**SYNDROME**



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**To my Mom and Dad**

# PROLOGUE

Beautiful, Pete thought. *Just plain stinking beautiful.* A buzz blew through his body, as if the prettiest girl in school had just kissed him. He leaned back in his chair and read the brief for the tenth time, eager to keep the buzz alive:

**Second Big Iceberg Breaks Off From Antarctica**
WASHINGTON (Reuters)—A second giant iceberg has broken off from Antarctica and is bumping into a huge iceberg that broke off the Ross Ice Shelf last week, researchers said on Friday.

Peter Jones, of the University of Wisconsin's Antarctic Meteorological Research Center, found the latest iceberg, which will be named B-29, while scanning images taken from a satellite orbiting the poles.

He finished the last sentence and noticed for the first time the item just below it:

**Pork Chop Stroller**
SYDNEY (AAP)—A man was awarded $60,000 yesterday by NSW District Court after he slipped on a greasy pub floor and broke his arm. The conditions were caused by a patron who wore pork chops for shoes. The incident occurred on May 25, 2006 at the Jannali Inn in Sydney South.

The court was told Mr. Simon May strapped the pork chops, which he had won in a meat tray raffle, to his feet after being told he would not be served more alcohol because he was barefoot.

Pete felt his smile slide from his face. How could Pork Chop Stroller merit placement next to his discovery? It was ridiculous. He took a deep breath, and reminded himself to stay positive. Two paragraphs. That was still good. A little short but good. It was obviously an edited version of the Reuters account. The writer talked to him for over an hour on the phone. It made sense that a longer version of the story existed.

Still, he couldn't complain. Page 32A of *The Sydney Morning Herald* and no doubt, countless other newspapers around the globe. Reuters didn't send Pork Chop Stroller to newspapers around the world. More importantly, none of his peers had seen their names in print, especially linked to a discovery of this magnitude. Hell, only a few of his professors' names had been linked to something this big. B-29 would forever be his iceberg. The buzz returned.

He sat up straight, the vertebrae in his spine crackling, and pulled his keyboard close, determined to find the longer version of the article on the Internet. Clearing off a spot on his crowded desk, he laid the newspaper down with the care of a mother handling a newborn. He entered the Web address for the *Washington Post*.

His instant messenger popped up. The address read: **s.fleming@eost.u-stasbg.fr**. It was Sarah, e-mailing from the SDLS branch in France.

It was morning for Pete, meaning Sarah was stuck on the night shift again. Good. She probably hated it, but it kept her away from those oily French men in the pubs or cafes or whatever they had in France. Jealousy coursed through his veins at the thought of her in some bar, guys

named Jean-Claude and Gerard all around her smoking European cigarettes and trying to buy her exotic-sounding drinks. Not that they ever talked about being exclusive, but…

He opened the message. It read: "Pete, congratulations! I've been soooo excited all day! You made it in both *Le Parisien* and *Journal Francais* this morning. Bobby and Karen can't believe it! Bobby's green with envy. We're all really proud of you. You'll be able to write your own ticket now. Has it sunk in yet?—S…"

Pete smiled. His head was light. He and Sarah Fleming, who were both finishing PhDs in atmospheric and oceanic studies at UW, had just started to date back in Madison when it was time for both to ship off for their year-long field placements. The good news was they both were working for the SDLS, so it was pretty easy to keep in contact.

The SDLS, short for the Antarctic Seismic Data Library System for Cooperative Research, was the first placement choice for both—hell, it was the first choice for any of the really good seismologists interested in environmental studies; at least the ones getting into the field for the right reasons, the ones whose sole interest wasn't to make the big bucks down the line working for one of the oil companies. The bad news was he was placed in the SDLS branch in Canberra, Australia and she was sent to the office in France. Still, whatever sparks ignited the previous spring still smoldered. He couldn't wait to see how things played out when they returned home in two-and-half months.

