquire.

“I’m thrilled to meet you,” Catsi said to Rudi and Jane as he handed Frank a printout, “I’ve heard a lot about how clever the both of you are.”

“And Frank tells us you are quite the lab genius,” Rudi said.

“Look at this list of antibiotics Catsi has compiled,” Frank handed the sheet to Rudi.

“Are these all of the ones which the Grand Canyon Plague is resistant to?” Rudi scanned the paper.

“Tell him where this list came from,” Frank said to Catsi.

“I extracted traces of these antibiotics from the bison, elk and deer jerky which Frank brought back from the Grand Canyon.”

“No wonder resistance developed there.” Jane said.

“Well,” Rudi said, “We must assume Doctor Ribacci won’t be successful in acquiring the extracted phages from either Bellevue or Gruenlicht. Therefore we have to begin with the first step of trying cocktails of phages against a GCP culture.”

“GCP?” Catsi asked.

“Sorry, that’s how I refer to the Grand Canyon Plague,” Rudi explained.”

“Well we have plenty of GCP culture, but where do we start with collecting the bacteriophages?” Catsi said.

“We could just start with batches of untreated sewage,” Rudi replied, “or even better, we could extract them from the cadavers of plague victims.”

“We can get our hands on both of those.” Frank said as he opened a voice mail which had just arrived on his phone.

“In that case,” Rudi went on, “we should try as many samples as possible. It will be pretty tedious, as we have to start by centrifuging the samples to skim off the phages, then see if we find a mixture which works. If we do, then we will need to isolate the individual phages in the solution, and try each one to see if it is the effective one.”

“Sounds like this is going to take a while,” Jane said.

“It will,” Rudi said, “we will likely have to go through several samples before we even find a response which allows us to go to the next isolation step. Of course, if Doctor Ribacci is successful in requesting them from Bellevue or Gruenlicht, we can just go straight to mass produced amplification.”

Without a word, Frank placed his phone on the table, and played the voicemail he had just received for all to hear.

“Doctor Skorzeny, this is Cynthia Foster, from the Animal Disease Center. We have a bit of an emergency situation here. To be quite honest, one of our staff has contracted plague, and we need some assistance in treating him. Please call back as soon as you can.”

“I went to you for advice,” Brooke looked down at the top of Libby’s head, “and you just took my report for yourself.”

Libby looked up at her younger colleague, “It doesn’t really work like that around here.”

“There was no credit given to me at all,” Brooke’s voice was growing louder, and others in the room were starting to look at them, “I thought the by line was sacred.”

“That’s only in idealistic movies,” Libby said, “this is a real business.”

“It seems to be a pretty dirty business, to me,” Brooke’s voice became even louder.

“Libby, Brooke,” Freddy called from the doorway of his office, “would you please come in here?”

“I told Libby to finish the story,” Freddy said after closing the door, twirling a strand of his beard around a finger as he spoke.

“But that was my story,” Brooke said.

“All the stories belong to The Shout,” Freddy replied very calmly, “if one reporter can’t finish a story, another one has to pick it up.”

“But the only reason I didn’t finish it was because you took me off it to interview those plague survivors.” Brooke explained.

“And what’s been happening with that one?” Libby asked.

“I’m still working on it.” Brooke said.

“Your pace is a little, how should I say…leisurely?” Freddy said.

“I established a connection between the new story and what I found out about the dump,” Brooke said, “I wanted to present them together.”

“You found a connection?” Freddy said, “why didn’t you say anything to me?”

“I didn’t get a chance to,” Brooke said, pointing to Libby, “before you gave my story to her. Why didn’t you say something to me before you did that?”

“Now you know why we call her ‘Babbling Brooke,’” Libby said to Freddy.

Brooke just glared back at her.

Freddy held his hand up like a referee, “well that’s wonderful then, Brooke, let’s just go over what you’ve got, and we can do a sequel.”

“Go over what I’ve got?” Brooke felt herself losing control, “So you can give it to your girlfriend?”

“That’s very unprofessional,” Freddy said, as his face became red from embarrassment rather than anger.

“How would you know?” Brooke yelled, “I always thought everybody called Libby the skunk because of the streak of white roots running through the middle of her black hair. But now I know it’s because she stinks like this whole place.”

Brooke did not feel the stress she had always been afraid would come with being fired by The Shout. In fact it was quite a liberating feeling to stand across the street looking up at the smirkers in the window of her old office and deliver the ancient defiant gesture. The one the English started using in the Middle Ages to show they still had the middle finger needed to draw back the longbow string and put an arrow through your heart. Still, as she walked along with that wonderful feeling of not having to be anyplace in particular, she did not forget about the need to have an income. She knew if she applied to another news organization, they would want references from her previous job. She also knew she had the makings of quite a scoop in her hands, which any paper, including the prestigious New York Tides would want to publish. Brooke figured she could devote a month to tying together the loose ends of that story, and presenting it to media groups for the best deal. She would try to give freelancing a go.

As she strolled through the garment district streets toward the Hudson River, she thought about all those loose ends which she needed to knit together into the fabric of a complete story. A big one was Potemkin Consulting and its involvement in the incinerator purchases. What role did Elena Gordovsky’s father Vasyli have in that deal through his company? Elena had also hinted that his interest in paying plague survivors not to donate blood might be motivated by more than her wellbeing. Was Potemkin’s employee placement at Bellevue at all related? But for Brooke, the eight hundred pound carcass in the room was Homeland Security’s interest in plague cadavers.

Brooke’s sauntering eventually led her up that aerial greenway built on an abandoned railroad track called the Highline. She stood on the section looking over the river along Twelfth Avenue, west of Penn Station and searched the latest news for incinerators. It seemed Boston and Philadelphia, now presented with their own growing plague corpse problem, had followed Mayor Jenkin’s lead in purchasing incinerators for disposing of the bodies. Washington DC was also considering following suit. The incinerator business was proving very profitable.

She started her attempt to connect the threads by calling Mike Carter, “Hi Mike, this is Brooke, do you have any time to talk?”

“Sure, what’s up?”

“I’d rather not go into it on the phone,” she said, “are you anywhere near Twelfth and Thirty-Fourth?”

“Actually, yes,” he answered, “I’m walking through Hell’s Kitchen. Where do you want to meet?”

“I’m on the Highline, just south of the NYPD Tow Pound,” Brooke said.

“Where they take the cars?” Mike asked, “I can be there in ten minutes.”

A few minutes later, Brooke watched as Mike climbed the steps onto the Highline.

“Good timing,” she said as Mike walked up to her, “that barge out there in the middle of the river is full of plague bodies.”

“You’re kidding,” Mike looked out over the same boat Brooke had seen in the middle of the night as it headed down the Hudson River toward Staten Island, “how do you know that?”

“I investigated the dump opening.”

“Oh yeah, I read an article about that.” Mike said.

Brooke clenched her teeth for a moment, then relaxed them and continued, “Do you remember Elena talking about her father’s company Potemkin Consulting?”

“I do,” Mike answered, “I also remember you were very interested in it.”

“Well, from what I have found out, it seems like that company is some kind of middle man for purchasing the incinerators.”

“Wow,” Mike reacted, “some people just know how to make money.”

“But there was something else Potemkin is involved in too,” Brooke said, “they were placing people at Bellevue. Would you know anything about that?”

Mike shrugged, “Bellevue is a pretty big place. I know someone who used to work there though.”

“Do you have a number,” Brooke prepared to enter it in her phone.

“I can pass her yours,” Mike said, “she might not like me giving it out to any nosy reporters.”

Brooke’s smile at Mike’s remark faded and her face went pale as she saw a news bulletin on her phone, “Someone just walked into my office and shot dead my boss and co-worker,” she gasped, “I was there just an hour ago.”

“Did they have enemies?”

“Apparently,” Brooke mumbled, trying to decide what to do.

“Yes, that was a stupid question,” Mike said.

Brooke bit her lip as her knee moved nervously up and down. “Maybe not,” she said.

“So it was random?” he asked.

“Maybe not that either,” Brooke said, “she was the one who stole my story.”

“About the dump?”

Brooke nodded, “and the bodies in the incinerators.”

“Good thing she stole it,” Mike said, them immediately regretted it.

“Do you think that’s what it was about?” Brooke asked anxiously.

“Probably not,” Mike reassured her, “it was most likely something personal.”

“She was carrying on with – the other guy who got shot,”

“It must have been some jealous rage then.” Mike concluded, “was he married?”

“I heard he was,” she said, “though I never met his wife. We weren’t really that close.”

“It’s easy to project your own fears into these things,” Mike said, “and think it has something to do with you.”

“I was thinking of finding another place to stay,” she said.

“You could stay with me,” he suggested, “but I don’t think Gordovsky would like it.”

“No, I don’t want to hang around up there,” Brooke had taken her phone out and was thinking of giving Sally a call.

“Wait a minute,” Mike suddenly remembered, “I still have my apartment.”

“Won’t there be questions?”

“The neighbors will just think the landlord found a new tenant.” Mike took out his key and handed it to her.

“And the landlord?”

“He already got his rent,” Mike said, “so he won’t complain.”

“Maybe that’s not a bad idea,” she said, “I need some things from my place though.”

“I can get them if you want,” Mike said.

“It’s mainly my computer,” Brooke answered, “I can buy whatever else I need. Just for a few days.”

The conversation was interrupted by Brooke answering her phone.

“Miss Daniels?” an unfamiliar man’s voice said.

“Who are you?” she asked warily.

“Detective Thomson of the New York City police. Homicide,” he replied, “I’d like to talk to you about the homicides at The Shout. Will you be home soon?”

Brooke grabbed Mike’s arm to stop him from leaving and put the call on speaker, “actually, I’m staying with a friend. Can we meet at the police station?”

“That would be great,” the detective said, “I’m at the tenth precinct on West Twentieth Street. Do you know where it is?”

“Yeah, it’s just around the corner from…” she couldn’t finish the sentence.

“From where the murders happened,” he said, “I’ll see you there in an hour.”

“Be careful about what you say,” Mike said after she ended the call.

“I know,” Brooke responded, “but at least if I meet him there, then I’ll know he’s for real.”

“I’d like to talk to you about your behavior,” Warden Schweinfurt looked across his desk at Jesse.

“I’m sorry, sir,” Jesse glanced at the guard standing against the wall, “I know I’ve occasionally been a bit of a wise guy.”

“A wise guy?” the warden responded, “you think you’ve been a wise guy.”

“I know I have,” Jesse replied, “at the beginning. But now I’ve stopped.”

“Anything else about your behavior you’d like to comment on?”

Jesse looked again at the guard, trying to guess what infraction might have caused the warden to summon him, “that’s all I can think of, sir.”

“Well, I didn’t call you here for being a wise guy. Someone mentioned something different about your behavior.”

“Sir?”

“It has to do with the body disposal.”

So that was it, Jesse thought. The foreman must have reported when he was practicing ventriloquism on the body at the Pelham Bay dump.

“I’m sorry sir…”

“There is no need to apologize, Jesse,” the warden withdrew a document from a folder and slid it in front of Jesse, “someone has actually commended you.”

“Commended?”

“That’s right,” the warden showed Jesse the closest thing to a smile he had ever seen on his face, “for your excellent work with the incinerators.”

“Thank you, sir. May I ask who it was who commended me?”

“It was someone involved in administering the process. Someone who observed you at the dump.”

Jesse immediately thought of the black SUV he had seen observing them.

“Well, thank you again sir,” Jesse repeated, “I am just trying to behave properly, and follow instructions until my time here is up.”

“Your time will likely be shorter than you expected,” the warden said, “that is if you agree to a deal which can be offered to you.”

“What deal is that sir?”

“The operation at Pelham Bay is to be expanded,” the mayor said, “and the administrator of the disposals would like good workers to work at the other sites. Workers such as yourself who can show others how the process is carried out.”

“I would be fine with that,” Jesse said, “you can bus me to wherever you like.”

“Your transportation will still be provided,” the warden said, “but not from here.”

“Am I being transferred to another facility?”

“No, Jesse. If you agree to this deal, you will be released. Transportation will be provided from your home.”

“Released?”

“That’s right, Jesse, as long as you agree to work at the new facility for the duration of your sentence. You don’t need to answer now,” the warden pushed the proposed contract across the desk to Jesse, “you can think about it.”

“I don’t need to think about it,” Jesse said, “I know right now I want to take the deal.”

“Fine then. Just sign the bottom, and your release will be processed.”

Jesse picked up the pen, but just as the tip hovered over the signature line, he hesitated and looked up at the warden.

“What is it Jesse?”

“My friends.”

“Your friends?” the warden looked a little disappointed, almost worried, “are you afraid you’ll miss your friends from Rikers?”

“It’s just that,” Jesse put down the pen, “there are two others who were doing the same work as me loading the bodies into the incinerators.”

“I see,” said the warden, “you want them to get the same deal.”

“Is that possible?”

“There is only one offer. The administrator specifically requested you.”

Jesse returned from the meeting with the warden just as the prisoners were being let into the yard to exercise.

“Everybody’s talking about your chat with the warden,” Virgilio said.

“What are they saying?”

“You know how it is in here. They think you must be cozy with him.”

“Who says that?”

“The Diamonds.”

“Any other gangs?”

“I only overheard them,” Virgilio said, “they think you saw them stab that guy in the shower last week.”

“And they think that’s what I was talking to the warden about?”

“You know how it is.”

“Look at what I caught,” Bull walked up to them and held out a fist. When he turned it over and unfolded his fingers, a crumpled butterfly fell out.

“Ya squoze it too hard,” Virgilio scolded him.

“Maybe it just had plague,” Bull replied.

“So what did the warden want?” Virgilio asked Jesse.

“Something about my case,” Jesse answered.

“Good news I hope.”

“It might be,” Jesse felt the contract in his pocket, “I have to think about things.”

The two men watched as Bull chased another butterfly around the yard.

“Do you think Bull might be better off in here than outside?” Jesse asked.

“It depends on what he’s got outside. Maybe he’s better here if he’s got no one to watch out for him.”

“No one like us?”

“Yeah.”

“What happens when we leave here?” Jesse asked.

Virgilio shrugged, “he’ll need other friends.”

“How about you?”

“What about me?”

“Would you leave him here?”

Virgilio looked at Jesse like he was crazy, “when they let you out, you gotta go. The only way they’ll let you stay is if you misbehave. Then they might send you somewhere else though. When they let you out you gotta go.”

The whistle blew, indicating that exercise time was over, and the prisoners filed toward the door. Once inside the building there was a long corridor which everyone had to file through which was visible from the guards’ perch above for all but a twenty foot stretch which passed under a foot bridge. As Jesse stepped under the bridge, two men stopped him, one of them pushing him against the wall with a muscular arm which bore a diamond tattoo just above the wrist. The name Izzy was written inside the diamond.

“Stay still,” he showed Jesse an improvised knife in his other hand, while keeping his back to the other prisoners who filed past him, ignoring the altercation completely.

“You damn rat,” Izzy said from lips just in front of Jesse’s eyes.

“I didn’t say anything,” Jesse could hear his own voice trembling as the words came out.

Izzy’s partner pinned Jesse’s arms to his side as Izzy lifted the knife toward Jesse’s stomach.

“Look, Jesse, I caught another one,” Bull smiled proudly over Izzy’s shoulder as he opened his fist to reveal a stunned, but live butterfly.

“Move along you fool,” Izzy showed Bull the knife.

“You let my friend go,” Bull said, not at all afraid.

“Damn your stupid pet,” Izzy growled as he plunged the knife through the butterfly and through Bull’s hand so that the tip protruded from the back.

Bull’s reaction was not to pull away, but to close his huge hand around the knife and Izzy’s hand. Izzy at first tried to pull away, but soon sunk to the floor in agony as the crunching of his hand bones could be heard. Bull opened his hand to let Izzy finish falling and looked at the incandescent blue scales from the insect’s wings which were now smeared around the base of the knife. He pulled the knife out of his hand and looked at the man holding Jesse, who immediately released him and ran back out into the yard.

“Drop the knife,” Jesse told Bull, “you don’t want to be caught with it.”

“It was just a poor little butterfly,” Bull stroked the blue scales with one of his huge fingers.

“Come on,” Jesse led Bull toward one of the guards, “tell them you fell on that broken sign post when they take you to the infirmary. Don’t say anything about the knife, or Izzy or me. Go now,” Jesse pushed him toward the guard and walked on to his cell.

In his cell, Jesse looked at the contract he simply had to sign in order to be immediately released from Rikers. The next day he told the warden he could only accept the offer if Bull and Virgilio got the same deal.

Detective Ed Thomson had investigated a lot of homicides in his thirty years with the New York City police force, so he was usually pretty good at establishing patterns quickly when he visited a crime scene. But you did not really need much experience to conclude the murders at The New York Shout were executions. A white male with rather shaggy brown hair and a moustache wearing a blue blazer and sun glasses had walked into the newsroom and asked for Libby Phillips, and as soon as they were introduced, pulled out a pistol and shot her once in the middle of the forehead, then once again in the side of the head as she lay on the floor. When the editor ran out of his office to confront the shooter, the assassin put a new mouth under his left eye and put a new ear behind his right one. The killer then walked past the cowering staff and calmly left the room. The only thing distinctive the witnesses could remember was that from the few words he spoke, he had a strange way of talking and a possible foreign accent.

“I knew we should have had a security guard downstairs,” a witness sobbed.

“Then you would have just had three dead bodies,” Detective Thomson said matter-of-factly, popping an antacid into his mouth.

As the forensics crew sealed off and analyzed the crime scene, Ed interviewed the witnesses. When he asked if Libby had any enemies, several of the staff mentioned the dramatic and emotional exit of Brooke after she had been fired by Freddy. Besides that, it was hard to tell if someone might have taken offence at something she wrote. At that point, from the accounts, it sounded like the editor was killed just because he interfered. Thomson had some officers request recordings from the security cameras of adjoining businesses, and asked to view a list of the reports Libby had filed, sorted by the most recent ones first. Right at the top was the report on the Staten Island Dump.

It was difficult to see what in that report might have driven someone to kill Libby Phillips. It was true she was publicizing a new initiative by the city to dispose of the plague victims, an initiative the city apparently wanted to keep as quiet as possible, since they had not made any announcement of their own. But politicians are used to that kind of heat. All Gone Incinerators was also mentioned in the article, but not at all in an incriminating way. Ed Thomson put the Mayor’s office and All Gone on the list of those he wanted to question more deeply. The detective placed those possible suspects however, well behind Brooke Daniels in interest. He was going over the videos gathered from security cameras near the crime scene, when Brooke Daniels arrived at the precinct and was brought to an interrogation room.

“Thanks for coming,” he said, “we’re trying to find whatever information we can about the murders of Mister and Mrs. Fenkman.”

“Who?” Brooke thought he had confused the cases,

“The murders of Fred and Libby Fenkman in the newsroom of the New York Shout,” he said as he turned on the screen of a laptop he had brought to the room with him.

“You mean Libby Phillips?”

“That was the maiden name which she used at work,” Thomson brought up the crime scene photos and showed them to Brooke, who looked away.

“You mean they were married?” Brooke asked.

“For seventeen years,” the detective said, “who do you think might have done this to them?”

Brooke just shook her head. So they were not having a steamy affair, they were just a couple in love.

“I understand you were fired right before it happened.” Thomson stared at her.

“We had a disagreement about a story.” She said.

“People in the newsroom remember it as being a very loud disagreement,” Thomson navigated to a video of the street in front of the office. The frame was frozen, and Brooke was looking up at the building, “that’s you, right?”

When Detective Thomson played the video, Brooke could be seen making an obscene gesture and yelling something up toward a window.

Brooke stared at the video, “Wait a minute,” she suddenly said, “can you replay that?”

“What is it?” Thomson asked. He grimaced as his heartburn acted up again, and tossed an antacid in his mouth.

Brooke hesitated for a second, before saying, “Yeah, that’s me.”

“Looks like you and the others didn’t part on the best of terms,” he said.

“No, we didn’t.” Brooke said. “Do you have any video of the killer?” she asked.

“Just a minute,” Thomson switched to a recording from the same angle several minutes later which showed a man with shaggy brown hair and a moustache and sky blue blazer walk up the sidewalk from the direction the SUV had gone, then cross the street. A minute later, terrified people Brooke recognized from the office ran out the door.

“I didn’t see him leave.” Brooke said.

“No,” Thomson said, “But he might have looked different. We found these in a trash can near a stairwell.” He opened a box to show Brooke a brown wig and moustache.

“I get the feeling you think I’m involved.” Brooke said.

“You’re the only one anybody in the office could think of who might have had a motive,” he said.

As Brooke stared at the screen, Thomson replayed the first clip showing her yelling at the building and watched Brooke for a reaction, “What is it?” he said as she stared at the video.

“What?” Brooke looked up, “oh, I just never realized I was so photogenic.”