He let out a satisfied sigh. So what if the newspaper article was only two paragraphs long? At least Sarah had read those two paragraphs. She knew B-29 was all his. If

that didn't turn her on, nothing would. Take that, Pork Chop Stroller.

He started to type a reply when Sid Arthur darted around the corner. "Pete, come here. You've got to see this. Something unbelievable is happening."

"Calm down, Sid. What is it?" Pete followed Arthur into the lab—the computer room dubbed by one of the Aussie technicians, "the eyes and ears of the bottom of the world."

Sid was wild-eyed and hyper, totally out of character. The computers running the state-of-the-art Lamont 4-D seismic modeling software were going crazy, the screens bursting in colors of deep orange and bright yellows—shades reserved for only the most dramatic seismic events.

"Jesus," said Pete, taking a look. "What in hell is going on?"

"That's what I'm trying to tell you," said Sid. "I don't know. I thought at first there was a glitch in the program, but I've checked it three times now—there's nothing wrong. Where's Dean?"

Dr. Jonathon Dean was the senior Antarctic researcher assigned to the area by the SDLS. He was one of those guys that had seen it all in his time. At least that was how people always described him. In fact, as he often reminded both Pete and Sid, when he was their age he wasn't babysitting icebergs—he was on the first response team in the 1980 Kuchierabujima Volcano in the Ryukyu Islands. Years later, Dean's first book—the unwieldy titled *Seismological and Tectonic Deformation Studies in the Central Andes and Seismic Hazard Evaluation in the Peru-Chile Border Region*—became a cult favorite among seismology students across the world. It established Dean as a sort of Kerouac for the geologically inclined.

Dean would know what this was. The only problem was tracking him down. At times Dean's hours could make even a banker blush, and the more comfortable he became with Pete and Sid, the less he was around.

"He may not be in for a while," said Pete, looking at the wall clock that read eight a.m. "Ever known him to be here before nine?"

"Well, what do we do?"

Pete knew whatever was happening was bad. He wasn't an expert on the Lamont software. That was Sid's specialty, and he was becoming completely unglued by the readings on the screen. "Okay, let's figure this out," Pete said, trying to calm his roommate. "Tell me exactly what we're seeing."

"It's pretty damn clear, Pete. This software normalizes, calculates and identifies changes in the seismic conditions it's monitoring. I was having a look at a few of the islands off the peninsula when this thing went crazy. Yellow here—that's what you get in the case of an earthquake. And not any earthquake, but a mother quake—a 7.0 or above. The orange—that's reserved only for a cataclysmic event, say Mount St. Helens erupting. But both together? Hell, I didn't even know that was possible."

Pete leaned over and peered at the screens. The activity seemed to be centered in the Shetland Islands area, just off the Antarctic Peninsula. "What island is that? Can you pinpoint it?"

"King George Island. That looks like the epicenter. I was running the protocol to try to pinpoint the cause of the tremors we registered yesterday. That's when I stumbled across this."

Several of the research centers on King George had reported tremors the day before, as if the island were

rocked by a mild earthquake. The scientists Pete had spoken with were unable to substantiate any damage visually due to a heavy early season storm that had blown across the island, making exploration of the southern tip impossible. A geologist at the Russian station asked the SDLS for help in determining what was going on, and if they should be bracing for anything more significant.

Pete's initial reaction as he looked over Sid's shoulder was to ask why he was just now getting around to running the protocols, but he kept his focus on the crisis at hand. "So what are you saying, Sid? What is this thing telling us?"

"Unless this is a bad joke, this thing is saying that whole damn island is about to fall off into the ocean."

"That's not possible."

"Well, tell that to the computers."

"Jesus," said Pete. Of all the islands in the area, King George was most inhabited by scientific research stations. Even during the winter, the off-season for scientific teams in the area, the loss of life caused by such a disaster would be devastating.

"The real scary thing," said Sid, "is this is all just radiating from King George. I can't tell you for sure if King George is the only island in danger or if this is just the beginning, for all we know the continent, hell the *planet*, might be in the crosshairs. I don't know where this thing stops. I just have nothing to compare this to."