Thomson switched to Libby’s broken head, “She probably used to be too.”

Brooke looked down at the table.

“Some people say you were angry because she stole your story,” Thomson said, “maybe they killed the wrong person.”

“Can I leave now?” Brooke asked.

“Sure,” Thomson stood and opened the door, “here’s my card if you think of anything else which might be helpful.”

Brooke walked around the corner and saw her old office building was still taped off for crime scene investigation. The window to Freddy’s office had a bullet hole in it and red spatter on it. Her phone rang as she was looking at the façade.

“Hello, this is Doctor Jane Simmons. Mike Carter told me about your investigation.”

“Oh, thanks for calling,” Brooke said, “I had some questions about someone Bellevue hired. Is there somewhere we can meet?”

“I’m actually in Atlanta now,” Jane said, “Mike told me what you were wondering about.”

“Maybe we shouldn’t say much on the phone.” Brooke said, surprised by her own caution.

“There is a member of my staff who might be able to help you,” Jane offered, “I’ll give her your number if that’s okay. Her name is Lucy Chao.”

Feeling exhausted, and needing a shower, Brooke bought some necessities and made her way to Mike’s apartment. Walking along the sidewalk she realized how she had grown accustomed to the way the city was adapting to the plague. About half of the people in the street were wearing protective face masks, and it had become quite a common sight to see ambulance crews in hazmat suits removing people from buildings, to be taken either to one of the incinerator sites if dead, or if still alive, to a hospital. A disinfecting crew would be waiting for the ambulance to leave so they could treat the room from which the body had been taken. But the city wide panic and paranoia of the first days had been replaced with a resigned philosophy to get on with life. It seemed the plague had devolved into a daily nuisance to be complained about like bad weather.

As Brooke turned the key in the door to Mike’s apartment, a sweet looking little old lady came out of the next doorway.

“I’m Mrs. Arley,” she introduced herself, “are you the new tenant?”

Brooke just smiled at her.

Mrs. Arley leaned closer to her and lowered her voice. “You should know that someone died in there,” she said, “from the plague.”

“Thank you,” Brooke said, “did you know the last tenant?”

“Oh yes,” Mrs. Arley answered, “a good looking young man, it is so terrible about what happened.”

“When did he die?” Brooke asked.

“Oh no, he didn’t die. It was his girlfriend,” Mrs. Arley giggled and touched Brooke’s arm, “so he’s available if you want me to call him for you.”

Brooke thanked her, but declined the offer, then she entered the apartment, trying to decide what to do next. She thought about calling Detective Thomson and mentioning what she had learned about Gordovsky and Potemkin, but then she was worried about exposing Mike and Elena to more danger, and that Thomson’s subsequent questioning of Gordovsky might somehow trigger him to target her. On the other hand sitting and waiting could just give them time to figure out she was the one who actually wrote the story, and also give them time to find her. As she was mulling which way to go, her phone rang.

“Hi this is Lucy Chao, Jane Simmons asked me to call you.”

“Oh hi. She told me you might have some information related to my investigation.”

“I might,” Lucy said, “Can we meet somewhere and talk about it?”

“Yeah, sure,” Brooke said, “I’m not sure what’s the best place though. Our apartments might not be such a good idea.”

“I agree. I was just headed down to Chinatown for something to eat,” she said, “do you know Hop Kee restaurant?”

“The one in the basement?” Brooke put her worries aside at the mention of her favorite restaurant, “I love the snails there.”

“Great,” Lucy laughed, “if you like to eat the snails, I know I can order whatever I feel like. I’ll see you there in about a half hour. I will have a blue bow in my hair, and be sitting in the back room.”

Brooke’s reaction when she met Lucy was that although she sounded very young on the phone, she looked even younger in person. She would have taken her for a high school student rather than a doctor.

“Hi,” she smiled cheerfully, “I’m happy to meet you,” she waved to a waiter and started talking in Cantonese.

“I ordered the snails,” she told Brooke, “is there anything else you want?”

“I leave my stomach in your hands,” Brooke answered.

“I’ll order some of the tripe, and some stuffed chilies,” Lucy said a few more words to the waiter, “you look like someone who can handle spice.”

“So what do you do at Bellevue?” Brooke asked.

“I worked for Jane in the Medical Examiner’s Office,” Lucy answered, “I guess she told you.”

“To tell you the truth,” Brooke said, “I don’t even know Jane. I just spoke to her once on the phone. My main contact for Bellevue is Mike Carter.”

“Oh, Mike,” Lucy said, “I only knew him a little. But Jane said I should cooperate with you as much as I can. Here come the snails. You know how to eat them, right?”

“I just pull them out with the toothpick,” Brooke said.

“That will work,” Lucy said, “but if the backs are filed properly, you can usually just suck them out like this.”

She held one to her mouth and made a slurping noise which ended in a kind of soft thwacking sound, “Discarding the foot pad of course,” she removed the tiny black oval from her mouth and placed it on the corner of her plate. “They’re fresh today. Not many places are left like this in Chinatown. It’s getting to be all trendy. Brooklyn is much better these days.”

“I started an investigation,” Brooke said after a sip of her Tsingtao beer, “and there seems to be some relation between what I was investigating and an employment agency which placed someone at Bellevue.”

“Who’s that?” Lucy shoved some tripe strips into her mouth.

“I don’t actually know who the person is.” Brooke explained, “but the company which placed him is called Potemkin Consulting. Do you know anything about them?”

Lucy shook her head, “I wouldn’t hear anything about that. It would have to be someone in human resources or administration.”

“I guess working in the Medical Examiner’s Office, you wouldn’t get involved with hiring temps,” Brooke took a bite out of one of the peppers stuffed with minced shrimp paste, wincing at the heat.

“Funny you should mention that,” Lucy said, “because after Jane was fired, an admin temp was put in charge of our department.”

Brooke put down the beer she had tried as a fire extinguisher for the chili, “How could an admin temp run the Medical Examiner’s Office.”

Lucy nodded, “That is a question which we’ve all been asking. He was put there supposedly just until a new examiner has been named.”

“So who does the autopsies then?” Brooke asked.

“The staff still handles the medical work,” Lucy placed another empty snail shell in the refuse bowl, “The temp, Stan Slovnick is supposedly just making sure things run smoothly. But we all think he’s Polopoff’s parrot.”

“Polopoff?” Brooke asked.

“The Health Commissioner, the one who fired Jane,” Lucy made a disgusted face, “gag me with a chopstick.”

“What kind of things does he do?” Brooke tried to pick up a snail with her chopsticks, but it bounced off the table.

“The first thing he did was suspend the phage therapy,” Lucy said.

“What’s a phage?”

“It’s a treatment for the plague,” Lucy explained, “it was invented by this genius named Klarkopf. It has been effective in every cases where we administered it.”

“So what are you trying now instead?” Brooke asked.

“Basically nothing, since antibiotics don’t work,” Lucy’s exasperation came through, “we’ve just been treating the symptoms.”

“I don’t understand how antibiotics can stop working,” Brooke said, “I thought they cured any infection.”

“Well for one thing,” Lucy said, “they don’t work against a virus.”

“Is that what plague is?”

“No it’s a bacteria,” Lucy replied.

“So they don’t work against them either?” Brooke asked.

“They only work against bacteria.” Lucy smiled as she saw the confusion on Brooke’s face.

“So what’s the problem?” Brooke knew she had missed something.

“Well imagine there are a million rats running around inside a football stadium,” Lucy said, “and there’s this really fast guy with a stick, who’s chasing them and whacking them with that stick trying to kill all of them.”

“Ok.”

“Well if you’ve got a million rats and one guy running after them with a stick, killing them all,” Lucy explained, “one thing you’ll end up with is a lot of dead rats.”

“And a very tired guy with a stick,” Brooke said.

“So let’s say this guy kills almost all the rats,” Lucy continued, “but there are still a hundred left which are so fast he can never catch them. What do you think their babies are going to be like?”

“When did they find time to have babies with that guy chasing them?” Brooke asked.

“Their babies will be really fast,” Lucy said, “so fast the guy can’t catch them. If you imagine the rats are a bacteria, and the guy’s an antibiotic, then the ones surviving are the resistant bacteria.”

“I think I got it,” Brooke said, “so you have to find another way to kill them, like maybe a guy with a flamethrower.”

“Exactly,” Lucy said.

“And the phage is our flamethrower?” Brooke asked.

“That’s right,” Lucy said, “and that will work until the rats become fireproof, then you have to find something else.”

“Sounds like there’s no end to it,” Brooke said.

“There isn’t really. But the more you use the antibiotics, the quicker the resistance develops.”

“So why don’t you use the phages?” Brooke asked.

“We’ve been stopped from using them,” Lucy said. “that’s why we just treat the symptoms.”

“I don’t understand how something like that can happen.” Brooke said.

“We can’t figure it out either,” Lucy replied, “it’s almost as if Polopoff has some interest in seeing the plague epidemic continuing.”

Brooke had decided the best way to protect herself after the murders was to build a complete account of the incinerator cremation plan and continue to investigate Potemkin’s connection to City Hall, albeit with as much discretion as she could manage. Her first step was to try and interview the Rikers Island inmates who had volunteered to dispose of the plague corpses. Once The Shout broke the story that the city was burning the bodies of plague victims and disposing of the ashes in the landfills, the mayor’s office became more transparent, describing the program in more detail and announcing it had been an oversight not to have made the operation more public. When Brooke asked for access to the inmates, the city readily agreed.

Though Rikers Island was the first prison Brooke ever visited, she knew its reputation. Notorious for abuse and neglect, it has been listed as one of the ten worst prisons in the United States. Its inmates consisted of those awaiting trial who could not make bail as well as those serving a sentence of less than one year or those pending transfer to another facility. There were often stories in the local newspapers of beatings, sexual abuse, and deaths due to neglect of medical conditions. Brooke therefore entered the institution with a certain amount of trepidation, and was led to a visitors section where she waited for the inmates to arrive. Finally the door opened and three men were led in by a guard who remained in the room.

“I want to thank the three of you for agreeing to come to this interview,” Brooke greeted Jesse, Virgilio and Bull as they sat down across a table from her.

The three inmates nodded politely, though Bull required a corrective jab from Virgilio to stop him from gawking at Brooke.

“Can you give me an idea of what your day is like?” Brooke asked.

“Well first I brush my teeth…” Bull began before another jab silenced him.

“Once we arrive at the dump – I mean landfill,” Virgilio took over, “we receive the departed as they arrive.”

“Stacked like logs,” Bull interjected.

“We place them in one of the incinerators,” Virgilio continued.

“And when they’re done cooking,” Bull said, “we take them out.”

“Show some respect,” Virgilio said to Bull though clenched teeth, then looked at Jesse, “I don’t know why we brought him.”

“And then?” Brooke asked.

The men looked at each other.

“Actually, that’s pretty much it,” Jesse said, “except it goes on like that all day.”

“Is there any activity besides that?”

“There’s the porta toilets,” Bull said.

“You know, you just best shut up.” Virgilio scolded him once more.

“And why did you volunteer?” Brooke asked.

“We get time off our sentences for doing it.” Virgilio said.

“That’s right, ma’am,” Jesse added, “we’ll be eligible for release within the next few days now. It’s a special ‘Plague Pardon’ because we’re helping.”

“That’s great,” Brooke said, “but it does seem kind of a strange coincidence that you all will be getting out together though.”

“Well the deal is, we do Bronx-Pelham from Rikers and then they release us with jobs doing the same thing in Jamaica,” Jesse explained.

“Who will you be working for then?” Brooke asked, “the city?”

“Oh no,” Virgilio said, “some outfit runs the whole thing for the city, you got the paper Jesse?”

Jesse pulled out a document from his back pocket, “here it says we’ll be working for an outfit called…”

“Can I see that?” Brooke reached out for the paper, but Virgilio stopped Jesse from handing it to her.

“Didn’t he say it was confidential?” Virgilio said to Jesse.

“Oh, yeah that’s right,” Jesse put the paper back in his pocket.

“Who told you that?” Brooke asked.

“The warden,” Jesse said, “But I know it came from the guy in the black car.”

“He came to the prison?”

“No,” Jesse continued, “he drove up one day to the top of the dump, and just sat there with his tinted windows rolled up watching us for a while. Then he contacted the warden.”

“What did he look like?” Brooke asked.

“We didn’t get a very good look at him,” Virgilio said, “he just sat there watching with the dark windows closed.”

“It must have been hard for him to drive up to the top of the dump in his car.” Brooke remarked.

“Not really,” Jesse replied, “he had an SUV.”

Brooke left her phone number with the men, telling them to contact her if they thought of anything more to add. She was intending to return to Mike’s place and continue research for her investigation, when she remembered Mike had never brought her the computer which she had requested from her Roosevelt Island apartment. At first she thought of calling him, but then decided to go herself to make sure she picked up everything else which she needed.

In and out quickly, she told herself as she opened the apartment door. She found the laptop lying on the kitchen table and then went into her bedroom to look for the carrying case. She was rummaging through the closet when she heard the sound of something rattling in the front door lock.

She started to step out of the bedroom to greet Mike, to whom she had given a key, when the front door opened and a hooded figure dressed in black entered. She quickly stepped back into her closet, and tried to hide behind the clothes hanging there. As the footsteps passed onto the tile bathroom floor, she opened the closet door slowly and was contemplating making a run for the front door, when her cellphone rang. The noise in the bathroom stopped as though the intruder were listening to try and detect where the phone ring was coming from. Brooke quickly put the phone on mute and closed the closet door again. She then heard footsteps entering the bedroom where she was hiding. At first the steps went over to the dresser and Brooke could hear the sound of the drawers opening and shutting. She also heard what sounded like the blanket on her bed being pulled back. When the intruder came closer to the closet, Brooke felt behind her for something she could use as a weapon, but her hand simply fell on the wall. As the knob on the closet door turned, she pulled the laptop up in front of her as though she could somehow hide herself behind that. But before the door opened the front door bell rang, followed by loud knocking.

“Miss Daniels?” a man’s voice called, “this is Detective Thomson. I need to talk to you.”

Brooke heard the sliding door to her bedroom balcony open, and steps on the outside concrete surface, as the intruder left that way. Her first reaction was to let the detective in, and tell him everything, asking for protection, but then she hesitated. Perhaps he had a warrant and would confiscate the computer she had her notes on. She checked her phone and saw the missed call had come from Detective Thomson. She finally decided to not let him in, but get back to him later from another location. She waited fifteen minutes, then carefully sneaked out of the apartment and hurried out the main entrance. At first she intended to use the subway, but decided the tram was less likely to be watched, and so took that back to Manhattan. While she was dangling over the East River she called Mike Carter.

“I don’t know where to go,” she told him, “someone broke into my apartment while I was there.”

“Are you all right?” he asked.

”Yeah, he got scared away when the police came to the door.”

“The police?” he said.

“That’s right,” Brooke seemed to shout and whisper at the same time, looking over her shoulder at the other passengers, “it’s getting really crazy.”

“For me, it’s about to get even crazier.” Mike said.

“Why?”

“I just got a notification I’m being picked up to go to Bellevue. Elena has just been admitted with the plague, and Gordovsky wants my blood.”

“When you meet Doctor Foster on Plum Island,” Tony Ribacci said to Frank Skorzeny across the conference room table, “I want you to just gather the facts. Make no commitments, and by no means assist her in any way until you report to me.”

Frank nodded.

“I want to follow procedure to the letter now,” Tony stressed. He looked at his watch and then spoke to Jane, who along with Catsi were also attending the meeting, “I was hoping Klarkopf would be here for this so I don’t have to repeat it. Has anyone heard from him?”

“He probably just overslept,” Jane said, “He looked pretty tired yesterday.”

“Yeah,” Tony said, “I appreciate all the work you guys have done. How do we stand with the research?”

“Still working our way through the various phages,” Catsi answered, “we’ve eliminated a lot of candidates but have yet to achieve a positive result.”

“Have you had any luck on the political side,” Frank asked Ribacci.

“I actually have started well with Gruenlicht,” Tony replied, “the contact Rudi gave me would like to help, but we need to negotiate arranging for Rudi to return and assist them. The circumstances of his dismissal complicate that.”

“How about Bellevue?” Jane asked.

Tony smiled and shook his head, “I’m pretty much getting stone walled there. This Polopoff guy doesn’t return any of my calls. But from what you told me about him, that ought not to be a surprise.”

“He told me he filed a complaint against me,” Frank said.

“I haven’t heard anything,” Tony answered, “and I would have, no matter how high up it was lodged, so I’m thinking that was just a lot of BS.”

“Do you think the phages are safe with him?” Tony asked Jane.

“I’d like to think so,” Jane said after a moment’s hesitation, “but from the reports I’ve been getting, he seems to have just stored them away.”

“So how are they treating the patients?” Tony asked.

“They continue to administer the indicated antibiotics,” Jane replied, “even though they know they won’t work.”

“What time is your flight?” Catsi asked Frank.

“Oh, you’re right,” Frank looked at the time on his phone and stood up to leave.

“Remember,” Tony told him as he opened the door to leave the office, “just gather information and report back.”

Frank nodded as he listened to a voicemail, while closing the door behind him.

“I hope Rudi gets here soon,” Catsi said, “I need his input on how to proceed.”

“It is kind of unusual for him to disappear like that,” Jane took out her phone, “let me give him a call.”

Before she could dial, however, Frank returned to the room and spoke in a wavering voice, “The hospital called,” he said, “Rudi was admitted this morning. The symptoms sound like plague.”

Frank started to leave the room again.

“Don’t go there Frank,” Tony said.

“I need to see if I can help,” Frank replied.

“I understand,” Tony said more gently, “but we must stay focused. It’s important you go to Plum Island. We can take care of Rudi.”

“Go ahead,” Catsi said when he saw Frank hesitate, “I’ll go see him.”

“And I’ll join you,” Jane said.

“Not both of you,” Tony interrupted, “the work here can’t stop.”

“Then it had better be me,” Jane said, “if it comes to that, I’m the one who can give him a transfusion.”

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When Aleksey delivered Mike Carter to Bellevue, he was met be Doctor Lucy Chao to be escorted upstairs.

“Have you recovered from your previous transfusion yet?” she asked.

“I feel okay,” Mike shrugged, “though I was told I should not donate again for several weeks.”

“Don’t let them force you to do anything you don’t want to do,” Lucy said right before the elevator door opened.

On stepping out of the elevator, Mike was immediately greeted by Commissioner Polopoff, whom he had until that point only seen, and never spoken to.

“Welcome back, my friend,” he shook his hand heartily, “it is so kind of you to come volunteer to help us.”

As he was shaking Polopoff’s hand, Mike saw Gordovsky emerge from what used to be Jane Simmons’s Medical Examiner office. Stan Slovnick, whom he did not know, came out with him. Mike was impressed at how composed Gordovsky’s looked in light of his daughter’s condition.

“I am so grateful you could come and help save my poor daughter,”

“I am glad to help,” Mike said, “but I understood my blood would not be very useful if I gave it so soon again.”

“It seems you are our only hope,” Gordovsky said, “the other donors are not of a safe blood type for my dear Elena to receive.”

“I will do what I can,” Mike said, “but I thought the phage therapy had been proven most effective.”

“What is this phage therapy?” Gordovsky asked.

Mike glanced at Lucy, and then at Polopoff, whose face grew quite red.

“Pawel?” Gordovsky said.

“This was quite an experimental treatment which we tried on a few patients,” Polopoff said, “but without success.”

Gordovsky looked at Mike, then Lucy and the other doctors who were present, “Is this true?”

“I am not a doctor,” Mike said, “but I understood it gave good results.”

“It was quite effective,” Lucy said, “more so than the blood transfusion.”

Gordovsky looked again at Polopoff, and there was an exchange in Russian during which Gordovsky’s voice grew steadily more assertive and Polopoff’s meeker. Finally Gordovsky turned back to Lucy.

“Is it true, what he is telling me?” he asked her, “that all the phage solutions were destroyed?”

Lucy looked a bit uneasy, “the Commissioner ordered they be turned over to Mister Slovnick here.”

At this Gordovsky’s gaze fell on Slovnick, who looked like he wanted to evaporate.

“I disposed of them as the Commissioner ordered,” He squeaked.

Gordovsky mumbled something in Russian in a tense tone before returning to English, “So the best hope to save my daughter has been destroyed.”

“Not completely,” Lucy said.

When she spoke those words, everyone in the room turned to her.

“I kept some in the backup refrigerator,” she said.

Gordovsky looked at her with an expression more of surprise than of relief, before turning to Polopoff and directing a long series of what sounded like very precise instructions to which Polopoff continuously nodded in agreement. Finally Polopoff declared that the sequestered phage solution would be administered to Elena as quickly as possible. In fact he would personally take over her care and administer it himself. During all the commotion of the doctors interacting, preparing the solution and preparing Elena, Mike sat in the corner ignored but observing. At one point Gordovsky, Polopoff and Slovnick stepped into Jane’s office. When this happened, Mike noticed a Russian speaking staff doctor named Yuri whisper something in Lucy’s ear. She hesitated for a moment, then after finishing the task she was doing, walked up to Mike, looking over her shoulder in the direction of the Examiner’s Office before she spoke.

“I am going to suggest to them that you go rest,” she said, “in case your blood might be needed.”

“That’s very kind of you,” he began, “but…”

She shook her head vigorously, indicating she had another point to make, “I am preparing an important package for you to take with when you leave. It will be waiting at reception downstairs, and needs to be refrigerated.”

Gordovsky and Polopoff returned to the room as she quickly added, “Don’t say anything here about it, and get it to a safe place. Not where they can find it,” she indicated with her head toward the Russians as she spoke this last sentence.

“Certainly,” Gordovsky replied to the suggestion that Mike leave and rest, “it would be best if you replenish your energy in case we need that transfusion. I will have Aleksey bring you to your apartment.”

“That’s okay,” Mike waved off Gordovsky’s offer, “I could use the fresh air.”

Mike then left the unit where Elena was being treated and picked up the package Lucy had told him about. It was a large insulated container with a shoulder strap, and was quite heavy. Once in the street he walked around the corner and sat on a bench to call Brooke.

“I have an important package which I need to hide somewhere in a refrigerator,” he said, “I was thinking of your apartment.”

“No!” Brooke yelled into the phone, “they are watching it.”

“I’m not sure what to do with it,” Mike replied, “she said to keep it away from Gordovsky, so I’m afraid to bring it to the apartment he gave me. How about in my old apartment where you’re staying? Eventually I could pass it on to Jim in Princeton.”

“I guess there is no choice,” Brooke said, “but don’t come here yourself.”

“So where do I pass it to you?” Mike asked.

Brooke thought for a moment, “Do you know the Marble Cemetery?”

“The one with the hidden gate on Second Avenue?” Mike asked.

“Yeah,” Brooke answered, “that’s pretty close by, and it’s not too conspicuous.”

By the time Mike pushed open the wrought iron gate and walked down the hundred foot alley into the Marble Cemetery, Brooke was already waiting on a bench. Completely hidden from the street, the inner walled courtyard provided a place for them to meet where they did not have to worry about being observed. Mike walked along the deteriorating soft marble wall with the container and sat down next to her.

“It’s kind of heavy,” he said, “think you can manage?”

She lifted it with both arms, “Ugh, you’re not kidding. It’s a good thing it’s not too far to the apartment.”

She looked around, “This is about the least creepy cemetery you can imagine. Where are the tombstones?”

“The bodies are in vaults,” Mike said, “under our feet.”

“Oh,” she looked down, “it is creepy after all.”

“What are you giving me?” she asked, “and why is it so important?”

“I wasn’t actually told,” Mike answered, “but I think it is phages. The cure for the plague.”

“You’re kidding,” she said, “what am I supposed to do with it?”

“The Health Commissioner, Polopoff tried to destroy it all,” Mike explained, “but fortunately a doctor at Bellevue, Lucy Chao, hid some.”

“Lucy?” Brooke said.

“You know her?” Mike was surprised.

“Yeah, through Jane Simmons. But why the secrecy?”

“I’m not sure,” Mike said, “they used it to treat Elena. Gordovsky has some connection with Polopoff which Lucy found out about. She sneaked this out with me.”

“How did Elena look?” Brooke asked.

“I didn’t actually see her,” Mike responded, “by the time I arrived, she was already isolated.”

“Let me give Lucy a call,” Brooke said, pulling out her phone.

“Okay,” Mike said, “but I need to go. I told them I’d rest in my apartment in case I need to give blood. I don’t want them to start looking for me.”

The phone call to Lucy went to her voicemail, so Brooke started to carry the bag back to where she was staying in Mike’s apartment. Cemeteries, blood donations, plague cures, Russian Mafia were all running through her mind as she lugged the heavy container the few blocks to Orchard and Broome. Just go to the police, she told herself. As soon as she put the contents of the bag in the refrigerator, she was going to call Detective Thomson to come and get it. She felt relief and a certain serenity in having reached the decision, but that serenity dissipated when she turned the corner onto Orchard Street and saw Ed Thomson standing in front of her apartment. He was talking to the heavy man from the next door apartment, and also to another man leaning out of the black SUV.

Brooke immediately ducked back around the corner, wondering what to do. Does Gordovsky own the police too? Now she had nowhere to go, plus was responsible for the cure to an epidemic which was threatening the world. Then her phone rang.

“Brooke? This is Lucy. I don’t have much time. I just spoke to Mike who told me he gave you the package.”

“What am I supposed to do with it?” Brooke heard the tremor in her own voice, “they’re watching my apartment.”

“You must get it to Jane,” Lucy spoke very quickly, but softly, “you have her number. I have to go now, they’re coming back.”

After hanging up, Brooke was searching through her contacts for Jane’s number when she received an incoming call.

“Brooke?” a man said, “this is Jesse.”

“Jesse?”

“From Riker’s island. Remember you interviewed us?”

“Oh, yeah,” Brooke saw her battery was almost depleted, “this is not really a good time.”

“Oh, okay,” Jesse said, “you wanted us to call when we got out.”

“That’s great,” Brooke said, a warning tone told her the phone would shut off soon, “can I call you back?”

“Sure,” Jesse said.

“Wait,” Brooke suddenly yelled, “where are you now?”

“I’m staying at my Granny’s in Alphabet City.”

“I mean *right* now,” Brooke said quickly.

“I’m sitting in the Zum Schneider Biergarten at…”

“I know where it is,” Brooke said, “I’ll be right there.”

Brooke hung up, and resumed the search for Jane’s number when her phone died. It took her twenty minutes to walk up to Zum Schneider with the pack over her shoulder. She found Jesse seated at the end of the bar under a portrait of Crazy King Ludwig. He was sipping the last mouthful out of a glass liter mug. When she approached he smiled at her with a certain amount of caution.

“You look a little strung out,” he said, “you know I’m on parole.”

“Don’t worry,” Brooke flopped onto the stool next to him, “I’m not high, just having a hectic day.”

“So, you asked me to call you when I got out,” Jesse started.

“Yeah, I wanted to follow up on that outfit you’re working for,” Brooke looked around the bar, “is there someplace else more private we can go?”

“Uh, the only place is my Granny’s,” Jesse said, “down the block.”

“Does she have a refrigerator?” Brooke asked.

“A refrigerator?”

“Yeah,” Brooke answered, “I’ve got some medicine here which needs to be refrigerated. Can I leave it there while we talk?”

“I don’t want to get involved with drugs or anything,” Jesse said, “like I said I’m just out of jail.”

“Oh, it’s all perfectly legit, look,” she opened the case and took a bottle of the solution out so he could see the Bellevue label.

“Are you ordering something, Miss?” the bartender asked, his thumbs in the suspenders of his Lederhose, “You’re not allowed to bring your own drinks in here.”

“We were just leaving,” Jesse stood and led Brooke out the door and up Avenue C.

“Thanks a lot,” Brooke said, “The refrigerator at my place is broken, and I need to keep this cold.”

When Jesse led Brooke down the steps to the basement apartment of his grandmother, the old lady opened the door before he reached it.

“Oh, how nice,” she said, “you brought a lady friend.”

Brooke smiled weakly, “sorry to disturb you, ma’am.”

“Just call me Ethel,” she responded, “have a seat, you look exhausted.”

Brooke flopped on the couch.

“She’s a reporter, Granny,” Jesse said, “doing a story about me and the others working at the dump.”

“Oh, how interesting,” Ethel looked at the bag of medicine, “is that your equipment, camera and things?”

“Oh, no,” Brooke stood up, “it’s something I need to refrigerate. Would you have room for it?”

“Let me see now,” she opened the refrigerator and looked inside as Brooke opened the bag to show her the bottles, “you do have quite a lot.”

“I’m sorry,” Brooke said, “it’s just for the time being.”

While Ethel was busy finding space for the phage bottles, Brooke took out her cell phone and showed it to Jesse, “you wouldn’t have a charger for this, would you?”

Jesse shook his head, “I just have this simple model.”

“Lie down on the sofa, honey,” Ethel said, “you look like you’re about to drop.”

“Well maybe for five minutes,” Brooke said before lapsing into a deep sleep.

Unlike on his previous visit to Plum Island, this time Frank Skorzeny was asked by Cynthia Foster to meet on the pier at Orient Point. When he arrived he called her as instructed, and within a few minutes she arrived in a small boat.

“Thank you for coming out, Doctor Skorzeny,” Cynthia looked more haggard and perhaps less self-confident than she had the last time Frank met her.

“You can call me Frank,” he said, boarding the launch, “how did you manage to get the plague on Plum Island?”

“It’s a big mess, Frank,” her voice quavered before she regained her composure, “can I be honest with you?”

“That would be wonderful,” Frank responded.

“We were very interested in studying the plague bacteria here,” she started.

“I gathered that from our brief discussion the last time I came here,” Frank said.

“Sorry if I was a bit intense then,” she said, “but you can imagine how critical it is for Homeland Security to stay on top of a microbe with this potential.”

“It seems there is still a lot more going on here than what the official version gives.” Frank’s eyes involuntarily squinted at her against the brightly glimmering sea.

“That’s probably just as much the case for the CDC as it is for us,” she replied a bit defensively.

“Where are we going?” Mike noticed they had passed the dock on Plum Island.

“We have the island in a quarantined lockdown since the plague case occurred,” she answered, pointing to a military ship which was coming into view, “Once we started working with the resistant Yersinia pestis, we arranged to have the USS Bataan brought here. As a Wasp-class amphibious assault ship it is equipped as a small hospital with ICU beds. We brought Roger Devlin there.”

“Don’t you think he needs to be brought to a regular hospital?” Frank asked.

“Under the circumstances, that’s not possible,” Cynthia answered, “but that ship has operating rooms, a blood bank and a fully functioning laboratory.”

“This Roger Devlin was one of the researchers?” Mike asked.

“Actually no,” Cynthia answered, “he was involved in gathering samples.”

“Samples? From where?”

“In the early days of the outbreak, we were searching for samples of the plague to culture,” Cynthia explained, “we collected rats from the dog runs near where the plague started.”

“So that was you,” Mike recalled Jane thinking it was CDC personnel who were seen collecting the rodents.

“And later cadavers,” Cynthia said.

“Cadavers?”

“The details are not important at this point,” she said as the launch approached the Bataan, “we need to keep Devlin from dying.”

“What treatments have you tried so far?” Frank asked once they were on board and had started suiting up to enter the ICU.

“We’ve been going down the list of all the recommended antibiotics,” she said “streptomycin, gentamicin, doxycycline, levofloxacin, moxifloxacin and trimethoprim-sulfamethoxazole, but we already knew from our research that there was little hope of success with those.”

They walked into the ICU where Devlin lay gravely ill. It was a scene Frank had viewed too many times already. He had fever and buboes and ecchymosis was appearing on his skin.

“I know you have seen this before,” Cynthia said, as they left the ICU, “but can you think of anything we haven’t tried?”

Frank thought about what to reveal as he removed his suit.

“It’s just that,” Cynthia swallowed, and her eyes became wet, “I feel responsible for this. I pushed for this whole initiative. I don’t know what we did wrong. We followed all the precautions. At the summer barbecue I was talking to his wife, playing with his two year old daughter.”

“It might have had nothing to do with your procedures,” he reassured her, “people are getting infected everywhere. Let me make a phone call.”

Stepping on deck for privacy and better reception, he called Tony Ribacci.

“I don’t know what it makes sense to share with them,” Tony told Frank after he had explained the situation, “we still have not resolved access to the bacteriophages.”

“Are you any closer to a breakthrough?” Frank asked.

“With Bellevue, we’re clearly being ignored,” Tony answered, “Gruenlicht would probably let us access the lab, but they want Rudi involved.”

“How is he doing?”

“Jane just transfused some blood into him,” Tony answered, “it was also a huge hassle to get the hospital to agree to that.”

“Did it help?” Frank asked.

“It’s hard to say,” Tony replied, “but it might have bought him some time.”

“I think if we tell Cynthia about all this,” Frank said, “we might have a very strong ally pushing these things through.”

“I know what you mean,” Tony said, “Homeland Security can sometimes skirt procedures in the name of National Security. Go ahead, and bring them in on it.”

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After Ed Thomson had rung the bell at Brooke Daniels’s Roosevelt Island apartment and left the building when there was no response, he waited outside to see if she might eventually come out. When she finally did, he followed her until she got in line to take the tram to Manhattan. At that point he passed her description to an undercover officer who went to wait for her at the Fifty Ninth Street tram stop. That officer had been given instructions to follow her and see where she went. He reported to Ed that she entered a tenement in Orchard Street, but he did not follow her inside to see which exact apartment she went to.

While he did not stake out the apartment, Ed did drop by the building and wait an hour or so during those busy hours when people come and go, but never saw her. What the officer who tailed Brooke failed to tell Ed was that Brooke used a back entrance to the building, so Ed would not have seen her entering or leaving. It was on one of those occasions when Ed dropped by the building that he saw the black SUV parked illegally in front. He waited until two men exited and approached them to ask a few questions.

“Hey, Bud,” he said to the better dressed man who had just slid into the SUV, “Do you know the people in this building pretty well?”

“Not really,” he shrugged his shoulders as he answered in a Russian accent.

Ed showed them his badge in case that might elicit a more useful response. The Russian remained unflappable, but the other man, a rather slovenly large fellow, seemed to become nervous, “How about you?” Ed asked.

“Well, I live here,” Wally answered, “so I know a couple.”

Thomson took out a picture enhanced from one of the frames of the video showing Brooke yelling at the building after her firing. He showed it to the man in the car, who coolly shook his head without a word. When he showed it to Wally, the fat man glanced tentatively at Aleksey’s stone face, then also shook his head.

“I don’t know her,” Wally said, before turning and walking back into the building. Aleksey rolled up his window and drove off, and Detective Thomson started walking toward his car.

“Who are you looking for, son?” Mrs. Arley stood at the top of the stoop and called down to Ed Thomson, who turned around and climbed to the top of the stoop. The old lady put on her glasses and nodded at the picture.

“That’s the girl who took over Mike Carter’s apartment,” she said, “Brooke’s her name.”

“Who’s apartment?” Thomson asked.

“Mike,” she said it like everyone should know, “they drove him out because he brought the plague to New York. We all had to leave the building.”

“Can you show it to me?” he asked.

“I can show you the door,” she said, “it’s 2C, But I don’t have the key. You’ll have to talk to the landlord about that.”

“So this Brooke is renting it now?” Ed asked.

“Of course,” she said, “why else would she be here. Unless he lets her use it. But you’d think he’d come around once in a while.”

“What does she do,” he asked.

Mrs. Arley shrugged her shoulders, “she keeps to herself. Oh, she’s friendly enough, just doesn’t say much. And I’m pretty nosy. If she doesn’t tell me, she’s not telling anybody.”

Ed followed her up the stairs to look at the door to the apartment.

“Like I said,” Mrs. Arley repeated, “I can’t open it for you though.”

“Where do you live?” he asked.

“Right here.” She pointed to the door to the left of 2C, “and Wally, the portly gentleman you were talking to lives there.”

“What about the man he was with?”

“He doesn’t live here,” she said, “though he comes by every now and then and chats with Wally.”

She pulled Ed closer by his sleeve, “He gives me the creeps.”

After Ed Thomson left the Orchard Street apartment, he returned to the precinct to review the evidence he had gathered so far. The wig and fake moustache had been sent for DNA testing and the bullets and shell casings for analysis, but there were as yet no leads. He knew it would not be long before the victims would be buried, and the relatives would start pestering him for updates which would take a lot of his time. He would also have to sift through all the dead end leads the crackpots would call in. He still felt Brooke would have some useful information, even if she did not know it, but his calls to her went unanswered. He finally decided to review the videos which had been gathered from security cameras in the neighborhood.

Thomson started with the suspect entering the building. He was not a very large man, but strode up the front steps purposefully. Looking through videos from other shops, the first appearance of the man was when he exited a clothing store a couple of blocks away. The video had not captured him entering the store. He returned to the recording from the front of The Shout, and rewound it to see if he could tell where the man turned into that street. It rewound too fast so that he was once again viewing Brooke yelling up at the building. That was when he noticed the SUV passing in front of Brooke as she had her tirade, and realized it was very similar to the one he had seen in front of the Orchard Street apartment where Brooke had been identified by Mrs. Arley. This was also exactly the point where Brooke had asked him to replay the video for her. Thomson forwarded and reversed the video several times, until he had the frame with the clearest view of the license plate. It was still blurry however, but perhaps the forensics team would be able to enhance it into a readable image.

“Still having that heartburn?” Jerry O’Brien had stuck his head through the doorway of Ed Thomson’s office just in time to see him pop another antacid.

“Yeah,” Ed answered, “what’s up?”

“Some guy named Jim Carter walked in downstairs saying his cousin is missing.”

“I haven’t been first line contact for missing persons for twenty years,” Ed said in a grumbled.

“I know,” O’Brien replied, “we usually bring them to you when there’s a bit more evidence. But the central dispatcher for some reason thought it might be related to a case you’re working on.”

“All right,” Ed stood up stiffly, “I’ll go see him.”

These damn computers the dispatchers use are always making screwed up associations, Ed thought to himself. You just had to mention sushi, and it gets connected to Pearl Harbor. He walked to the front desk to meet Jim Carter, “What can I do for you?”

“When I called nine one one, they referred me here,” Jim said, “my cousin Mike is missing.”

“Why didn’t you call instead of dropping by?” Ed asked, these were just the kind of walk-ins which gave him that pain in his chest.

“I’d just arrived at Penn Station,” Jim said, “it was pretty close, so I walked down.”

“How long has he been missing?” Ed asked.

“A couple of days,”

“That’s a pretty short time,” Ed replied, “I’m actually not real sure why they referred you to me. What’s your cousin’s name?”

“Mike Carter.”

Ed stared at Jim as he remembered Mrs. Arley from the Orchard street tenement told him that was the name of the previous tenant of Brooke Daniels’s apartment.

“They actually referred me to you when I mentioned someone named Brooke Daniels might be involved.”

“Why don’t you come around back where we have more privacy.”

Ed led Jim into a room which he recognized from crime shows as an interrogation room with a one way window for viewing from the outside.

“How do you know Brooke Daniels?” Ed started.

“I don’t know her,” Jim said, “but Mike told me about a meeting with her and Elena Gordovsky.”

“Who’s that?”

“She’s the daughter of a Russian billionaire who gave us an apartment to stay in.”

Ed raised his eyebrows, “so you met this Elena?”

“No, just her father, Vasyli Gordovsky,” Jim said.

“The billionaire,” Ed replied. He would have thrown this guy out of the building already if he had not mentioned Brooke Daniels, “how exactly is Brooke Daniels involved?”

“Just that Mike mentioned meeting with her the last time I spoke with him.”

“Do you know how to reach Brooke Daniels or Elena… how do you spell her last name?”

“Here,” Jim took a pen and wrote it down, “I know where she lives, and also the building with the apartment they gave me and Mike.”

“So you lived there too?” Ed asked.

“No, I turned down the offer.”

“I see.” Ed said, “What about Brooke?”

“I don’t know anything about her except she’s a reporter for some little newspaper.”

“Did you try ringing the bell to your cousin’s apartment?” Ed asked.

“Not, yet,” Jim answered, “I just got off the train, and came straight here. He doesn’t answer his cell phone though.”

“Was there anything else he told you about the meeting?”

“Let me think, there was something,” Jim said, “Potemkin. He said Gordovsky owned a company called Potemkin.”

“Potemkin,” Ed wrote the name down, “just hang on here, if you don’t mind. I need to go check something.”

A few minutes later, Ed Thomson returned to the room with a tablet. He started the video of Brooke’s tirade in front of The Shout, “do you recognize anybody or anything in this video?”

Ed replayed the same ten second segment several times, but Jim just kept shaking his head.

“How about this woman?” he pointed to Brooke.

“No.”

“And this car?” Ed zoomed into the black SUV.

“Hold it,” Jim said, “that looks like the SUV which took us up to Gordovsky’s place.”

“Can you take me there?” Ed asked.

“Sure,” Jim responded.

As they left to drive up to the street where Gordovsky owned the buildings, Ed Thomson did not mention to Jim that the plate on that SUV was registered as belonging to Potemkin Consulting. He also did not mention that a search of the database for Elena Gordovsky revealed she had died that morning.

When Brooke opened her eyes and looked at the ceiling of the basement apartment, her first thought was that she felt remarkably refreshed for having slept only five minutes. The smell of fried eggs and cooking bacon were the first clues she had actually awoken in the morning after having slept the entire night on the sofa in the apartment of Jesse’s grandmother.