Pete grabbed the phone and punched in Dr. Dean's cell number. He and Sid were in way over their heads—they were a couple of kids who needed Dad. He may have discovered an iceberg, but a modern day Atlantis was out of his league. The call went to Dean's voice mail. Pete left an urgent message. His voice was calm but tense.

"Okay, let's think about this, Sid. What do we need to do? Who do we call to issue an evac warning, is it NOAA?"

When they first started, they'd both been briefed on emergency evacuation protocols, but neither paid very close attention. There'd never been an evacuation of the area, and short of a nuclear explosion or a runaway meteorite or, Pete surmised, this—whatever this was—they never thought one would be issued.

"I don't know who we should call," said Sid, his face glazed with sweat. "We can't be the only ones picking this up, can we? Someone else is probably already on top of this, right? Someone who knows a little more than we do."

Pete wanted to agree but couldn't. That was what he thought when he first spotted B-29, and look what happened: his name wound up in the newspaper. No one else had seen it but him. Which led him to thinking about what the headlines might read if he blew this one—*Atlantis II: Students To Blame*.

The short-wave radio crackled behind them. It sounded like a distress signal. Pete reached over and fidgeted with the radio's controls. The voice became more audible with each movement of the dial. Through the din of static, they heard the voice of an American.

"This is Arctowski Station. Do you read?"

Pete and Sid looked at each other. Arctowski Station, the research base operated by the Polish government, was located on the southern tip of King George. Glancing at the computer, Pete saw that this area was in the eye of the storm. The voice continued.

"This is Arctowski Station. Do you read? We have an emergency. Repeat: We have a Goddamn serious emergency."

Pete and Sid stared at each other. There was silence.

Pete said, “Let’s see if we can get McMurdo on the line ASAP. There’s a seismologist there named Colonel Pickering that I met once.

“We are way out of our league.”

# *FIVE DAYS EARLIER…*

# STAGE ONE: INCUBATION

: period after pathogen entry and before symptoms begin. Pathogen is multiplying but has yet to reach significant numbers to cause symptoms.

# 1. CONTACT

The morning fog was soupy, yet the camera's lens sliced through the murk, crossing the iron-colored ocean and passing over the rocky shores. The leading edge of the journey's first true sub-Antarctic land mass came into focus—the hauntingly beautiful South Georgian islands.

With a simple movement of her wrists, Brady Ryan focused on a huge King Penguin rookery. The stunning backdrop of soaring snow-clad mountains and massive glaciers framed the shot. It was an amazing composition, and the 3200-speed emulsion film she was shooting would really make it pop. The image certainly would be good enough to enter in the *Sun*'s amateur photography contest.

Framing her subjects, she caught the precise moment when the penguins ceased to look like birds, instead taking on the aura of elementary school children at play. Perfect. Clicking the camera's shutter, she captured the image again; the whizzing of the photo advance rendering her oblivious to the crashing waves and roaring engines.

After shooting nearly an entire roll of film, she let the camera dangle from her neck. The brisk wind washed over her face. She couldn't get over how good it felt. The air seemed much crisper, much fresher than at home. So this is what a world free of man's touch felt like. Maybe the

environmentalists at her office, where she worked as a P.R. specialist, were right. Maybe she should join the anti-pollution lobby. She couldn't remember a day the Chesapeake felt this good, this clean.

She leaned over the side railing and watched the nose of the steel-hulled, Russian research vessel, Akademik Ioffe, pierce the dark waters ahead and churn them into thick white foam. In the distance an iceberg the size of a two-story walk-up appeared and then disappeared in the fog. Pulling her color-blocked scarf snug around her neck, she turned toward the cabin. Through the doors, she spied her new husband sprawled on the tiny twin bed.

"Holden, come out here. It feels great," she called.