“Good morning, Sweetie,” Ethel greeted her cheerily.

“I’m so sorry,” Brooke said, “I didn’t mean to stay over.”

“No problem, Honey,” Ethel said, “I’m making some breakfast for you. You can get some orange juice from the fridge if you like.”

“Is Jesse here?” Brooke asked as she rose and stretched, rubbing her bleary eyes.

“Oh no,” Ethel answered, “he has to leave at four in the morning for his new job.”

Brooke wobbled over to the refrigerator, brought a container of orange juice to the table, and was about to sit down, when she suddenly stood up straight, went back to the refrigerator and opened the door again.

“Ethel,” she said, “where’s the medicine I put in here?”

“Oh, don’t worry, Honey,” Ethel slid the eggs from the pan onto a plate, “It was taking so much room, Jesse offered to take it to a friend’s place.”

Brooke blinked a couple of times into the refrigerator at the milk, butter, cucumbers and carrots lying where the phage solution was supposed to be, then pulled out her phone.

“Don’t bother trying to call him,” Ethel said, “he has to turn the phone off at work.”

Brooke remembered her phone was dead anyway, and her charger was still in Mike’s apartment with an extra one in the Roosevelt Island place. She sat down at the table staring at the eggs. If only she hadn’t bought that cheap phone with that hard to find charger connection. All her phone numbers were in there including Jane’s, Mike’s and Lucy’s. The only one she could not get out of her head was Libby’s.

“If you want,” Ethel went on, oblivious to Brooke’s anxiety, “I can wash those clothes for you. I got plenty in the closet you can borrow. Take a look.”

Brooke staggered over to the closet and looked through the frumpy clothes with flower patterns and long hemlines. Under normal circumstances she would not be caught dead dressed like that. This thought gave her pause, and she started to pick through the dresses.

“The shower’s just over there,” Ethel said, “pick what you want and change.”

A half hour later, Brooke climbed the stairs out of the basement apartment in what she hoped would be an unrecognizable disguise. Besides the loose fitting floral dress, she had found a sweater with buttons and a bandana to hide her hair. She had also borrowed a pair of John Lennon style sun glasses left over from Ethel’s flower child days.

Brooke had finally decided that she would go to her Roosevelt Island apartment to retrieve her phone charger. Mike’s place seemed to be under closer scrutiny, and she could not risk being recognized by any of the nosy neighbors, especially that creepy Wally guy. But she had to get in and out quickly. She didn’t want to take the tram again, in case it was being watched, and a cab would be too conspicuous, so she walked over to the Second Avenue F train station, not far from the Marble Cemetery where Mike had passed her the medicine bag. That would take her directly to the Subway stop on Roosevelt Island. Brooke found the most difficult part of her trip to be keeping Ethel’s loose dress from blowing up to her face on this particularly windy day as she walked from the Subway station to her apartment. She avoided the front entrance, and let herself into the back door by the laundry room and climbed the stairs to her floor.

Brooke felt her heart race as she put the key in the door and slowly pushed it open. In and out quickly, she told herself again, before walking into her bedroom and being confronted by a naked man.

“Dad!” she screamed, averting her face quickly.

“Oh, I’m sorry, Brooke,” he fumbled for a pillow to cover himself.

“Brooke!” her mother squealed from behind her and hugged her joyfully, fully indifferent to her husband’s chagrin as he ran out of the bedroom.

“What are you doing here?” Brooke stammered out.

“Didn’t you get the voicemail?” her mother stood back and looked Brooke over, “your taste in clothes has certainly improved. Stan, come in here and take a look at your daughter.”

Brooke’s father came back to the room in a bathrobe, “she looks the same to me, Mabel,” he shrugged.

Brooke’s mother just scowled at him.

“I’m sorry,” Brooke said, finding her phone charger and connecting it, “my phone died.”

“Staying over at a friend’s?” Brooke’s mother asked with a sly smile and a wink, “a boyfriend, I hope.”

“Yeah, kind of,” Brooke answered as she looked through her closet, “how long are you here for?”

“A couple of days,” Mabel said, “then we’re catching a flight to Paris. Though I’m not looking forward to all that new airport security.”

“A couple of days,” Brooke mumbled, almost to herself, before looking at her mother, “do you have another place to stay?”

Mabel put her hands on her hips and frowned, “what kind of a welcome is that? Besides, you know our deal.”

“That’s right,” Stan said, “we’re hardly here, but it has to be available when we need it.”

“It’s just that,” Brooke grasped for a pretext, “I scheduled some painters to come.”

“Well, you’ll just have to reschedule them then,” Mabel said, “but not in three weeks’ time when we’ll be coming back from Paris.”

Brooke was thinking about whether her parents would be safe in the apartment, when beeps from her reactivated phone indicated she had several voicemails, texts and emails. She thumbed through them as her parents went into the other bedroom to continue settling in. Jane had tried to reach her, as had Detective Thomson, several times, and there were also messages from unknown numbers. But there was nothing from either Mike or Lucy.

“This refrigerator is putrid,” her mother called out from the kitchen, “I’m throwing everything out.”

The messages from Thomson were the same persistent requests for her to call him. Jane, without revealing too much over the phone, stressed how critical it was that the ‘present’ her colleague had given her be passed on to the intended recipient as soon as possible. There was also a call from a man with a Russian accent who identified himself simply as ’Yuri’ and said he worked with Lucy Chao. Finally someone named Frank who was an ‘associate’ of Jane called, asking Brooke to call him back. At least she had finally achieved the popularity which had so eluded her in high school.

“Brooky,” her mother called, “we’re ordering some Chinese. What would you like?”

“I’m afraid I need to rush out, Mom, sorry,” Brooke’s phone was charged thirty percent, enough for her to make some calls, but she did not want to do that with her parents around. She left her apartment with a bag of fresh clothes and walked over to Firefighter’s field, where she could get the best reception, and started making calls.

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Frank Skorzeny thought Pawel Polopoff’s head would split as he stood sputtering into the phone.

“But this is ridiculous, Mayor,” Polopoff’s red lips spat into the mouth piece from between his fat pink cheeks, “this is the same man who ran roughshod over all procedures and protocols to endanger the lives of our very patients.”

After a few seconds of silence, during which Frank and Cynthia Foster, who had accompanied him to Bellevue, could hear the mayor yelling through the phone, Polopoff handed Frank the phone, “the mayor would like to talk to you.”

“I’m so sorry for the difficulty,” Mayor Jenkins told Frank, “I have the same order which the Commissioner has from Homeland Security to allow you access to Bellevue. I have also instructed the Commissioner to cooperate fully in providing you with whatever you require.”

Polopoff smoothed his hair and, with sudden dignity and decorum, addressed Frank, “how may I help you, Doctor Skorzeny?”

“Our first priority is procuring the remaining phage solutions?” Frank said.

“Is that the treatment you spoke of?” Cynthia asked.

“That’s right,” Frank said, “in the few cases we have used it, it has proven one hundred percent effective in curing the plague.”

“As of this morning,” Polopoff said, “that percentage has dropped.”

“What?” Frank asked.

“Yesterday a patient, Elena Gordovsky, was admitted with plague,” Polopoff explained, “and in spite of administering the phage therapy, she has expired.”

“We need to examine her,” Frank said, “Is Doctor Chao here?”

“Lucy Chao has resigned.” Polopoff answered.

“Oh, that’s too bad,” Frank said, then pointed to a young doctor inside the ICU, “but I see Yuri is here. He can assist. In the meantime, could you prepare the phage solution? We’ll need to take some with us.”

“I’m afraid the last of it was given to Miss Gordovsky.” Polopoff matter-of-factly answered.

“Haven’t you continued amplifying it?” Frank asked.

“It is all gone,” Polopoff repeated.

“The cure is gone?” Cynthia asked anxiously.

Frank held his hand up indicating for her to wait, “let’s suit up and examine Elena Gordovsky.”

What immediately struck Frank on examining Elena Gordovsky was that she did not really look like a plague victim. There were no buboes, nor any sign of ecchymosis or even the purpura which often accompany septicemia. There was also something intangible in her appearance which did not match what he had seen in the other plague victims. Whereas the other plague victims, even those who survived, had that haggard, exhausted look of someone who had just been through a fight for their life, Elena had an almost serene expression on her face.

“Make sure you get a frontal shot of her face,” Frank reminded Yuri, who was documenting the autopsy photographically, “was the phage treatment administered intravenously?”

“I wasn’t present when it was given,” Yuri responded, “you would have to ask Commissioner Polopoff.”

“Polopoff?” Frank said, “Who was the attending physician?”

“Just the Commissioner,” Yuri answered.

“No one else?” Frank asked, “Not you? Not Lucy?”

Yuri shook his masked head from side to side.

“How was the phage solution depleted?” Frank asked, “didn’t you keep amplifying it while administering it to the patients?”

“All amplification stopped once Doctor Simmons left,” Yuri said, “and we also stopped treating patients with it.”

“There’s a story about that,” Yuri added, glancing sideways at Cynthia Foster, “I’ll explain it later.”

“You can say anything in front of Cynthia which you can in front of me,” Frank said, “she’s been instrumental in opening up Bellevue to us.”

“Still,” Yuri tapped his ear and pointed to the ceiling to indicate he did not want to be overheard, “I can explain it to you afterwards.”

“We should have the samples we take removed from here,” Frank said to Cynthia, “can you arrange for a laboratory to receive them.”

“They are already standing by,” Cynthia replied, “unless you want it sent to a CDC lab.”

“Let’s go with one of your places for now,” Frank on an impulse decided to take a few pictures of Elena himself on his smart phone, “once we have Jane Simmons reinstated here, then I’ll feel more confident about any analysis coming out of this laboratory.”

After they had left the ICU, Mike, Cynthia and Yuri stepped into what used to be Jane’s office to find Polopoff sitting behind her desk talking to Stan Slovnick who was leaning over the desk listening intently to what Polopoff was saying.

“Since this office is temporarily under the jurisdiction of Homeland Security,” Frank said, “you must leave, Doctor Polopoff, and Yuri will be the Medical Examiner until Jane Simmons can return.”

“This is preposterous.” Polopoff jumped to his feet, “This is only a temporary assistance, not a… what are you doing?”

“Calling the Mayor’s office,” Frank said.

“You don’t even belong to Homeland Security,” Polopoff sputtered.

“I do,” Cynthia said, “and I am confirming Doctor Skorzeny’s statement.”

Polopoff huffed, and walked toward the door, indicating for Slovnick to follow.

“Oh, and Pawel,” Frank said before Polopoff could reach the door, “no need to clean out the desk.”

“That was a little harsh wasn’t it?” Cynthia said as Polopoff slammed the door behind him.

“It’s an inside joke between Pawel and me,” Frank responded, “Now, Yuri, what were you going to tell us about the phage solutions?”

“When Elena was admitted,” he began, “and we were trying to decide how to treat her, I overheard her father, Vasyli Gordovsky and Doctor Polopoff talking in Russian. It sounded like they had no expectation the transfusion from Michael Carter would work. Then the phage solution was brought up and Polopoff tried to dismiss it, saying it had been destroyed. Gordovsky acted angry, but I think he was just faking that. Both of them were shocked when Doctor Chao said she had saved some. They had to agree to try it then. I overheard them saying something about needing to seize that solution right away. So I told Lucy this.”

“And she took it away?” Cynthia asked.

“I think she arranged something with Michael Carter, but I did not see it,” Yuri continued, “after that it was gone from the backup refrigerator.”

“And Lucy?” Frank asked.

“She is gone too.” Yuri said.

“That confirms exactly what Jane related to me from a short conversation she had with Lucy.” Frank replied.

“But where are the phages now?” Cynthia asked.

“Only Lucy and Mike know,” Yuri said, “and I can’t reach either of them.”

“There might be someone else,” Frank said, taking his phone out, “Jane gave me the name of a woman who might know. I’ve been trying to reach her.”

“Is she missing too?” Cynthia asked.

“It looks like she called me back a few minutes ago, excuse me,” Frank walked into the Medical Examiner’s office with his phone in hand.

“How do I know who you are?” was the first thing Brooke said when Frank Skorzeny called her.

“I guess the only way to confirm this is through someone you already trust,” Frank said.

“I can only think of two people,” Brooke replied, “and I can’t reach either of them.”

“How about Jane Simmons?” Frank asked, “do you have her number?”

Brooke thought for a second, “She’ll do.”

“Call her and ask her to give you a test question for me.”

A few minutes later Brooke called Frank back, “What is Pandora’s Poison?” she asked him.

“The name we use for the phage therapy,” Frank answered.

“And GCP?”

“That stands for Grand Canyon Plague,” Frank said.

“Okay,” Brooke said cautiously, “I guess you’re okay. But tell me one thing, why do you call it poison if it’s a cure?”

“It’s not poison for the people,” Frank said, “it’s poison to all the evil things Pandora let out of the box.”

“Oh, I see,” Brooke said, having no idea what Frank was talking about, “I’ll give you two choices of where to meet. Either on the north tip of Roosevelt Island, at the lighthouse from the old insane asylum, or at the southern tip outside the ruins of the small pox hospital.”

“Well the lighthouse does sound intriguing,” Frank answered, “but if you knew anything about me, you’d know I have to pick the small pox hospital.”

“Perfect,” Brooke said, “Jane predicted that would be your answer. The hospital is gated off for restoration, so come around and stand in the middle of the north side. I’ll come meet you.”

“All we need to know is where you hid the phage solution,” Vasyli Gordovsky said to Mike Carter who was sitting quite comfortably, but trapped, in the same luxury apartment which Gordovsky had provided him.

“I’m not sure why you think I would know,” Mike responded.

Gordovsky indicated for Aleksey to turn on the tablet, “this first video is Doctor Chao removing the bottles of the solution from the backup refrigerator where she had hidden them and putting them in an insulated blue bag.”

Mike watched silently as the next video came on.

“And this is you taking that same bag with as you exit the hospital,” Gordovsky said.

“I had no idea what was in that bag,” Mike said, “Lucy just asked me to take it somewhere.”

“That might well be,” Gordovsky said, “just tell us whom you gave it to.”

Mike thought for a second, “I did not give it to anyone. I just dropped it off.”

“Also possible,” Gordovsky said, picking up the tablet and navigating on it with his fingers, “tell us where you left it.”

“In the Marble Cemetery,” Mike said, “I dropped it off there.”

Gordovsky called Aleksey over and said something to him before showing Mike the screen. It displayed a map of Manhattan with a red line following the trail he took on leaving Bellevue with the package, taking it to the Marble Cemetery, and then returning to the apartment.

“The GPS tracking from your smart watch confirms what you are saying,” Gordovsky calmly said, “but it all is rather incredible, if you excuse me. That Doctor Chao would give you a package and tell you to take it somewhere, but not tell you what is in it. And that you would do such a thing. It all is very implausible, wouldn’t you agree?”

Mike looked silently as Gordovsky indicated for Aleksey to bring him a box.

“I’m actually quite a gentle person,” Gordovsky said, “Oh, I am tough in business, and from a distance. But with people, face to face, I am gentle. That is my weakness”

He opened the box and looked inside it, then shook his head and closed it again, “but of course I know it is sometimes necessary not to be gentle. I let Aleksey do that part.

“There’s still time, you know,” Gordovsky continued, “you tell me what I need to know, and you can leave. I am serious. I have nothing to fear from you. You have nothing to tell about me. I actually want it that way.”

He walked over to the window as he spoke, looking across Central Park, “that whole blood deal is a moot point now that so many people have been infected. There is no longer any value in holding a monopoly on that particular treatment. Don’t get me wrong, a deal is a deal. I’ll pay you your five thousand dollars, and you can go your own way. As soon as I have the phage solution.”

“I don’t really understand why you even need it,” Mike said, looking at Gordovsky’s silhouette against the bright window, “I thought your daughter already received the treatment.”

“My daughter?” Gordovsky turned back toward Mike with a bemused expression, “this is not really about Elena. It’s about possessing the most valuable thing in the world. It’s about controlling which populations are cured, and when. And having every person and every country needing to go through me to get at the cure. At this moment a small window has opened on a rare opportunity. I intend to grab that opportunity and slam that window shut.”

“You want to withhold the plague cure from the rest of the world?” Mike asked.

“Of course not.” Gordovsky answered, “the world must be saved, and it will be saved. Nothing will stop that. It’s just a question of who the world needs to go through to achieve that salvation.”

Gordovsky paused to look at Mike, “but I see you are not persuaded.”

“I can honestly tell you I have no idea where the phage solution is,” Mike replied.

Gordovsky smiled, “it is so quaint when people profess their honesty. A liar can do it just as convincingly as a truly honest man. There’s no way to tell the difference. You might be telling me the truth, but I just don’t know. I told you Aleksey here is very good at one approach to getting to the truth. It is a brutal approach, but it often works.”

Gordovsky opened the box again and pulled out photos of gruesomely mutilated faces and bodies and threw them on the table in front of Frank, “but there is a problem with this approach. You never know which way it will work. When someone sees one of their favorite fingers cut off or stares at an eye which used to be in the socket through the remaining eye, or looks into a mirror to see there are no longer any lips covering their teeth, you never know how they will react. When a part of their body which they always thought of as being permanently attached is suddenly lying in a teacup in front of them, sometimes you find they weren’t so honest after all.

“On the other hand,” Gordovsky scooped up the pictures, “sometimes when a person sees irreversible damage has already been done, they become surprisingly stubborn. They don’t really want to go on living without that nose, or scalp, or whatever. And spiteful as people are, they just won’t cooperate.”

Gordovsky put the pictures back in the box and withdrew a vial and a syringe, “that’s why I like to keep options open if possible, Put a person in a situation where they always have a way out before any permanent damage is done.”

Gordovsky held the vial up to a sun beam and watched the prism effect cast a dancing rainbow across the floor, “we don’t know where the cure for plague is hiding. But we have plenty of the bacteria, as in this vial. Once this is injected, the victim will likely be dead within four days. The longer it takes to receive the phage treatment the less likely survival is.”

Gordovsky lowered the vial from the sunbeam and looked at Mike with a disappointed pout, “but you don’t seem worried at all. Oh, yes I forgot. You’re already immune to the plague.”

He signaled for Aleksey to unlock the door to an adjoining apartment.

“But she is not,” Gordovsky said to Mike as he pointed to Lucy Chao entering the room. Aleksey pulled one of her arms up and over his forearm into a lock which made her squeal in pain. He held her in this position as Gordovsky filled the syringe from the vial and injected it into her arm.

“You are free to leave now, Michael Carter,” Gordovsky said, “When you return, and what you bring with you when you return, are entirely up to you.”

When Frank Skorzeny arrived on Roosevelt Island, he exited the subway stop and was directed about a half mile south to arrive at the Smallpox Hospital also known as the Renwick Ruin. He found the overgrown structure of a once beautiful stone building enclosed by a wrought iron fence. There were corbeled crenelated parapets, oriel windows and windows with pointed arches, all reminding him more of a ruined gothic abbey in England or Ireland, than a turn of the century hospital. As he stood admiring the structure, a ghostly female shape emerged from the shadows of one of the crumbling doorways. She wore a long, old fashioned dress, a bandana on her head and small lens sunglasses.

“Frank Skorzeny?” she asked him through the fence.

“Brooke Daniels?” he responded.

Brooke deftly scaled the fence and landed next to Frank, “Hi.”

“I thought it was closed,” he pointed at the ruin.

“Yeah,” she looked over her shoulder, “but we’ve been using it as a playground since we were little kids. It’s hard to break old habits, I guess. Let’s move into the park there to talk.”

Brooke led Frank under some trees where they were less conspicuous, “Jane told me I can trust you,” she said.

“She said the same about you,” Frank replied.

“Somehow, I’ve gotten myself mixed up in a complicated and quite dangerous mess,” she said.

“And also a very important mess for the billions of people on this planet,” Frank added.

Brooke frowned, “you’re great at reducing stress, aren’t you?”

“I heard Lucy Chao passed you a package,” Frank said, “do you understand what’s in it?”

“I understand it’s something people will kill me to get their hands on.”

“It is the cure for the plague,” Frank explained, “the quicker you pass it to the right people, the quicker we can start saving lives. And get you out of danger.”

“I wish I could give it to you now,” Brooke said.

“You can pass it to me any way you want,” Frank said, “You don’t even have to be there, just tell me where it is.”

“I can’t,” Brooke said, peeling bark off a birch tree.

“Why not?”

“Because I don’t know where it is.” Brooke looked at Frank out of the corner of her eye, like a little girl who had lost her mother’s earrings.

Frank stared at her for a few seconds, “Didn’t Lucy give it to you?”

“She did.”

“And you lost it?” Frank asked.

“Kind of,” Brooke said, then waved her hand like she wanted to take that statement back, “I’ll know any moment now.”

“I don’t really follow,” Frank said.