Predictably, there was no movement. Holden's mid-morning naps had become the norm. For the third night in a row he had stayed up into the early morning hours reviewing a three-inch thick stack of documents that had been delivered to him prior to leaving port in Ushuaia, Tierra del Fuego. The papers—laced with preposterously intricate mathematical equations, charts of all shapes and sizes and richly detailed schematics—lay in a heap by the side of the bed. His folded reading glasses sat on top of the pile.

Brady knew that for Holden this was intended as a "working honeymoon," that was the deal. That was why they weren't on the beaches of the Spanish island of Majorca like she suggested. She just didn't think the "working" would start until they made shore.

As honeymoons went, this was going to be of the non-traditional variety.

At that moment another flock of penguin came into view. Raising her camera, Brady saw a mother flanked by

two babies. Forget the *Sun*'s amateur photography contest. This had *National Geographic* written all over it.

"Holden, please get out here. You have to see this!"

Holden Ryan smiled and set his mug of black coffee on the simple wooden nightstand. His back was still sore from the jarring of the Zodiac boats during the shore excursion two days earlier. Pain radiated down his sciatic nerve. At first he tried to ignore Brady's plea, having found, after much work, a comfortable rut in the lumpy mattress. But Brady, seeing that he was awake, again beckoned, her sleek frame perfectly accentuated by the stark white of the snow in the distance. The sight made him smile.

He had gone and done it. Feeling the platinum band that still seemed so foreign on his ring finger, he was reminded he was married. He had proven his friends and colleagues wrong again. They all said the same thing, as if given talking points by some central bureau established to monitor the life of Holden Ryan. His old Sigma Chi cronies, his peers in the OR, the uppity resident surgeons, Kline, Glover—they all said no woman would, *could* for that matter, come between him and his only mistress, his work. They were all so sure of that. He chuckled. People would never learn to stop underestimating him. There was nothing he couldn't do when he put his mind to it.

He pivoted, bracing for a dagger of pain that did not come. Sitting on the edge of the bed, he stretched his long legs out before him. His back was still tender, but better. The Vicoden had done its job. The sharp knifing pain had turned into a dull aching one. That was good. He needed his A-game when they made shore. After reading the thick

stack of updates, he was encouraged—but also wary. Things were starting to slip out of his control. He didn't like seeing *cc: Stephen DeNardo* on the update's cover sheet.

People always told Holden he was a control freak. That very well may have been the case, but on this project—the most significant project of his career—no one could make that assertion. Both by his own wishes, and more recently the wishes of others, he had delegated more than he was comfortable with. In fact, so much had slipped from under his thumb that he had the sneaking suspicion he was being pushed aside.

He should have been stronger at the last board meeting. He should have looked each of the directors in the eye and told them what he was thinking, what he was scribbling on his notepad. If they kept their noses out of his business they'd all be better off in the long run. He was leading them not only into untold wealth but also into history. Nothing in their lives—not their business ventures, not their marriages, not the birth of their children, not their golf games, nothing—would in the end compare to the legacy they'd leave behind as the men who paved the way for the most significant scientific breakthrough since the invention of fire.

But it was a breakthrough that could only happen by supporting him. By leaving his team alone.

Of course, he hadn't said any such thing. That would have required more bravado than he was willing to demonstrate. It was hard to tell a group of successful, controlling, egotistical executives to keep their collective noses to themselves on the same day they signed paperwork granting an additional two hundred and fifty million dollars in financing. He would just have to play by

the board's rules for now. He'd have to keep them at bay until he could fully deliver, until he blew their minds with the vast array of new applications he had planned. Then they would be more respectful. Then they would see that he was their most precious asset. Then they would have that Rottweiler, DeNardo, stand down.

"Holden Ryan, am I going to have to come in there and get you myself?" Brady said. Her features narrowed.

He smiled. Time to snap to. He pulled himself up. A sudden spasm knifed from his lower back and down his left hamstring. He still had to be careful. He wasn't a hundred percent yet. He approached his… wife? It still seemed odd. Wife. W-i-f-e. What an odd-sounding word. It was like when you think about your name too long when you're drunk, it just sounded like such an odd amalgam of letters. Wife.

He had a wife.

"Aren't you the one who didn't want to spend her honeymoon in Antarctica?" Holden said, sneaking up from behind and sliding his arms around her waist. He leaned over and peered through the camera's viewfinder at the frolicking penguins. Adjusting the camera's angle, he focused on a different flock. "Here," he said. She looked into the viewfinder. "Emperor penguins. World's largest; stand about three-feet-high. Only Antarctic bird to breed in winter."

"How do you know that?" Brady said. She was trying to catch him making something up. He knew she was of the opinion that at times he was too sure of himself. That was the price she paid for marrying a surgeon—especially the dreaded research surgeon.

"While you napped yesterday, I snuck up to the wildlife lecture in the second floor library," he said. She rolled her eyes. "So, are you enjoying your honeymoon?"

"Tremendously. When'll we dock on King George Island?"

"Late tomorrow. Today we'll hit the Beagle Channel and Drake Channel. Tomorrow morning, Deception Island."

"And when do we leave for Arctowski Station?" she asked.

"Day after tomorrow, we have a helicopter chartered to fly us there." He paused, and took in the scenery. Brady was right. It was a spectacular morning. The sun was beginning to burn through the cloud cover, causing small patches of water to sparkle like a treasure chest of jewels. "Some of the others are going to try to take out the Zodiacs later, see if they can reach a couple of these smaller islands, have a poke around. The captain asked if we'd like to join. Want to? It'll give you a chance to shoot some penguins and elephant seals."

She nuzzled close. "Nah," she said, a gust swept her bangs into a peek-a-boo. "We've got this big cabin, let's stay in. Just you and me."

On the edge of a balcony near the ship's bridge, a man stood watching the couple through a single surveillance scope no thicker than a Mont Blanc pen. He glanced down at the two tattered dossier sheets in his hand. The top sheet, the one on the man, Holden Ryan, was detailed—a good job by the researchers—but the woman's sheet was bare bones. Good thing he went the extra step. The last three

days had helped flesh out their personalities, particularly hers.

Through his earpiece, which was synced to an elaborate network of tiny microphones dotting the couple's stateroom, he eavesdropped on their conversation. She told her husband again that she loved him, pulled him into the cabin, and there were no more words, just the sounds of intimacy.

The man wadded up the dossier sheets and tossed them over the railing, the wind catching them and carrying them far off into the distance. He shoved the scope into his pocket and moved the butt of his pistol, which had slid down his waistline, back under his coat.

Everything was progressing according to plan.

Of the entire passenger list, Holden and Brady Ryan were the only two not part of a large and rowdy group of runners making their way to King George Island for the 13th-annual Antarctic Marathon. Even with this knowledge ahead of time, Holden had sold Brady on the belief that the ship's passage would be an intimate, romantic voyage. That wasn't the case. Not even close. Luckily, Brady didn't seem to mind.

Somehow, they'd stepped onto the biggest party boat in the Russian fleet. The runners bristled with excitement. The international group was scheduled to run a 26.2 mile looped course that would take them through the scientific research bases established on King George by Uruguay, Chile, China and Russia. For the runners it was a chance to fulfill the holy quest of marathoning, having raced on each of the seven continents.

"Antarctica is fifty-eight times larger than Britain and more than ninety-nine percent of it is frozen in thick ice, with hundreds of lakes below its ice sheet," said Ichiro Nishi, a Japanese marathoner. He shared a table with Brady and Holden at dinner. The evening's mood was jubilant, and Nishi beamed, his smile seeming to start in his heart and radiate through his eyes. At seventy-years-old, he was a wisp of a man. Standing a mere five-foot five, he weighed no more than a hundred and thirty pounds.

"You know so much about the continent, Mr. Nishi," said Brady.

"Mr. Nishi lived here on-and-off for almost three years in the late seventies," said Holden. He'd met Nishi the evening before. "In fact, Mr. Nishi worked at Arctowski Station."