“I was being chased by some nasty people,” she said, “so I hid in someone’s apartment and put it in his refrigerator.”

“Where is your friend now?” Frank asked.

“He’s not my friend. Actually I hardly know him.”

“Can we just go get it from the refrigerator?” Frank said.

“He moved it somewhere. To give his grandmother more room. But his phone is turned off during the day, so I’m waiting for him to return my calls.”

“Can we go to the apartment and wait there?” Frank asked.

“I don’t want to inconvenience his grandmother,” Brooke said, “he just got out of prison and he’s staying with her.”

“I don’t know if I stressed strongly enough how important the contents of that package is,” Frank said tersely.

“I don’t know if I stressed strongly enough that people are trying to kill me,” Brooke tried to reply defiantly, but her voice quavered.

“I’m sorry,” Frank said, “we’ll wait for your friend…what’s his name?”

“Jesse.”

“In the meantime, let me see if I can find a safe place for you to stay,” He stepped a few yards away from Brooke and dialed his phone.

“Hi Cynthia.”

“Oh, Frank,” Cynthia sounded exhausted, “any luck finding the phages.”

“Still working on that,” Frank responded, “you sound pretty weak. Are you sure you haven’t caught anything?”

“I don’t think so” she said, “I just got news that Roger Devlin’s condition is deteriorating.”

“Sorry to hear that,” Frank looked over his shoulder to see that Brooke was on the phone.

“And I assisted Yuri in the autopsy of Elena Gordovsky,” Cynthia said, “there are some very strange findings.”

“It doesn’t look like plague?” Frank asked.

“Plague did not kill her,” she answered, “though the tests are still pending.”

“So no Yersinia pestis in the body?” Frank asked.

“I’m not sure yet,” Cynthia said, “it almost looks like there was a lot of it in one spot in her lung.”

“How could that be?”

“I’m speculating, but Yuri thinks it might have been injected post mortem.” Cynthia answered.

Frank stood silent for a moment, before asking, “what do you think killed her?”

“Remember how healthy she looked?” Cynthia said, “that might be because her skin and blood were bright pink.”

“Carbon monoxide?” Frank asked.

“Yuri also smelled almonds,” Cynthia said slowly.

“Cyanide,” Frank responded just as slowly.

“That’s the initial suspicion,” Cynthia confirmed, “and another thing is the phage treatment,”

“It would be too early to have the results for that,” Frank said.

“I get the feeling none was administered,” Cynthia continued.

“Why do you say that?”

“It doesn’t even look like an IV line was put in.” Cynthia replied.

As Frank was listening, Brooke stepped in front of him indicating they needed to talk.

“I’m afraid I have to go,” he said to Cynthia, “we also need to find a safe house for our contact to stay in.”

“We have FBI agents here,” Cynthia said before hanging up, “I’ll talk to them. In the worst case she can stay here.”

Frank turned to Brooke upon ending the call with Cynthia.

“Jesse told me where he took Pandora’s Poison,” she said, “but we can’t get to it.”

Mike’s initial impulse on being allowed to leave his prison apartment was to get as far away from Gordovsky as possible. As he hurried down Madison Avenue he saw he had received dozens of voice and text messages from Brooke Daniels, Frank Skorzeny and his cousin Jim, and also from Jane Simmons.

“Hey, Mike,” Mike turned to see Jim calling out from the passenger window of a passing car, which Mike quickly entered, “I’ve been trying to find you. This is Detective Thomson.”

Two hard eyes looked at Mike in the rear view mirror as he slid into the back seat.

“I guess we can close this missing person case,” Thomson said.

“Pull into this street,” Jim directed Thomson, telling him to stop in front of the Gordovsky buildings. Once he had parked, Thomson turned to look over the seat back.

“Is everything all right in there?” he asked Mike, pointing to the building.

Mike wrestled with two conflicting impulses on how to respond to the question. One was to tell the detective there was an emergency, and a woman in the building needed help. The other was to keep quiet and avoid any police action which would delay him from retrieving the plague solution in time to save Lucy’s life. He was considering which response to make, when Detective Thomson asked another question.

“Is Brooke Daniels in there?”

“No,” Mike answered.

“But you know her?” Thomson asked.

“I’ve met her.”

“Do you recognize this car?” the detective showed Mike the video frame of the black SUV, “or have you heard of Potemkin Consulting?”

“Potemkin is owned by Gordovsky,” Mike said, “and that looks like one of his cars.”

“Is there anything else you think I should know?” Thomson asked. He could see Mike hesitating as though he wanted to say something, but he finally just shook his head.

While Thomson felt the Carters had more to tell, he did not think they were willing to say it at that moment. He also knew a car passing through a video in front of a crime scene was not something he could take action on other than to continue with his investigation, so he gave them his card and asked the Carters to have Brooke Daniels call him if they spoke to her.

Once the Carters had left Thomson’s car, Mike told Jim about Lucy being held in the building and took out his phone to call Frank Skorzeny.

“I am with Brooke Daniels right now,” Frank said, “trying to figure out how to get the package back.”

“Is there someplace we can meet?” Mike asked, “I’m nervous about discussing things on the phone.”

“Can we meet at Bellevue in twenty minutes?” Frank suggested, “Jane is arriving back from Atlanta, and will head there.”

“What about Polopoff?” Mike asked.

“He’s no longer there,” Frank responded, “I’ll explain when we get there.”

Before heading to Bellevue, Mike checked the smart watch Aleksey had given him. As he had hoped, it was dead. While being held in his apartment, he deliberately had not recharged it. He would keep it on his wrist in case Gordovsky called and asked about it, but at least he could not be tracked by the GPS until then.

Mike felt his stomach contract into a knot as he reentered the building where the latest frightening adventure had begun. When the elevator arrived at the Medical Examiner’s Office, Jane, Frank, Brooke and Yuri were waiting for them. Introductions were made all around and they moved into a conference room to discuss the situation.

Brooke peeked under the table, “is it safe to talk in here?”

“The FBI have swept the room for bugs,” Cynthia said, “it’s clean.”

Everyone looked at Frank, who seemed to have been implicitly elected as the leader of the group.

“First thing I have to ask about is Rudi Klarkopf’s condition,” he looked at Jane.

“It’s touch and go,” she said, “my antigens may have gotten him through the first day, but as they dissipate, his own immune system needs to take over. Either that or the phages.”

With this last comment, everybody looked at Brooke.

“Yes well,” Brooke began, “as I was running around with this package of poison.”

“Of what?” Cynthia asked.

“She means Pandora’s Poison,” Frank clarified Brooke’s statement, “it’s an expression we use for the phages. Go ahead, Brooke.”

“I was afraid to go back to my apartment, so I ended up leaving the phages in someone else’s refrigerator. He took it to a work refrigerator for safe keeping. Don’t ask me why, I didn’t know about it.”

“Where does he work?” Jane asked.

“The Jamaica Bay landfill,” Brooke replied.

“I thought that was closed and made into a park,” Cynthia said.

“It was reopened and used to bury the ashes of plague victims,” Mike said, “There was an article in…”

“Anyway,” Brooke interrupted him, “he works there disposing of the bodies.”

“And they have a refrigerator there?” Jim asked.

“They have a convenience trailer, as Jesse calls it,” Brooke said, “for the workers to store things, like lunch.”

“Jesse is your friend?” Yuri asked.

“Uh yeah,” Brooke thought maybe she shouldn’t have mentioned his name.

“Can we go get it?” Mike said.

“During the day, access is restricted,” Brooke answered, “but he said he can bring it back tomorrow.”

“It would be great to get it sooner,” Frank said.

“Is the blood transfusion treatment not an alternative?” Jim asked.

“Not a good one,” Jane replied. There are not enough donors, plus there are risks of rejection of the blood, which could lead to problems including strokes.”

“What kind of stroke?” Mike asked.

“There are different kinds of strokes?” Brooke said.

“Yes, such as clotting and bleeding,” Yuri explained.

“So it’s different strokes for different folks,” Brooke smiled and looked around proudly at her joke. Nobody seemed to think it funny.

“In any event,” Frank summarized this portion of the discussion, “we need to see if we can get the phages sooner. Perhaps we could go with Jesse tomorrow morning. Any update on Elena Gordovsky’s autopsy?”

“It’s pretty much where I summarized earlier,” Cynthia replied, “I don’t think she died of plague, but rather suspect cyanide poisoning. I’m still looking for evidence the phage therapy was administered at all.”

“Elena was poisoned?” Mike said.

“Let’s wait for the evidence,” Frank said, “Jane can assist now that she’s back.”

“How about you Mike?” Frank asked.

Mike recounted his being held in the apartment and the injection of plague into Lucy.

“Shouldn’t we just go to the police right away?” Cynthia asked.

“Gordovsky has them in his pocket,” Brooke blurted out.

“How do you know that?” Frank asked.

“I saw a Detective Thomson waiting outside my apartment with one of Gordovsky’s men.”

“Ed Thomson?” Jim and Mike said simultaneously.

“We were just talking with him,” Mike continued, “He seemed straight to me. I almost told him about Lucy myself.”

“Why didn’t you?” Cynthia asked.

“I was afraid he would provoke them to kill her.”

“I’ll get the FBI involved,” Cynthia said.

“I agree,” Frank said, looking at Brooke, “we need to stop trying to handle these things on our own.”

“I’m just afraid that with authorities closing in on them,” Mike said, “they may just kill Lucy to keep her quiet.”

“Do you think you can trust this Ed Thomson?” Frank asked.

“He already seems involved in the case,” Mike said, “I think even if we involve the FBI, it is worth talking to him.”

“So should I go meet with Jesse about going with him to the dump tomorrow?” Brooke asked.

“You’re our only contact with him,” Frank said, “do you think he would be comfortable if you brought Mike as well?”

“He is a little skittish,” Brooke said, “but I would certainly be more comfortable not going by myself.”

“There is quite a bit at stake, mayor,” Polopoff stood looking down at Mayor Jenkins as he sat at his desk, head in hands, “in so many ways.”

“There is not much I can do,” the mayor said, “once Homeland Security invokes a national threat.”

“There is no need to challenge them,” Polopoff said, “we can acknowledge it with them. But among ourselves we must keep in mind what is at stake.”

“I’m not sure what you mean,” Mayor Jenkins pulled his sweaty brow out of his hands and looked at Polopoff.

“The way we handle the plague,” Polopoff said, “it affects your reputation, Mayor. Our reputation. With everyone, if you know what I mean.”

“The sponsor?” Jenkins asked.

“The sponsor,” Polopoff answered, “the sponsor, as you know, has quite a keen interest in your success. And how the plague crisis is handled is in this moment his best way of judging your success.”

“Is it true what Homeland Security says?” the mayor asked, “that there is a cure which we are not using.”

Polopoff shook his head slowly from side to side and answered with a soft smile, “no. I tried it myself on a patient. It did not save her. Homeland Security is being lied to by the others. This is where we must oppose them.”

“But what is the risk in allowing them to continue?” the mayor asked, “Whether they succeed or fail, the sponsor’s investment is still profitable.”

“You are the politician,” Polopoff raised his hands, “not me. But someone as ignorant of politics as I am must wonder. I need to wonder if our sponsor would remain as devoted if his connections were no longer there.”

“I see,” Jenkins said, “the business?”

“You do see,” Polopoff said, “as others, such as Homeland Security, decide what needs to be done, well, it won’t be us who will be deciding anymore, will it?”

“I see your point,” the mayor said, “Potemkin?”

“Whatever,” Polopoff said.

“But what is to be done?” the mayor asked.

“From your side, just what you are expert at,” Polopoff said, “politics.”

“Politics?”

“Politics,” Polopoff affirmed, “protest their interference. Assert your confidence in your employees. In short resist this invasion by the federal government. This preemption of the elected choice of the people of your city.”

“Will that be enough?” Jenkins asked.

“No it will not,” Polopoff replied, “but you will not be the only one fighting this invasion. Information will come to light, incidents will occur. You take care of the politics. Others will be supporting you.”

“And will the dividends continue?” the mayor asked.

“The sponsor can only continue donations as long as the business plan is viable.”

“I am just worried,” the mayor said, “that we might be overlooking what is good for the public. Suppose this phage therapy which they are talking about actually is the best way to go?”

“Mayor, you could not really tell, could you?” Polopoff replied.

“Not myself personally, but perhaps it needs to be tested more.”

“I understand what you are saying,” Polopoff nodded thoughtfully, “I understand because that’s exactly what I thought. How could they all be so sure if it wasn’t the solution?”

“But you tried it, you say,” the mayor asked.

“I tried it,” Polopoff said, “with all the hope and enthusiasm Fleming must have felt when he first tested penicillin on a patient. But I had to accept the disappointing results.”

“I see,” the mayor said, “if that’s the truth, then I suppose we must accept it.”

“No matter what we hope for,” Polopoff concluded.

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“This is Mike,” Brooke said to Jesse as he let them into his grandmother’s basement apartment, “I told you about him on the phone.”

“Hey, I’m sorry I really messed up with that package,” Jesse said, shaking Mike’s hand.

Brooke looked around, “are we alone?”

“Yeah,” Jesse replied, “Granny’s at yoga.”

“Brooke tells me you took the bottles to the Jamaica dump. “Mike said.

“Yeah,” Jesse looked at the floor uneasily, “I don’t know what I was thinking, but it seemed to bug Granny that there was no more room in the fridge.”

“Sure, we understand,” Mike said, “Can we get it back?”

“Yeah,” Jesse answered, “the dump is closed now, but you can meet me there in the morning, and I can pass it to you, if you don’t mind getting up early. I have to be there at five.”

“Can I pick you up here at four, and we go together?” Mike offered.

“I have to go in a van that picks up the workers, but we can meet at the entrance to the dump just before five,” Jesse turned to Brooke, “I’ve straightened out the couch for you.”

“Oh, thanks a lot Jesse,” Brooke answered “but I’ll be staying somewhere else tonight.”

“Granny will be disappointed.”

“Do you see any danger from the others there?” Mike asked Jesse.

“What do you mean?” Jesse asked.

“I mean if they suspected we were dealing with something valuable, would they try to take it from you?”

“You mean because we’re all a bunch of criminals?” Jesse suggested.

“I didn’t exactly mean that,” Mike tried to backtrack.

“You’d be surprised,” Jesse said, “even among a bunch of people like us, there are good and bad. A lot of guys in there, I don’t really know, so of course I’m cautious. But there are others I would trust with my life. I have trusted with my life, in fact. There’s a big guy, named Bull. If it hadn’t been for him, I would have been killed in Rikers just because of a misunderstanding.”

“I’m sorry,” Mike said, “I didn’t mean to stereotype you.”

“That’s okay,” Jesse said, “Just look at your own situation. I‘ll bet whoever you’re trying to keep that package from is not someone you’d take a nap next to with both of your eyes shut. Am I right?”

“You are right,” Mike replied humbly, “you are right.”

Brooke and Mike left the apartment and walked west past Tompkins Square Park as the sky slipped from twilight into evening.

“I guess we’ll be staying in the Bellevue Hotel tonight.” Brooke said.

Mike looked south as they reached First Avenue, “It is so tempting to just turn here and go to my apartment.”

Brooke tugged his arm northward, “Come back to your senses. The hospital is this way.”

After a few more steps, Mike answered his phone, “Hi. You are? How’s it going? I’m with her right now, let me put her on.”

He handed Brooke the phone, “It’s Jim.”

“Hi Brooke,” Jim said, “I’m with Detective Ed Thomson. I think everything is okay. Can you come over to the precinct?”

Brooke held the phone down and looked at Mike, “Do you think it’s okay to talk to Thomson?” she asked Mike.

“He seemed all right to Jim and me,” Mike shrugged.

“Okay,” she said in the phone, “but I want you and Mike to be there too.”

She handed the phone back to Mike, “There’s still something about him.”

The cab they hailed swung past the office building where The Shout was located, presenting a view of the little memorial of flowers and photos of Libby and her husband before it left them off in front of the precinct.

“I want to thank you both for coming,” Ed Thomson greeted them on arrival and led them to a room where Jim was sitting, “Jim here has been telling me the story of Lucy Chao, allegedly trapped in one of the apartments you showed me in the upper east side.”

Mike looked at Jim, “yeah, I wasn’t sure I should mention that the other day.”

“Weren’t you afraid for her?” Thomson asked.

“I was, and am,” Mike said, “but I didn’t want to provoke them.”

“Who?” the detective asked.

“Gordovsky, and his people.”

“Aren’t you still worried about that?” Thomson asked.

“Yes,” Mike answered, “but I’m also afraid of doing nothing,” he looked at Jim, “weren’t they going to get the FBI involved?”

“Whoever is involved,” Thomson said, “they’ll need a bit more evidence to take action than one witness. To enter that building we will have to get a warrant.

There are some questions I’d like to ask you, Miss Daniels,” Ed Thomson swiveled his chair in Brooke’s direction.

“Do you know Stanley and Mabel Daniels,” he asked.

“They’re my parents. Are they okay?”

“They are fine,” he said, opening a folder and showing Brooke a picture of a pistol, “have you seen this before?”

“No,” Brooke shook her head, “does that have something to do with my parents?”

“Your parents called the police and reported they found this gun lying on the terrace of the apartment you share with them,” Thomson said.

“I had no idea this was going to happen,” Jim said to Brooke.

Next Thomson pulled out a photo of a fake moustache and wig, “how about these?”

“You told me about them when you last questioned me,” Brooke said.

“They were used by the murderer at The Shout,” Thomson said, “we’ve done DNA analysis on them.”

“Is there a match with someone?” Mike asked.

“Not yet,” Thomson replied, “but we do know the DNA is from a woman.”

“What are you saying?” Brooke’s face had become pale.

“How did that pistol get in your apartment?” Thomson asked.

“Somebody broke in.” Brooke said, “he must have left it.”

“When was that?” Thomson asked.

“A few days ago,” Brooke said, “he got scared away when…”

“When what?”

“When you came to the door,” Brooke said to Detective Thomson.

“I remember that,” he said, “there was no answer, so I waited, and eventually you came out. No one else.”

“He went out the terrace,” Brooke said, “he must have dropped it there.”

“Another thing about that gun,” Thomson said, “ballistics tests show it was the one used in the murders at The Shout.”

Brooke sat, mouth gaping as Detective Ed Thomson took out his hand cuffs and read her her Miranda rights.

“The epidemic continues to spread,” Frank was sitting in Bellevue with Jane, reviewing the latest CDC data on the Grand Canyon Plague epidemic. Though not encouraging, the reports were nevertheless no surprise as the daily victim count and the number of locations of plague incidents continued to climb. Cases were now being reported in almost every corner of the globe, from the tip of Patagonia to Katmandu. The disease was particularly devastating in the most rural regions of underdeveloped countries where crowded conditions and insufficient sanitation allowed the pneumonic form to spread more quickly. The only bright spot was the business of corpse disposal. Once New York City had established the precedent of incinerating victims, it spread widely both within the United States and internationally, with All Gone Incinerators receiving the bulk of the orders. As they was perusing the data, Cynthia Foster walked into the room.

“Is there any update on retrieving the phage solutions,” Cynthia asked.

Before Frank could answer, Jim and Mike also entered the room.

“Brooke has just been arrested for the murder of her colleagues at The Shout,” Jim announced.

“Well that’s a bit of a game changer,” Cynthia said, “How well do you know this Brooke?”

Jane looked at Frank, “perhaps not as well as we ought to.”

“I’m wondering if she even has the phage solution,” Cynthia said.

“We know that Mike gave it to her,” Frank said.

“But after that?” Jane asked.

“What do you guys think about this?” Frank asked the cousins.

Jim seemed uncertain, “the evidence looks bad to me. The murder weapon was found in her apartment, and female DNA in the disguises. Plus she had just been fired from the newspaper.”

“You don’t know her like I do,” Mike said, “she can’t be involved.”

“So you think she’s being set up?” Frank asked.

“She doesn’t seem like a murderess.” Mike replied

“It’s hard to tell by looking at someone,” a voice from a corner of the room spoke.

Everyone turned to look at a man in a dark suit who had followed the cousins into the room.

“I’m sorry,” Cynthia said. “this is agent Garcia, of the FBI.”

“I actually think we’ve met,” Frank said.

“That’s right,” Garcia answered, “at the apartment of the first victim.”

“Beth,” Mike said softly.

“Agent Garcia has been assigned to assist us in recovering the phages,” Cynthia said.

“I overheard you two talking over Brooke Daniels’s arrest in the elevator,” Garcia said to Jim and Mike, “sorry, but eavesdropping is a job requirement.”

“What do you think?” Frank asked.

“The strongest evidence is the gun found in her apartment.”

“And the DNA from the mask?” Mike asked.

“That just indicates the same sex,” Garcia replied, “it will become a real problem if it matches her exactly. I’m sure her DNA has already been extracted, and they are comparing it.”

“What can be done in the meantime?” Cynthia asked.