"That's right, I understand you will be spending several days at Arctowski, Mrs. Ryan," said Nishi. "I was a member of the original scientific team that opened Arctowski for the Poles in 1977. It's very much changed since then. I'm sure you've read about the famous biosphere built there? Very impressive. When we opened the facility, it was for pure research. Biological science was my specialty. Arctowski is on the southern tip of King George, directly facing continental Antarctica. Far removed from the other stations on the island."

"How many stations are on the island?" said Brady.

"Let's see, the Brazilian Ferraz Station," he said.

"Russia and Chile," added Holden, twirling his pasta on his fork.

"Yes, they are on the western side of the island. That's the location of the major cluster of stations—China, Korea, Uruguay."

"What about the U.S.?" asked Brady.

"The U.S. Navy operates McMurdo station," Holden said. "It's not on King George, though; it's on Ross Island. I think there are ten stations in all on King George."

"Yes," said Nishi, "and in all one hundred stations and twenty-nine countries represented on the continent. It is the highest compliment to all scientists that this can occur without putting Antarctica under the dominion of any one country. It is the world's last great shared frontier."

Another man approached. He was an American with a well-groomed black beard and dark shaggy hair bordering on dread-locks. He had the lanky build of a cross-country runner and the off-center nose of a football star. "Mind if I have a seat?" he said.

"Certainly not," said Nishi. "Allow me to make introductions. Brady and Dr. Holden Ryan please meet Mr. Bindu Polmeroy. Mr. Polmeroy, I believe, is the only traveler besides the two of you not running the marathon."

Brady smiled. "That's a relief. Seemed we were the lone interlopers."

"What brings you to the Antarctic, Mr. Polmeroy?" said Holden.

"Actually, Nishi. I'm a freelance journalist, and I've been assigned to profile Nishi for *Newsweek*."

"*Newsweek*?" said Brady, surprised. "Big stuff. What for?"

Polmeroy chuckled. "Nishi isn't much of a self promoter; I don't know what you've found, but every time I get him talking, the subject quickly veers to his wife, of whom he talks quite volubly. I could write a biography of her, but barely a cut-line on Nishi."

"You must love her very much," said Brady, looking toward Nishi.

"I do."

"Is she aboard?"

"I'm afraid Aki passed several years ago."

Brady grimaced. Holden knew she felt she'd put her foot in her mouth. "I'm terribly sorry."

Nishi smiled and patted her arm. "Don't be, Mrs. Ryan; she still very much lives within."

Brady smiled. "So, Mr. Polmeroy," she said, "what's this story about?"

"Very simple: Mr. Nishi has run some two hundred and twenty-eight marathons in fifty-four countries. If he finishes the race day after tomorrow, he'll have run a marathon on each of the seven continents in one hundred and sixty-eight days, and that is a certifiable *Guinness* record."

"Please," said Nishi, embarrassed. "Why do people care about the accomplishments of the old? Mr. Ryan, tell us about your project, I'm sure everyone would be far more interested."

"Actually this is pretty interesting," Holden said. "Two hundred and twenty-eight marathons? That's amazing. I have a three-mile course I sometimes run around my—I mean, *our*—house and I get winded after the first mile. "

"Please," said Nishi. Closing his eyes, he sighed. "If my wife were still among us, she'd say that two hundred and twenty-eight marathons is two hundred and twenty-eight too many. You would do me honor if you'd tell us of your work. Young Mr. Polmeroy is quite charming, but whenever he's in the room, which is always it seems, I am forced to speak of myself. Please, indulge us, it will allow me to digest my meal."

Holden, Brady and Polmeroy swapped smiles. "Go for it," said Polmeroy, digging into his meal. "Talking about Nishi gives me tired head. I told him I was going to call my

editor and say we should hold out until he reaches five hundred marathons."

"Well, okay," said Holden. "Have you ever heard of nanotechnology?"