“We need to find an explanation for that gun,” Garcia said, “I’m going to visit the apartment building and see if I can come up with anything to substantiate her story of the intruder. I’ll need the details of when and where she said the break-in took place.”

“Does her arrest mean there’s no chance of recovering the phages?” Cynthia asked.

“We made an appointment with Jesse for tomorrow morning,” Mike said, “I hit it off with him, so I hope he’ll still give it to me if I go without Brooke.”

“If we get the phage solution tomorrow,” Frank said to Cynthia, “we can rush it out to the hospital ship to treat your colleague.”

“I’m afraid for him there is longer a rush,” Cynthia looked down at her phone as she spoke, “I just received news that Roger Devlin has expired.”

“I’m sorry,” Jane placed her hand on Cynthia’s shoulder.

“If you need to take a break…” Frank said.

“No,” Cynthia responded, “we still have Doctor Klarkopf to save. And the rest of the world. I’m worried about what will happen if we never recover the phages.”

“We’ve already started looking for a different phage in Atlanta with Rudi’s help.” Frank said.

“Suppose phages is not even the way to go?” Cynthia suggested.

“We’ve had some good success with it so far,” Frank replied.

“Could it be that those patients recovered on their own?” she asked.

“It worked every time.” Jane replied, “what are you getting at?”

“I’m just wondering if we’re missing something by focusing so much on one solution. Maybe we can keep exploring antibiotics as well. Maybe…” Cynthia’s lip trembled, “I’m sorry. I guess I’m still looking for a way I could have saved Roger.”

“I know that feeling,” Frank said.

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FBI agent Juan Garcia’s first stop on arriving at Brooke Daniels’s Roosevelt Island apartment building was to visit the management office.

“Excuse me,” Garcia addressed the manager, showing his FBI identification, “I would like to see your closed circuit video on a specific time and date to aid in an investigation.”

Garcia of course knew the manager had every right to refuse the request, but he had also learned that simply flashing an FBI card was usually enough to have people cooperate.

The manager looked at the card, and after a moment’s consideration stood up, “sure, just come back to the security office and we should still have those recordings accessible.”

Garcia started looking fifteen minutes before the time when Brooke said the break-in had happened. In the recording from the hallway leading up to Brooke’s apartment, about four minutes into the video, she could be seen walking up to and entering the apartment. Some nine minutes after that, a figure dressed in a blue hoodie walked up to the door, and after some fiddling at the lock, entered the apartment. Four minutes after that, an older man whom Garcia took to be Detective Thomson, could be seen knocking on the door. He repeated the knocking every fifteen seconds or so for about three minutes before leaving. Then there was nothing for a while, so Garcia fast forwarded another ten minutes until he saw Brooke exit the apartment. The hooded figure never left.

Next Garcia asked to view the external security camera from the main entrance. There he saw a different sequence of events. There was no recording of Brooke entering, but the hooded figure did enter, and then Detective Thomson walked into the building with about the same intervals between them as when they approached Brooke’s door. Detective Thomson exited the building first, then after a long gap, Brooke walked out, but there was no sign of the hooded figure leaving the building. For Garcia this meant either Brooke’s story was true or she knew the intruder, who then remained in the apartment. The only other camera which the building’s security had installed was directed to the rear entrance. From that recording, Garcia saw Brooke let herself into the building at an earlier time than she had been recorded entering the apartment. The camera was directed downward to capture the person at the door, and there was again no sign of the hooded figure. There were some passersby caught in the recording, but only from the shoulder down, and none of them was wearing a blue top.

The manager of the building obliged Garcia’s request to copy the segments of the recording to a USB drive he had brought with him, after which he climbed the stairs to the third floor apartment where Brooke lived, and rang the bell.

“Coming, just a minute,” an older woman’s voice accompanied by rapid footsteps could be heard inside.

“Oh,” she said on opening the door, “I thought it was my husband.”

“I’m sorry to disturb you ma’am,” Garcia said.

“You’re not from the police are you?” she eyed him warily.

“No, ma’am, I’m from the FBI,” Garcia showed his identification, “may I come in?”

“Oh, good,” Mabel Daniels said with relief as she stepped aside to let him pass, “my husband told me not to say anything to the police.”

“I’m here to see if I can help with your daughter’s legal problems,” Garcia said.

“Oh that’s so nice of you,” Mabel replied, “Stan went to talk to a lawyer, but he should be back soon.”

“I, see,” Garcia replied, “I’m wondering if you could show me where you found the gun?”

“Certainly,” she led him out to the terrace, and pointed to a corner near the railing, “it was lying right there, next to the rose bush.”

Garcia leaned over to look at the spot she had indicated which was right between a thorny potted rose bush and the protective railing. He noticed there was what could be a blood stain on the railing and took out a swab to gather a sample.

“This is so terrible,” Mabel said, “our daughter, our only child, accused of murder.”

He also saw a partial footprint in some dirt by the pot, and took a picture of this. As he was standing up, a flash of blue caught his eye on the rose bush. A fragment of fabric, blue on one side and black on the other was caught on one of the thorns. He also gathered this in an evidence bag. Garcia then leaned over the rail to see if it was possible for the intruder to escape from the terrace. It was only the second story, but garbage cans and other obstacles meant a leap directly to the ground would have been risky, but not impossible for someone fit and athletically trained. It was even possible to escape be using the rail and other footholds to climb down the side of the building.

“Who is this, Mabel?” Brooke’s father, Stan had returned and was standing in the doorway to the terrace.

“Oh, Stan,” Mabel smiled, “this is Agent Garcia from the FBI. He’s come to help Brooke.”

“Didn’t the lawyer tell us not to talk to the police?” Stan said angrily.

“He’s not with the police,” Mabel protested, “he’s from the FBI.”

“It’s the same thing Mabel,” Stan groaned in exasperation, “the same thing. Sir, will you please leave,”

“Certainly,” Garcia replied, but before leaving he passed the Danielses his card, “have your lawyer call me.”

“Let’s hope this is the end of it,” Jim said to his cousin as they left Bellevue at four AM to drive down the FDR Drive toward the Brooklyn Battery Tunnel.

“Even if we finally recover the phages,” Mike said, “I won’t feel safe as long as the Gordovsky gang are about.”

The bright lights of Manhattan even at this hour were serenely balanced by the full moon and its reflection in the East River. After emerging from the tunnel and driving down to the Belt Parkway, the lights of the city faded in the distance so that they were lit only by the moon shining without competition over Jamaica Bay and the breaking surf.

“Are you pretty confident about Brooke?” Jim asked.

“I think if she wanted the phages for some reason, we wouldn’t have seen her anymore,” Mike replied, “what shocks me the most is Elena’s death, especially if it was intentional.”

“Gordovsky might be a much harder man than we imagined.” Jim said.

“I already know how hard he is,” Mike said, “and so does Lucy Chao.”

The silhouette of the Coney Island parachute drop against the globe of the moon meant that they were only eight miles away from the twin Pennsylvania Avenue and Fountain Avenue dumps which had comprised the Jamaica Bay landfill in East New York Brooklyn, just before the Queens border. The squawking of sea gulls was periodically drowned out by air traffic in and out of nearby Kennedy Airport.

“This must be the entrance,” Jim pulled into a service road where a few trucks were sitting backed up with their lights on waiting for a gate to open.

Like the Staten Island Landfill, the Jamaica Bay Landfill had also served for decades as a dump for New York City’s waste, before it was closed over and converted into a park featuring the hill as a prairie like beach dune. Its recent enlistment as a burial site for plague victim had resulted in a section being fenced off and the berm opened up again to deposit the ashes from the several incinerators located near the top. As the cousins were waiting, a van pulled to the head of the line of trucks, and the passengers climbed out.

“There he is,” Mike opened the car door and waved when he saw Jesse.

Jesse waved back, then signaled for Virgilio and Bull to follow him.

“I thought the pretty girl was gonna be here,” Bull said.

Jesse bent over to peek inside the car, but saw only Jim, “Brooke couldn’t make it?”

“No,” Mike said, “that’s my cousin, Jim in there. I hope it’s okay I came without her.”

“No problem,” Jesse gave him an overly familiar nudge in the ribs and a wink, “we’re partners after all.”

“Allow me to introduce myself,” Virgilio came forward to shake Mike’s hand, “Virgil.”

Bull just stared at Mike and asked, “Is she your girlfriend?”

“Don’t mind him,” Jesse said “he’s a junior partner.”

A creaking sound and the shifting of the truck engines into gear signaled the gate had opened.

“Okay, I can get in now,” Jesse said, “I’ll be right back with the package.”

Jesse walked inside and entered a trailer not far from the gate. A moment later he came back out with the package over his shoulder.

“Finally,” Jim said as he got out of the car and watched Jesse bring the bag to the gate. Jesse waved casually to the guard, but he stopped him as he was about to stride through. After exchanging a few sentences, Jesse returned to the trailer with the package.

“What’s happening?” Mike asked.

Jesse came out of the trailer and trotted back through the gate and over to Mike and Jim, “they won’t let me take it out,” he said.

“Why not?” Jim asked.

“They said we’re not allowed to take so much stuff out, just personal items.”

“But didn’t you bring it in?” Mike asked.

“That was another day, and another guy,” Jesse looked over his shoulder at the guard and scratched his head, “I hope your friend won’t get mad.”

“He’s not my friend,” Mike said, pointing to Jim, “he’s my cousin.”

“I don’t mean him,” Jesse said, “I mean the other guy.”

“What other guy?” Mike asked.

“The one who gave me this,” Jesse pulled a hundred dollar bill out of his pocket.

“Who gave you that” Jim asked.

“He said he was your friend,” Jesse said to Mike, “he came after you and Brooke left my grandmother’s place and said I should help you get what you want.”

“What did he look like,” Mike asked.

“Kind of tough,” Jesse said, “I mean with that accent and everything. If I didn’t know he was your friend, I would have been scared.”

“Get back here, if you don’t want to lose your job,” someone yelled from the gate.

“Sorry,” Jesse said, turning his palms skyward and trotting back to the gate.

“It must have been Aleksey who gave him that money,” Jim said. “Did he follow you?”

Mike looked at the smart watch on his wrist which still appeared dead. “I don’t know.”

“Maybe we should get out of here,” Jim said, “if he might still be tracking us.”

“Yeah,” Mike got into the car, “though they’ll be following us if this watch is somehow still tracking me. Let’s go back to Bellevue where I can take a look inside it.”

“Look, isn’t that a rip?” Juan Garcia said to Frank Skorzeny as they reviewed the video from the back door of Brooke’s apartment.

Frank froze the video and zoomed into the elbow of the person passing the doorway, “it looks like it,” he said.

“And if you look at the coloration of the jacket,” Garcia said, “it looks like the inside is blue. Just like the swatch I pulled off the rose bush, black on one side and blue on the other.”

He switched to the video in the hall outside Brooke’s apartment, “the same as the intruder’s jacket. It looks like the hoodie was reversed.”

“Just a minute,” Frank zoomed into the video to see a glimpse of the inside of the hood. He toggled between the two videos.

“Shouldn’t it be blue inside the hanging hood here too if it were reversed?” he pointed to what looked like a black hood dangling beneath the shoulders in the back door video. It looked like the inside was black.

Garcia zoomed in a bit more. The suspected hood was at the top of the picture, since the head was cut off by the camera, “that’s not a hood, that’s hair.”

Once it was pointed out to him, Frank could see it. The figure passing outside the back door with the piece ripped out of the hoodie, had long, dark hair.

“It looks like a woman,” Frank said.

“And I think she climbed down from the terrace in a hurry,” Garcia said, “catching her arm on the rose bush and dropping the gun as she fled.”

“Who could it be?” Frank asked.

“From the body shape and size, and the hair length and color,” Garcia answered, “it looks a lot like that dead body you have in the morgue.

“Elena Gordovsky?”

Garcia nodded, “You have a DNA analysis lab here. We can compare the sample from the ripped cloth to the body.”

As they were reviewing the videos once again, Jim walked into the room, “Did you get the text about the dump?”

“Yeah, I got Mike’s text,” Frank answered, then looked at Juan Garcia, “can we just go into that trailer and seize the package?”

“If it belongs to the city,” Garcia answered, “and if they give us permission, it shouldn’t be a problem.”

“So we’d have to ask the mayor,” Frank said, as he reexamined the video, “where’s Mike?”

“He’s outside, taking his watch apart,” Jim answered.

“He’s the only one of us besides Brooke who’s seen Elena Gordovsky alive,” Frank said, “could you call him in to have a look at this video?”

As Jim was leaving, Jane walked in, “Frank, you might want to check the lead story on the New York Tides website.”

Frank navigated to the newspaper’s site and read the following:

“Health Commissioner: Incompetence and Meddling Caused Epidemic

New York City Health Commissioner Doctor Pawel Polopoff released a statement today blaming meddling by federal agencies including the Centers for Disease Control (CDC) and the Department of Homeland Security as well as gross incompetence on the part of their officials for the plague epidemic. The Commissioner stated that ‘the New York City Medical Examiner, Doctor Jane Simmons had without permission allowed Doctor Frank Skorzeny, an epidemiologist with the CDC to determine treatment and administer experimental procedures which delayed proper care and allowed the spread of the epidemic to accelerate.’ Doctor Polopoff also stated that Doctor Skorzeny has a history of dubious practices with disastrous outcomes including, most tragically, the death of his own wife, Molly, due to his insistence on administering an unproven treatment, thus delaying the use of a standard approach which would likely have saved her life. Steps to rectify the ‘improprieties’ in the Medical Examiner’s office were thwarted when the Department of Homeland Security, with the encouragement of long time Skorzeny acquaintance Doctor Cynthia Foster, intervened to reverse the removal of Doctor Simmons as Medical Examiner, and also to permit the return of Doctor Skorzeny and his ‘unorthodox and dangerous methodology’ to the Medical Examiner’s office in Bellevue.”

“I’m sorry about that, Frank,” Jane said.

“I wish she could just rest in peace,” Frank shook his head.

“Frank?” Jim had entered the room with Mike.

“Oh, sorry,” Frank said, navigating back to the video, “could you take a look at these two videos and let me know if you think it might be Elena?”

“I think that was despicable of Polopoff,” Jane said to Frank, who had stood to allow Mike to examine the videos.

“I guess we always knew who we were dealing with,” Frank said, “my main worry is that it will make it more difficult for the mayor to allow us access to the dump after that statement.”

“I may be wrong,” Jane said, “but I sometimes get the feeling if we could talk to the mayor without Polopoff around, he might be more reasonable.”

“I know what you mean,” Frank said, “if we laid out the facts for him and knocked the scales off his eyes, we’d have a chance.”

“But he’s already been brainwashed against us,” Frank continued, “it would have to be someone he and Polopoff don’t know, so they could get his ear.”

“That could well be Elena,” Mike stood up from watching the videos and walked over to Jane and Frank, “and I overheard what you said about getting access to the dump. I hacked open my smart watch outside.”

“And?” Jim said.

“I thought it was dead because I hadn’t recharged it,” Mike said “but it looks like there’s a separate unit built in, probably for the GPS, which has its own power supply.”

“What does that mean?” Jane asked.

“It means Gordovsky has still been tracking my movements.”

“That must be how they got to Jesse’s apartment,” Jim said.

“That means we need to get an agent over to Jesse’s place before Gordovsky’s man asks him any more questions,” Frank said.

“It also means they know I went to the dump,” Mike said.

When Brooke heard her cell door open and was brought not to a visiting room but through the gate to meet her lawyer, Johnny Falwell, she thought it was going to be another hearing of some kind, or perhaps a conference to discuss defense strategy. It was therefore a surprise when her lawyer told her why he had come.

“Charges have been dropped,” Falwell said, “you’re free to go.”

“How did you manage that?” she asked.

“With the help of your friend, Agent Garcia here,” Falwell said.

She looked at Garcia uncertainly, “I saw you around Bellevue,” she said, “but I don’t think we ever spoke.”

“Your DNA did not match the traces found on the disguises,” Falwell said to Brooke, “but it was Agent Garcia who uncovered evidence supporting your story about the intruder. Without that, the charges wouldn’t have been dismissed.”

“Well, I’d be a jerk, not to say thank you,” Brooke said as they walked out to the street, “but at this point, if I could, I’d just flip the entire world a bird and disappear. I don’t really know who to trust.”

“I’m here to prevent you from disappearing against your will,” Garcia said.

“I don’t even know where’s a safe place to go at this point.”

“I was going to escort you back to your Roosevelt Island apartment,” Garcia said.

“That can’t be safe.” Brooke stopped from getting in the car.

“Both the city and the FBI have you well protected,” Garcia reassured her.

“Even from my parents?” Brooke asked.

“Miss Daniels.”

Brooke turned to see Detective Thomson walking toward her.

“I’m sorry about the inconvenience,” he said.

“Yeah,” Brooke answered, “pu-pu pasa.”

“I think both of us would like to find the real killers,” Thomson said, “wouldn’t you agree?”

“I think my lawyer would advise me not to make any comment,” she said, nodding toward Falwell, “if you have communication, pass it through him, or better yet through Agent Garcia here. He’s cheaper.”

“How well do you know this Jesse who you gave the package to?” Garcia asked Brooke as they slid into the car.

“Hardly at all,” Brooke said, thumbing through her messages, “Giving him the package was an act of desperation. I hope Mike got to pick it up?”

“They won’t let Jesse take it back out,” Garcia said, “plus the Gordovskys seemed to have tracked him going to his grandmother’s place, and possibly the dump.”

“Uh, oh,” Brooke stared at a message from Sally.

“What is it?”

“A friend of mine who works for the city has been investigating Gordovsky’s company, Potemkin,” she said, “it seems they have the contract to manage the body disposal at the dumps. If they realize it’s in one of their refrigerators, all they have to do is walk in and get it.”

Garcia was just approaching the Fifty Ninth Street Bridge to cross to Roosevelt Island when he made an abrupt right turn on Second Avenue and headed downtown.

“What are you doing?” Brooke yelled.

“If what you say is true,” Garcia answered, “we have to meet the others to find a way to stop them.”

“But my parents are waiting for me,” Brooke looked out at the island as they drove south, “here we go again.”

As they arrived at Bellevue, Garcia made a phone call to confirm an agent had been assigned to watch Jesse’s place. He also checked that Brooke’s parents were well guarded, then escorted her from the parking garage up to the Medical Examiner’s laboratories. There was a moment of embarrassment as Brooke encountered Jim.

“I’m so sorry,” he said.

“Well it all worked out,” she said, “though it’s a good thing I was in hand cuffs, otherwise I would have really committed murder.”

“Did the police tell you who matched the murderer’s DNA?” Mike asked.

“Detective Thomson said they’re still looking, but so far it doesn’t match anyone in their database.” Brooke replied.

“Around here they are suspecting Elena,” Jim said.

“Where do they get that from?” Brooke asked.

“Remember she was brought in with plague?” Mike said, “well she passed away, but it looks like she didn’t have plague, but was poisoned.”

“Who would do that?” Brooke asked.

“Well either her father is more ruthless than we thought,” Jim said, “or perhaps Polopoff.”

“What would he have to gain?”

Jim shrugged, “who knows the intrigues involved, but it seemed pretty well orchestrated when you think about the facts. He removed Jane and Frank from the office and Elena arrives sick. So he’s treating her himself, and would be able to sign the death certificate. She would no doubt have been cremated already if Homeland Security hadn’t taken over.”

“Glad you were exonerated,” Frank said from the door to Jane’s office, “could you guys come in for a chat?”

“You and Mike know the importance of the phage solution,” Frank looked at Brooke after they were all seated, “and you also know how it got where it is.”

Brooke shifted uncomfortably on remembering her role in losing the package to Jesse.

“You both and Lucy Chao were very courageous in saving those bottles from falling into Polopoff’s hands,” Frank said, “Lucy particularly.”

“However it is only a matter of time before he and Gordovsky figure out where they are,” Frank continued, “worst of all, Juan Garcia tells me you found out Gordovsky’s company Potemkin runs the disposal program at the dump.”

Brooke nodded and looked at Garcia who was standing by the door.

“We still have hope the mayor may not be in on their plots,” Frank said, “and that we can convince him to grant us access to reach the phages first.”

“Why wouldn’t he cooperate?” Mike asked.

“Polopoff seems to have great influence over Jenkins,” Frank explained, “and is able to filter access to him. If any of us tried to reach the mayor, we would be blocked. That’s why we want to send the message through someone Polopoff doesn’t know.”

Brooke felt a knot in her stomach as Frank ended the sentence with his eyes on her.

“I’ve hung up my cloak,” Brooke said, “and sheathed my dagger.”

“I know it can be frightening,” Frank went on, “but Juan will accompany you as far as he can. We are hoping that if you leave a message directly for the mayor under a different name, stating you have vital information regarding the phage treatment for plague, he might agree to see you. You are the only one of us who Polopoff would not recognize.”

Brooke stared at the table top without saying a word.

“It is a critical moment,” Frank went on, activating his cell phone, “for us, for the city, and for the world. If you need any reminder of just how ruthless Gordovsky can be, look at what he did to his own daughter, Elena.”

As Frank said this he turned his phone toward Brooke and Mike, displaying the picture he had taken of Elena’s face on the autopsy table.

Brooke looked up from the table at the phone and said, “That’s not Elena.”

“What?” Frank checked that he had indeed shown her the correct picture.

Mike picked up the phone to examine the face more closely, “she used to clean the apartment Gordovsky gave me.”

At they were looking at the picture, Jane entered the office and said, “The DNA from Brooke’s terrace does not match Elena’s body.”

It was less than an hour after Mike Carter had left Bellevue with the package of phage solutions that the elevator Lucy Chao was riding went past the lobby which she had chosen as her stop and continued down to the parking garage. Assuming she had not pressed the button properly, she waited for the man riding the elevator with her to exit so she could return to the lobby. Only when she noticed him withdrawing an override key from the button panel did she begin to realize her mistake was not forgetting the button, but getting in the elevator with that man at all. He immediately grasped her hand in a way which allowed him to apply unbearable pressure to her thumb if she hesitated to walk in the direction he led her, which was to a black Mercedes SUV parked close to the elevator. She was forced into the back seat where she found herself sitting next to Vasyli Gordovsky.

“You’ve been busy,” he said as he pushed a button which activated a screen on the seat back in front of them. He sequentially played videos of her loading the phage bottles into a container, and then Mike leaving the lobby with that container.

“Do you believe the phages are a cure for the plague?” he asked her.

“They have worked every time we tried them,” Lucy answered.

“Then why on earth would you want to withhold them from the world?”

“It doesn’t seem to me like the Medical Examiner’s office is a very secure place for them right now,” Lucy answered.

“I agree with you completely,” Gordovsky said, with a gentle smile of commiseration, “it should not be there at all. So what should we do?”

Their conversation was interrupted by the ringing of Lucy’s cell phone in her backpack. Gordovsky intercepted Lucy’s arm as she reached for it.

“I’ll take that,” he said, powering down the phone, and placing it in his jacket pocket. He examined the rest of the contents of her pack.

“A few women’s items, cash, credit cards. You really shouldn’t have these things in your backpack,” he said in a concerned voice, “with so many dishonest people around, they can be snatched too easily. A bottle of water. All innocuous.”

He handed the pack back to her without the cell phone, “indeed, what should we do about the phages, since we know they are not safe in Bellevue?”

“I might be able to think more clearly if I weren’t being abducted,” Lucy said.

“Oh, but you’re not being abducted,” Gordovsky replied, “you are my guest. You will see I can be a quite charming and attentive host.”

“It doesn’t feel like that at all,” Lucy rubbed her sore thumb.

“”Was Aleksey rough with you?” he asked her, before exchanging a few words in Russian with his chauffeur.

Aleksey looked in the rear view mirror and spoke very mechanically, “I am sorry, Doctor.”

“But we still haven’t come to a solution about the phages, have we?” Gordovsky returned to the thread of his discussion.

“They should be in the hands of Jane Simmons and Frank Skorzeny,” Lucy replied, “and those hands should be in a laboratory at the CDC.”

“We will continue this conversation shortly,” There was a note of irked toleration in Gordovsky’s voice as he exited the SUV once Aleksey had driven it into the garage under the Upper East Side complex. A young woman in a long servant’s dress received them, “Aleksey and Sylvia will take you to your apartment, while I attend to an issue.”

The luxuriously equipped apartment attested to Gordovsky’s assertion that he was a good host, but the door locking behind Sylvia as she exited left no illusion that Lucy was indeed a prisoner. She waited in her room for Gordovsky to continue the conversation as he had promised, but hours passed without the door opening. As far as she could tell, she had everything she could want except for freedom. In the kitchen area stood a refrigerator and microwave, and Sylvia brought her excellent freshly prepared meals. There was also a button operating a telecom which she could use to call for assistance. The restriction on freedom did however extend to contact with the outside world. Besides losing her phone, there was no television or radio. A high end computer allowed her to play games, but there was no internet connection. There was also a camera in every room except the bath room, though she suspected a hidden one there as well.

The following day was much the same, with the only highlights being the visits from Sylvia as she brought food and changed the towels and linen. On the third day her captivity started with the same boredom and monotony, until a side door in her apartment was opened by Aleksey. When she was led into an adjoining room where Mike was sitting with Gordovsky, she at first assumed this would be the promised continuation of the conversation on what to do with the phages. But that hope was squelched in pain and terror as Aleksey seized her and Gordovsky injected her with what he announced to be plague bacillus.

After Aleksey deposited her on the floor of her room, she spent a few seconds rubbing the pain out of her arm before rising to walk deliberately to the refrigerator and pick up the water bottle which Gordovsky had so considerately allowed her to retain from her backpack. She chewed and swallowed four antacid pills and drank the entire contents of the bottle which she had filled with phage solution before she prepared the package for Mike.

From witnessing Jane’s treatment with the phage solution, she knew even if the solution worked, she could expect the next twenty-four hours to be very rough. However it had never been applied orally before. Perhaps she took the wrong amount of antacid. Too little might allow her stomach juices to dissolve enough of the phages so that the dose would be ineffective. She wasn’t sure what would happen if she took too much. Perhaps that would also disrupt them in some other way. The solution had also been sitting in the refrigerator for some time. Would that affect the efficacy of the phages? It would be the next day before she would see whether and how far the disease progressed.

In the morning Lucy did experience mild symptoms and fever, which worsened throughout the day and into the evening, during which Sylvia continued to bring food and service the room. Whenever the servant would attempt to bring a tray to her bed, Lucy tried to shoo her away to keep from infecting her, but Sylvia’s poor English made it difficult to communicate. She clearly had not been told anything about Lucy’s condition. On the second day after being infected, Lucy felt much better, paralleling the dramatic recovery she had witnessed in Jane Simmons after she had been treated with the phages. Still, aware of the camera monitoring her room, she behaved as though she were gravely ill, spending most of the day in bed, and ignoring the food even as she grew quite hungry and weak. On the afternoon of the second day, Sylvia again entered the room, and despite Lucy’s efforts to keep her at a distance, she insisted on approaching the bed and placing a tray of food on the table next to her. She rattled a spoon in the coffee cup to make sure Lucy’s eyes were on the spot before she lifted the cup to uncover a note reading, “Follow me.”

Lucy lay in bed and watched as Sylvia brought a stack of towels into the bathroom. A minute later, she came out and walked around the room polishing every mirror, glass and bit of brass with a rag. At one point she turned her back to the camera and looked at Lucy. As Lucy watched, she opened a shoe polish can, stuck the rag inside, then walked to the camera, stood on a chair and polished the lens with the shoe black, blinding the camera. She turned to Lucy and nodded before opening the door to the room. Lucy rose, weakly, but steadily to her feet and followed Sylvia out the door, in pajamas, and barefoot. They walked as silently as possible down the hall until Sylvia stopped before a door, where Lucy could hear Gordovsky and a young woman talking in Russian. Sylvia peeked inside the room, then waved for Lucy to walk past the open door. After she did, Sylvia followed, but was halted by Gordovsky calling to her. Lucy flattened herself against the wall as she heard his footsteps approaching the doorway. Gordovsky handed a tray to Sylvia who took it and continued walking past Lucy, who followed her down the hall to a staircase. The servant placed the tray on a table and led Lucy down the stairs to a service entrance.

“You go,” Sylvia said to Lucy, “call help.”

“Come with me,” Lucy signaled with her hand that Sylvia should follow her out the door.

“No,” Sylvia responded, raising her dress hem to reveal an electronic tracker on her ankle, “you go. Call help. He kill my friend.”

Lucy was about to insist, when the door behind her was pushed open, and Aleksey leapt through, reaching for Lucy. She staggered backwards against another door which swung open from her weight, causing her to fall out into a courtyard behind the house. Aleksey strode after her, but was tripped by Sylvia’s foot and tumbled into the threshold. In a moment, Lucy was on her feet and running down an alleyway between the buildings to the street. In the same instant her fingers closed on the wrought iron gate, Aleksey’s hand grasped her shoulder and spun her around.

“I have plague,” she screamed as loudly as she could. Aleksey froze for a second, then reached out to cover her mouth, only to be met by a large, warm glob of spit which hit his nose and spattered into his eyes and mouth.

Again she yelled out, “I have plague.”

Realizing what had just happened, Aleksey wiped the spit off with the back of his hand and staggered backwards trying to blow and spit Lucy’s saliva out of his nostrils and mouth, giving Lucy the chance to pull open the gate and run into the street, screaming over and over again.

“I have plague. Help me. I have plague.”

The reaction of the pedestrians was, of course, to run away from her as fast as they could. When she approached cars stuck in traffic, she could hear the sound of their doors locking. She was finally subdued by a police officer who pulled on his protective mask and gloves and held her until a plague ambulance team, equipped with hazmat suits, came to pick her up.

Mayor Jenkins had begun to have his doubts about Pawel Polopoff. The Doctor had been the most important member of his campaign when Jenkins had run for mayor four years earlier. He had several skills which allowed candidate Jenkins to dance around the positions of his opponents. Foremost among those skills was his formidable use of words with which he could flatter and detract from a person almost within the same phrase. In news conferences given by Polopoff as well as in speeches he had written for Jenkins, the summary of adversaries’ positions and the contrast of Jenkins own, always seemed to leave the impression that Jenkin’s camp had more thoroughly thought through the issue than the well-meaning but confused opposition, even if a methodical consideration of the facts would indicate the opposite.

Polopoff’s other talent lay in the necessary, but necessarily labyrinthine world of fund raising. To be sure, there were very public and well known donors who outright proclaimed their support of Jenkins. But donations also came through anonymous and less transparent routes which Polopoff was adept at organizing. The ultimate contributors wanted the candidate to be aware of his commitments once he came to office without those commitments becoming public. Indeed some of the donors did not particularly care who won the election, as long as the victor were in some way beholden to the donor. Such donors often hedged their bets by contributing to every candidate’s campaign.

Most prominent among these power donors was the one they always referred to as the ‘sponsor.’ Although names were never directly shared between Polopoff and Jenkins, it was obvious the sponsor came from Polopoff’s stable of wealthy Russian associates whom he had cultivated in the years after the fall of the Soviet Union.

Once Jenkins had won the election, he relied more on Polopoff, whom he had named Health Commissioner, to manage the donors’ expectations. It was a delicate task to reward a donor through his interests without exposing the administration to allegations of impropriety. Jenkins understood this side of politics and was quite convincing in following the scripts Polopoff wrote for him. Then the plague came. At first it seemed no more severe than any other crisis, so Jenkins was not bothered by Polopoff’s addressing the problem through contracts with the sponsor’s shell company, Potemkin. There was the quite ingenious and profitable incinerator deal to begin with. Besides that, Potemkin was used to place ‘parrots’ in departments, such as the Medical Examiner’s Office, who could provide strategic leaks which he could either keep to himself or publicize anonymously depending on the advantage to be had. Jenkins reconciled himself with these arrangements as part of the politics necessary to get things done.

But things were not getting done. And most worrying for Jenkins was the gradual appreciation that the longer the plague epidemic lasted, the greater the profit for Potemkin would be. In light of this growing realization, Polopoff’s actions began to take on an implausibility which Jenkins was having trouble reconciling. Was it really very likely that a professional such as Jane Simmons plus the CDC plus the Department of Homeland Security would conspire to undermine the city’s efforts to end the epidemic? Although Jenkins accepted the necessity of politics and a certain amount of rewarding loyalty, deep down he cared for and wanted to do the right thing for the people of his city. For these reasons he was receptive when a private investigator named Debbie Randal contacted his office purporting to have evidence the phage cure was real and being suppressed.

“Wish me luck,” Brooke said to Juan Garcia before exiting the car for her appointment with Mayor Jenkins.

It had been an easy matter for Homeland Security to provide her with a false identity and fake ID which would reduce the risk of her getting caught in any filter Polopoff might have in place. Once she had passed through security at City Hall, she was brought into a small conference room where she waited for about ten minutes before Mayor Jenkins came in to greet her.

“My name is not really Debbie Randal,” Brooke began, “but Brooke Daniels.”

“Well that’s not a very good start,” the mayor said.

“I’m sorry, but if I gave my real name, Pawel Polopoff would never have allowed me to see you.”

“Why do you think he controls my visitors?” Jenkins asked, a bit peeved.

Brooke felt nervous, but continued as planned, “I have been working with Jane Simmons from the Medical Examiner’s office, Frank Skorzeny from the CDC and Cynthia Foster from Homeland Security. They have given me the following evidence of cases where phage therapy has completely and quickly cured plague infections.”

Brooke’s trembling hand placed a folder with the evidence in front of the mayor.

“And who exactly are you?” the mayor asked as he leafed through the cases.

“I was a reporter for The Shout,” Brooke answered.

“A reporter?” the mayor closed the folder, “Not a private investigator?”

“I am no longer a reporter,” Brooke replied quickly, “and come here not to ask you questions, but to give you answers.”

“Isn’t that a bit audacious?” Jenkins asked.

“It is, because audacity is what is needed,” Brooke could hardly believe the words were coming out of her own mouth, “there is a cheap, effective cure for the plague, which is deliberately being withheld by Polopoff and Vasyli Gordovsky through the help of his shell company, Potemkin Consulting.”

“Why would they do that?” the mayor asked.

“To profit from the plague by selling incinerators,” Brooke said, “to profit by administering the disposal sites and charging the city for that, and ultimately to profit by taking the phage cure for themselves and selling it to the world at their price.”

“What do you have to gain from this,” the mayor asked.

The question angered Brooke, “I may not know much about politics. But I think there is merit in simply doing the right thing. To me it is good to thwart evil and it is good to stop someone from withholding a cure they did not even invent. And besides that, I want to get back at the people who killed my friends and colleagues and who tried to kill me.”

“What is it you want me to do exactly?” Jenkins resumed his examination of the cases in the folder.

“All you have to do is tell the Jamaica landfill to allow the CDC, Homeland Security, and the FBI to enter the grounds and retrieve the phages being stored in a refrigerator there,” Brooke replied, “and with all due respect, the sooner the better. Gordovsky could already be on the way to grabbing the phages.”

When Mayor Jenkins stood up from the table without responding, Brooke expected at best a promise to look into it, but most probably a rude expulsion from City Hall because of her impertinence. Instead, the mayor offered his hand to her and said, “I am going directly to my office to authorize the Jamaica Landfill to admit anyone showing valid ID from the CDC, Homeland Security or the FBI, to enter and take possession of any material they deem necessary. I want to thank you for largely reinforcing an opinion I was forming myself. You are a very brave woman.”

After refusing the mayor’s offer for an extra security escort, Brooke left the room in such a state of euphoria, that she could not resist calling Frank Skorzeny immediately.

“Nailed it boss,” Brooke told him, “Anyone with CDC, Homeland Security or FBI will be admitted to the dump.”

“Great job, Brooke,” Frank responded, “are you on the way back now?”

“I’m just heading to the car,” she said, “Juan and I should be there in fifteen minutes, if you want to go to the dump together.”

“Perfect, see you then.”

Brooke’s elation stayed with her as she descended the staircase down to the lobby and left City Hall. A passerby would have suspected her sanity as she crossed Chambers Street with a wide grin on her face. She walked up tiny Elk Street and turned onto Reade Street where she slid into the passenger seat of Juan Garcia’s car.

“Mission accomplished,” she declared as she buckled her seat belt and looked at the driver’s seat to find not Juan Garcia, but Gordovsky’s henchman, Aleksey sitting behind the wheel.

“Where’s G-Garcia?” she stammered.

“Back here, Brooke.”

She looked over the seat back to see the face she knew would match the voice. Elena sat behind Aleksey. Next to her sat Polopoff, and slumped next to him, his face blue, his lips and extruding tongue purple, and his eyes bulging, was Juan Garcia, smiling from a deep red indentation across his neck where he had been garroted.

“We know you passed the phages to this Jesse,” Elena said, “tell us where he hid them.”

“I don’t know,” Brooke said, “he wouldn’t tell me.”

Elena opened her cell phone and put it on speaker to play a recording of her mother pleading distraughtly, “Brooke, they took your father. They tied up that poor policeman guarding the front of the house. They took your father and injected something in his arm. They said you have the antidote. Please Brooke, give it to them.”

“It’s at the Jamaica Bay dump,” she told Elena, “Jesse is one of your employees and works there. He put it in a refrigerator in a trailer.”

When Lucy Chao was picked up outside of Gordovsky’s apartment, her initial request to be taken to Bellevue was ignored by the EMTs who assessed her as delusional. Instead they brought her to the plague isolation ward at Metropolitan Hospital which was closer to where she was found. As she was interviewed, it became apparent that she had not in fact been delusional but had rather just escaped from a harrowing imprisonment. When the police officer assigned to her entered the details of her account into his tablet, the names Gordovsky and Brooke Daniels triggered an immediate link to the case which Ed Thomson had been working on, and he was dispatched to that hospital. Lucy’s eyewitness account that imprisonment had taken place there along with the assault of the plague injection and the probable imminent danger to the servant Sylvia, all gave Ed Thomson the legal justification he needed to enter the building. He obtained a warrant and assembled an assault team.

The detective knew he would have to anticipate both a well-fortified building and the possibility of heavily armed defenders. He therefore arranged for a SWAT team to support the entrance. The actual building where Lucy had been held was prepared for the assault by placing a team in the courtyard behind it at the door through which Lucy had fled. A team was also positioned on the roof of the building to cut off any escape that way and also to prepare to sweep downward through the building if necessary. When a check of the ownership of the building showed it belonged to Potemkin Consulting, it was also discovered that the adjoining buildings also belonged to that company. This led to some uncertainty about whether there could be subterranean connections which would also allow occupants to flee. Once monitoring officers were positioned around all the buildings belonging to Potemkin in the area, the officers approached the front door.

When a few minutes of bell ringing and knocking did not elicit a response, the battering ram was brought in. The reinforced door and jamb required several hits, but eventually the lock broke and the officers streamed in to conduct room by room sweeps. The first floor went relatively smoothly, but on the second and subsequent floors they encountered some rooms which had been made so secure that the battering ram needed to be applied to their doors as well. What was conspicuous by its absence in the whole operation was any person. Although there were elaborate furnishings and evidence the building had been inhabited, there was not a single person to be found. Once the entire building had been swept, they turned to the basement, which had been converted into servants’ quarters. There, huddled next to the boiler they found the trembling Sylvia.

When they brought her out, at first she seemed relieved and grateful, but was seized by a debilitating panic the moment they attempted to escort her to an ambulance. She protested vehemently in Russian and pointed to her foot.

Ed Thomson lifted the hem of her dress and saw the anklet, “This is not just a tracking device,” he said, “it will also deliver a shock if she wanders away from the property.”

An officer severed the anklet with heavy clippers and after that Sylvia happily acquiesced to being taken to a hospital for a checkup and to be interviewed by a Russian speaking officer.

“Another one,” an officer called out to Ed Thomson, “we found him in a false closet in the basement.”

Staggering and blinking against the bright light, Brooke’s father made his way through the front door, leaning against an officer for support.

With the building secured, Ed Thomson and his team began searching the rooms for evidence supporting Lucy Chao’s story of imprisonment. As the search was beginning, he received a phone call from the Police Commissioner.

“Detective Thomson, the mayor has authorized members of the FBI and other federal agencies to enter the Jamaica Bay Landfill pursuant to an investigation involving Vasyli Gordovsky and his company Potemkin Consulting. Since you have been involved with other Gordovsky cases, I want you to head over to the landfill right away to lend any assistance you can.”

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“They should be here by now,” Frank had just left his third voicemail for Brooke and his second for Juan Garcia, “something is wrong.”

“We need to recover the phages before Gordovsky does,” Jane said, looking at her watch.

“But what if Brooke and Juan need help?” Mike asked.

“Let me talk to Cynthia,” Frank said as he went to the autopsy room where Cynthia was assisting Yuri in confirming the plague death of one of the many bodies brought in that day. He tapped on the glass window for her to come outside.

“We have lost track of Juan and Brooke,” Frank said after Cynthia had changed and disinfected, “do the FBI have any way to track his car?”

“I’m not sure,” she replied, “but I can try to get another agent to help.”

“I’ll have to leave tracking them in your hands,” he said, “I need to go try to retrieve the phages.”

“I’ll also get an agent to meet you there,” Cynthia said.

Brooke’s eyes locked with Elena’s in the rear view mirror as Aleksey drove them along the Belt Parkway next to the ocean, “How could you just go to kill people you don’t even know?”

Elena raised one eyebrow and one corner of her mouth in a sardonic smirk, “I didn’t just go to kill people I didn’t know,” the smirk stretched into a toothy grin, “I went to kill you too. It was my special assignment, since I could identify you.”

“Is that part of today’s plan?” Brooke asked.

“Not part of the plan, really,” Elena said, “if it happens, it happens. But you are likely much more valuable as a live hostage than a dead moron.”

Polopoff said something in a loud complaining voice in Russian, then repeated it in English, “Let’s get rid of this windbag,” he pushed Garcia’s head off his shoulder, “before he starts to leak on me.”

Aleksey pulled off of the Parkway by Calvert Vaux Park and found a deserted beach where he pulled Garcia out and rolled him into Coney Island Creek for the seagulls and raccoons and crabs to snack on. Already the roar of planes arriving and departing Kennedy Airport was growing more deafening as they approached the dump.

The security guards did not recognize the car at the gate, but they did recognize Aleksey driving it, though they were accustomed to seeing him arrive in the black Mercedes SUV. He still needed to show his Potemkin ID before they would open the gate. Besides the usual Potemkin guard, there was also a ranger from the New York park service controlling access to this fenced off section of the landfill. Since he had only been instructed to make sure members of select federal agencies would be allowed entrance, he did not bother to impede anyone the Potemkin guard let through. Once through the gate, they drove to a trailer which was not far inside.

“Lean forward and put your hands behind your back,” Elena ordered Brooke, placing handcuffs on her wrists when she complied, “This won’t take long, then we’re off to the airport. You don’t have a ticket though.”

“How will you be sure it is the right package?” Brooke said to Polopoff once Elena had left the car, hoping to stall for time.

“We will test it on someone,” Polopoff said, “but don’t worry, you won’t be there to see the results.”

When Elena returned to the car, she placed the package on the back seat and had a very agitated conversation with Polopoff and Aleksey in Russian, during which she pointed into the distance beyond the gate.

“I knew it was good to keep you alive,” Elena said to Brooke, “Aleksey was so eager to kill you.”

Instead of driving back out the gate they had entered, Aleksey ascended the winding road to the top of the berm where the smoking incinerators stood. As Brooke looked out from the higher elevation, she could see what caused the change of plans. There were police lights at several points along the roads leading to and from the dump, apparently forming checkpoints. Elena made a phone call as they approached the top of the berm.

“We need you to come pick us up now,” she said, “that’s right, the backup plan as we discussed. Come in as low as you can on the sea side of the berm, so you’re not seen. Come right away.”

At the top of the berm, Brooke could see men unloading body bags from a truck and loading them into incinerators, while other men were removing what looked like giant ash trays from incinerators and pouring the contents into the reopened landfill. When the car approached, everybody stopped working and stared as Aleksey exited. They had seen him before, but when Polopoff and Elena climbed out of the back seat, they knew something unusual was happening.

“All of you, stop working, and climb down into the pit,” Aleksey said.

Some complied, others hesitated, and one called out, “I ain’t getting in no damn pit, If you’re gonna kill me, do it right here where I stand like a man.”

At this rebellion, Aleksey calmly withdrew his pistol and shot the man dead. The hesitators immediately scrambled down into the pit.

Looking up from the pile of hot ashes he stood in, Jesse pointed to Aleksey on the rim of the pit and said to Virgilio, “He’s the one who gave me the money.”

“Don’t be staring at us, you imbeciles,” Polopoff yelled.

“Look,” Virgilio said, “it’s that reporter lady.”

Elena had also appeared at the top of the pit with the package slung over one shoulder. Her other hand led Brooke by the elbow of one of her manacled arms.

“Where’s Bull?” Jesse looked around at the others crowded into the pit.

“He went to the Port-O-Potty,” Virgilio answered.

Elena had her back to the pit as she scanned the sky, holding Brooke’s elbow. Aleksey stood with his pistol trained into the pit while Polopoff stood next to him hurling threats and insults at their cowering captives. Both of their backs were turned toward the incinerators, so they could not see what Brooke saw, which was Bull returning from the toilet and walking up behind them. When he saw Brooke, he smiled and waved.

“Hi Brooke,” he called out.

Aleksey immediately spun around, but before he could train his gun on Bull, the big man slapped him in the middle of his chest, sending him sprawling and the gun flying out of his hand. Aleksey quickly pulled out a knife, but Bull stepped on his arm, and reached down with one huge hand to grab Aleksey by the neck. With one sharp yank and twist, Aleksey’s neck snapped and he rolled into the pit.

“Used to kill rabbits like that,” Bull said to himself.

The gun which had been knocked from Aleksey’s hand flew over the pit and landed just below the rim, not far from Elena’s feet. The men in the pit hesitated for a second, then scrambled frantically to the top, not toward Elena, but in the opposite direction, out of the pit and down the berm. Only Virgilio and Jesse remained, refusing to leave Bull, as Elena picked up the gun and aimed it at him.

“Frank, Mike!” Brooke yelled down from the top of the berm at Frank, Jim and Mike who had arrived and were just getting out of the car at the front gate. Elena swung her hand backwards, hitting Brooke in the face with the barrel of the gun, and knocking her down. Bull surged forward at this, but was stopped both by Jesse and Virgilio restraining him and Elena pointing the pistol at his chest. But she did not shoot, fearing the noise would bring Frank and Mike up to the top of the berm.

“Good job,” Polopoff said, “she’s had that coming since the day she was born.”

Elena glanced out toward the ocean at the sound of a helicopter. It was coming toward them over the water and below the height of the berm, as she had directed, “get down in the pit,” she waved the gun in the direction of Bull.

“That’s right, you oaf,” Polopoff said, prodding Bull, “she means you.”

“You too,” Elena pointed the gun at Polopoff.

Polopoff looked behind him to see who she was referring to.

“I mean you, Pawel,’ she said.

“What are you talking about?” Polopoff answered, “Vasyli said we’re all taking the plane together.”

“That was when we had the car,” Elena said, “the helicopter can only hold three plus the pilot.”

“But we’re only two,” Polopoff replied.

“The container is heavy, plus her,” Elena kicked Brooke who still had not risen from the sand after the pistol whipping.

“You’re taking her instead of me?” Polopoff’s mouth stayed open at the end of the question.

“You have zero value as a hostage,” she said, “get in the pit.”

“You expect me to climb down there with that filth?” Polopoff pointed to the others.

Elena could see that Frank, Mike and Jim had already found the phage container was missing from the trailer, and were now pointing to the top of the hill where she stood, and getting into their car. Behind them an unmarked police car was arriving with lights flashing through the front grill.

“Get in the pit as you are, or lie at the top with a bullet in you,” Elena leveled the gun at him as she said this. Finally Polopoff complied.

Elena yanked Brooke by one of her cuffed arms, “get up.”

Nose bleeding, and with her black eye starting to swell shut, Brooke rose to her feet. Elena, with the package of phages over one shoulder, forced Brooke alongside her as they half ran, half slid down the sandy slope to where the helicopter was landing.

The car Jim was driving made it to the top of the berm just as Elena was forcing Brooke into the back seat of the helicopter.

“Thank god you’re here, Doctor Skorzeny,” Polopoff called up from the pit when he saw three men standing on the rim, “Those damn Gordovskys kidnapped me and the girl.”

“Don’t believe him, Mike,” Jesse yelled, “he’s one of them.”

“We have to go save Brooke,” Frank said, “can you three hold Polopoff here?”

“How dare you?” Polopoff yelled up after him, “do you know what the mayor will do to you? Take your pig hand off me,” he tried to slap Bull’s enormous hand off his arm.

Bull looked at Virgilio, “he makes my ears hurt.”

“Your ears hurt because there’s nothing between them,” Polopoff tapped the side of his head as he spoke.

“Can we make him quiet?” Bull looked at Jesse.

Jesse looked at Virgilio, “I have an idea.”

“I think I have the same idea,” Virgilio replied.

Elena pushed Brooke into the back seat of the helicopter, and then threw the package of phage solutions in next to her. She then climbed into the front and they lifted off the beach.

Through her good eye, Brooke looked down at their footsteps below. In a second they would be over the ocean, “It’s now or never”, she told herself, and kicked the phage container out the door. It fell twenty feet and landed in the soft sand.

“No!” Elena shrieked, and tried to signal the pilot to land again. He shook his head and pointed to Frank, Mike and Jim running toward the package.

Brooke looked down to see the copter was already over the water, “it’s now or never.” she repeated to herself, then jumped from the helicopter thirty feet into the surf.

Though she tried to keep her feet under her, the moving helicopter, the handcuffs and the awkward way she had to jump through the door, caused her to rotate sideways and land on her side. This was fortunate, because the waves had receded just as she hit the water and it would have been so shallow that her legs would likely have broken. As it was, she was sent tumbling and choking when the next breaker hit her from behind. Without her hands, she was unable to right herself, and felt the undertow dragging her out to deeper water. Her lungs were burning to take a breath when a strong hand gripped her ankle, and Frank dragged her onto the beach. As her eyes cleared, she saw the helicopter zoom toward Kennedy Airport under a passenger jet which was coming in to land.

“Leave the package there,” Ed Thomson had come running down the berm, and needed to catch his breath between sentences, “a helicopter ambulance is coming to evacuate Brooke Daniels. It can take the container as well.”

“Have it sent to Bellevue,” Frank said, “I’ll tell Jane Simmons to prepare for it.”

Mike Carter came over and wiped the hair off Brooke’s forehead, “how are you feeling?”

After coughing out some seawater, she looked up at Mike and smiled, “what a story this is going to make.”

As Mike and Ed Thomson waited with Brooke and the phage packages for the helicopter, Frank and Jim trudged back up to the top of the berm where Bull, Virgilio and Jesse stood along with police officers.

“Where’s Polopoff?” Frank asked.

“He seems to have disappeared into thin air,” Jesse said.

“He got away?” Jim asked.

“You might say, he just went up in smoke,” as Virgilio said this, he Jesse and Bull turned to look at a plume of smoke rising from one of the incinerators.

“I see,” Frank looked sidelong at the police officers who were too busy documenting the scene to notice the conversation. He stepped away to call Jane with the news about the phage rescue.

“That’s great,” she said, “I’ll prepare the lab to resume amplifying. Yuri knows it pretty well now, and Lucy should return in a couple of days.”

“She’s safe?”

“Yeah, they found her in the Gordovsky complex,” Jane said, “I’ll tell you later.”

“When you get the package,” Frank said, “prepare one bottle to send to Atlanta for Rudi.”

“I’m sorry Frank,’ Jane said softly, “Tony Ribacci called an hour ago to let us know Rudi didn’t make it.”

When Frank hung up the phone, the helicopter which Ed Thomson had sent for was already loaded and lifting off. Mike climbed up to the top of the berm.

“I thought you were going with Brooke.” Frank said.

“That was the plan,” Mike replied, “but just as they were loading her, Ed Thomson collapsed with a heart attack, so they had to take him too.”

“This is a good day, a bad day and a terrible day,” Frank said, “I wonder if they’ll catch Elena.”

“I don’t know,” Mike said, “when Ed had the heart attack he was calling to alert the airport about the helicopter.”

As the three of them stood on the berm, another of the many airplanes departing Kennedy flew low overhead. On the tail, Frank could read the name ‘Potemkin.’

Although it was a great relief for everybody that the phage solutions had been recovered and the Gordovskys expelled, there was still a raging worldwide plague epidemic to be dealt with. Without Rudi Klarkopf, it was uncertain if any of the phage samples could still be identified in Gruenlicht, so the first focus was on confirming the viability of the solutions they had recovered and amplifying them to take the first steps toward large scale production. Bellevue was fortunate enough to have Frank, Jane, Cynthia, Lucy and Yuri all trained in the amplification and treatment methodology as developed by Rudi Klarkopf. The entire known quantity in the world of the phage solution, the only cure for the plague epidemic was the sixteen bottles in the container which had been through so much.

“How do we know they are still effective?” Cynthia asked.

“We need to pick a candidate patient and try a bottle,” Frank said.

“Wasn’t Brooke’s father infected?” Lucy asked.

“That seems to have just been a bluff,” Frank said, “there are no signs of injection and he has tested negative for exposure.”

“Here is the list of current patients,” Yuri handed a printout to Frank.

Frank started to sweat and tremble as he looked at the list. He finally handed it back to Yuri before leaving the room, “just pick anyone, it doesn’t matter, excuse me.”

“Look for the least critical,” Jane said, “Lucy, could you and Cynthia start amplifying one of the other bottles?”

Jane walked out of the room and found Frank staring out the window at the park, “what is it Frank?”

“I don’t know,” he said, “I just can’t keep the professional detachment anymore. I can almost see their faces when I read through the list. It’s like I know them all.”

“Do you think Rudi’s death has something to do with it?” she asked.

Frank hesitated a few seconds, “I guess he was my last link to Molly,” he said, “it’s not just that he died, it’s like she died all over again.”

“The world is counting on us Frank,” she said, “we’re right in the center of everything.”

“I know,” he replied, “I can do the science, I can do the laboratory experiments and the amplification. I just can’t think about the patients.”

“We’ve always each done what we’re best at,” Jane said, “we’ll keep going that way.”

When the next day the test patient responded favorably, they all had to agree on the excruciatingly difficult decision to withhold further treatment from the others until the phages could be amplified to a sustainable quantity. The first week in Bellevue consisted of just amplification, which required extraordinary political fortitude to resist the call from state, local and foreign governments to share the treatment immediately. The enormous publicity finally led to an agreement with several large pharmaceuticals to take on the amplification and distribution of the phages without the requirement for the extensive series of regulatory steps normally required of a new drug. They were also granted immunity from liability for any deleterious side effects which might occur as a result of the phage treatment. In turn the drug companies were only permitted the smallest profit margin which they readily agreed to since the production, transportation and application of the phage treatment were extremely inexpensive.

Initially, the members of the Bellevue team were deployed to the various companies both within the United States and internationally to assist them in setting up the amplification programs. It wasn’t long however, before the expertise in the rather simple procedure became so widespread and the technique so well documented, that there was no longer a need for specialized trainers. It would be weeks before the newly reported cases per day actually peaked, but peak they did, and then gradually as the international effort gained momentum, start to ebb. This happened first of all in the more developed countries which had the infrastructure and organization to mass produce and properly distribute the phage treatment.

Perhaps the most significant impact of the Grand Canyon Plague epidemic was the recognition that action needed to be taken to curb the abuse of antibiotics. The incentive for physicians to prescribe them before taking a culture and confirming the antibiotics would actually be effective against a particular infection was largely due to a fear of being blamed for not taking every precaution should the patient’s condition deteriorate. New legislation was proposed to limit the liability of a physician who ordered tests to identify the pathogen before prescribing antibiotics to treat it.

The practice of adding antibiotics to livestock feed for the purpose of increasing cattle bulk was addressed by a compromise which allowed the continued use of those early antibiotics such as penicillin to which the most resistance had already developed. Thus the newer antibiotics which were able to treat the resistant strains would likely retain their potency longer. It would still be possible for a veterinarian to prescribe any antibiotic required to treat an infection once the pathogen involved had been identified through a culture sample.

With these new regulations limiting the overuse of antibiotics, and the consequent lower likelihood that resistance would develop, there was a greater incentive for pharmaceutical companies to return to the business of developing and marketing antibiotics since they would not so quickly become obsolete. But most of the new research effort was being devoted not to antibiotics, but rather to bacteriophages.

Mayor Jenkins made a surprise comeback and easily won the election thanks largely to his being credited with decisive action in removing the corrupt Polopoff and his Gordovsky godfather which allowed the necessary steps to be taken to halt the plague. The manhunt for Polopoff continued for several weeks, until finally, after no trace of him was found it was concluded he had somehow escaped along with Vasyli and Elena Gordovsky. The helicopter Elena had used to escape from the Jamaica Bay landfill was found abandoned on an outer runway of Kennedy Airport not far from where the Potemkin plane had taken off. The helicopter had also been licensed to Potemkin Consulting and it was assumed the pilot had escaped with the Gordovskys on the jet. There had not been time to put in an alert for the Potemkin jet before it took off, but shortly after that, an alert had been given. By then however, there was no trace of the plane and investigators believed the tracking equipment and other means of ground contact had been deliberately disabled. There was a great deal of speculation about where the jet eventually landed. Its initial course was out to sea, but once the communications were cut, it could have turned in any direction.

Brooke Daniels organized all the information she had gathered during the Grand Canyon Plague epidemic, and used that along with the background data readily provided by her comrades in the adventure to write an enthralling article which The New York Tides published on the first page, thus establishing her career as a journalist. Her relationship with Mike grew closer, and eventually she joined Mike and Jim to complete the rim to rim Grand Canyon hike which had been aborted when Jim’s father Peter was evacuated as patient zero in the epidemic. Mike initially tried to return to banking technology, and Jim to project management, but they both had become minor celebrities through the fame Brooke’s article brought them, and were thus able to hire themselves out on speaking engagements.

Lucy Chao and Yuri Vassilov established a consulting company which was initially focused on assisting corporations and agencies around the world to implement the amplification and distribution of the Klarkopf Phage, as the cure had become to be known. Once the techniques and methodology became more widely understood, they were less in demand for their technical skills, but were then able to lecture widely on the technical challenges of fighting the epidemic.

Cynthia Foster’s career in the Department of Homeland Security had been damaged by what came to be seen as reckless behavior in attempting to isolate and analyze the plague. Tony Ribacci however, was able to offer her a position working in the CDC laboratory along with Catsi Nguyen, a job she performed excellently and without her previous zeal and ambition.

Ed Thomson, on recovering from his heart attack, was fully pensioned, but had become absorbed with tracking down the Gordovskys, and spent most of his time investigating leads, both from New York and internationally where he had cultivated relationships with law enforcement agencies in several countries which kept him up to date on recent sightings. Though he at first had been treated with amused toleration by his investigative colleagues, he gradually established himself not only as an expert on the Gordovskys, but in Russian crime syndications generally. He was often invited to assist in cases because of this expertise. But his focus was always on Gordovsky. He had given him a heart attack the way the whale had taken Captain Ahab’s leg, and Ed was bent on catching his own Moby Dick.

Jesse, Virgilio and Bull all received small settlements for what they had been put through because of the city’s contract with Potemkin. They set up a little comedy club in Brooklyn, which thrived, not because their act was good. It was not. But Jesse had a knack for running a business and finding acts before they became popular. Virgilio was a tough negotiator with the suppliers of the bar/restaurant side of the club, and Bull was, of course, the bouncer.

Although Jane remained in New York as the Medical Examiner with the full support of Jenkins, she kept in very close touch with Frank Skorzeny. On his frequent trips to New York City they would always meet not just to discuss epidemiology and interesting cases they were working on, but also to philosophize on life in ways Frank had never really done before. It was on one of these visits that they were sitting on a park bench not far from Bellevue when Frank had a couple of spare hours before he needed to catch an evening flight back to Atlanta.

“It’s not really that I make a conscious decision to avoid making friends,” he explained, “it’s just that it seems kind of pointless.”

“How is it pointless?” Jane asked.

“Maybe pointless was too strong a word,” Frank replied, “I do enjoy the company of my colleagues, but maybe I’m wary of the investment.”

“Because it may not pay long term dividends?” Jane smiled as she went along with the financial analogy.

“I remember before the Twin Towers were destroyed, they seemed so permanent, like mountains which had always been there,” Frank said, “whenever I got out of the subway, and wanted to get my bearings, I looked up in all directions, and if I saw them, I knew where I was. Then once they were gone, everything seemed transitory. Sure the new building is nice, but I know it could be gone in an instant,” he was quiet for a few seconds, “I just don’t want to have expectations beyond the moment.”

“But it wasn’t like that with Molly, was it?”

“No it wasn’t,” he said softly, “but no one can replace her.”

“You don’t need to find her replacement to meet other people who can make your life better,” Jane said, “and you theirs.”

They sat silently for a few minutes as they often did after one of these sessions, until their contemplation was broken by the voice of a small girl.

“That’s him, Mommy, I know it.”

Frank and Jane looked up as a Hispanic girl of about ten years old approached them gingerly with her mother. She smiled as she drew closer.

“Do you know who I am, Doctor?” she asked Frank.

Frank looked at her face for a few seconds, trying to place her.

“I was in your hospital,” she said.

Now Frank recognized her as the child they had chosen as one of the first five patients to test the phage treatment on, “Sorry, I do remember you now. I even remember your name bracelet – M. Jimenez.”

“That’s right,” the mother said, “Molly Jimenez.”

When tears started to well up in Frank’s eyes, little Molly stepped forward and hugged him, “you saved my life.”

“Let’s go, Molly,” her mother, seeing Frank’s distress, tugged at the girl to come along.

“You see, Frank,” Jane said, “For that girl, no one can replace you.”

“No one can replace Molly either,” Frank said, “but there are other Mollys to live for.”

THE END