Nishi shook his head and Polmeroy shrugged. Holden began, "For the most part scientific discovery is not a volcanic eruption. It's much more methodical, like the Colorado River, slowly cutting through the Grand Canyon; taking generations to reveal its ultimate design. But every so often a volcano does erupt; a breakthrough is made that changes everything. My team is sitting on the Mount Vesuvius of scientific breakthroughs. It will truly change everything."

He paused and decided where to begin. He had been through this speech a thousand times, especially during the intensive period when he was trying to sell investors. As if double-clicking his mental mouse, he brought up the abbreviated explanation and launched in.

"You see manufactured products are made from atoms. The properties of those products depend on how their atoms are arranged. If we rearrange atoms in coal, for instance, we can make a diamond. If we rearrange atoms in sand and add a few other trace elements, we can make computer chips. If we rearrange the atoms in dirt, water and air we can make a potato.

"Today's manufacturing methods are very crude at the molecular level. Atoms are moved in great thundering statistical herds. It's like making things out of Lego blocks only you have boxing gloves on your hands. Yes, you can push the Legos into heaps, but you don't have the agility to snap them together the way you'd like."

"You're talking about atom manipulation," said Nishi.

"Exactly. In the future, nanotechnology will allow us to take off the boxing gloves. We'll be able to snap together the basic building blocks of nature easily, inexpensively and in almost any arrangement we desire.

"This will be particularly exciting in the field of medicine. If we can build machines at a molecular level, these machines can be equipped with tiny onboard computers programmed to seek out and destroy any number of maladies, from plaque causing tooth decay, the virus causing AIDS, or the tumors associated with cancer. They could do so with far deadlier accuracy than any drug or treatment option available today, because they would do something today's methods can't. Can you guess what that is, Mr. Nishi?"

"If I follow your line of reasoning, it's because these tiny machines will be able to combat the diseased cells head on, bypassing healthy cells."

Holden approved. "Exactly. Drug molecules and radiation particles presently used to treat diseases are dumb. They bounce around the body randomly until they hit a diseased organism, frequently failing to kill that organism or killing healthy, benign cells instead. Anti-disease nanomachines, in contrast, would be smart devices, able to recognize specific microbes or cells and then target them for destruction with close to absolute, one hundred percent precision. It's the difference between a howitzer shell that kills indiscriminately and a high powered rifle with a telescopic sight that kills only a specific target."

"You are building these tiny machines?" said Nishi.

"We don't build them, we are focusing on the medical and biological R&D. Our lead benefactor, a tech firm in California, is actually building the prototypes. They

construct the shells at their campus in Palo Alto, and ship them to the lab we've established down here for assembly."

"And where again is that lab?" asked Polmeroy.

Holden was surprised. He wasn't sure Polmeroy was listening.

"We've leased space at Arctowski Station from the Polish Academy of Science."

Polmeroy slowly receded again.

Holden turned his attention to Nishi. "A typical cell measures anywhere from a thousand to a hundred thousand nanometers in diameter. The tiny robots we are working with measure anywhere from two hundred to five thousand or so nanometers in size. They're built with a carbon structural frame, nano-scale grasping tools, molecule-sized motors and logic gates that serve as the basis for molecular-scale computers."

"Amazing," said Nishi.

"Mr. Nishi, in twenty years, if this technology continues to advance, we could almost guarantee that you could live another fifty to a hundred years and maybe reach five hundred marathons." Holden looked at Polmeroy, whose concentration seemed locked on his dinner. A journalist. Holden's suspicions that EOC was trying to force him out of the project had weighed heavily on him in the last few weeks. He couldn't let them force him out. This had been his vision from the beginning, and he had nursed the project for too long to be cut out now. He would desperately love to interest Polmeroy in doing a story on the project; *to do a story on him*. It couldn't hurt to ask. "Perhaps this could make an interesting article for *Newsweek*, Mr. Polmeroy."

Polmeroy's eyes re-focused on Holden with the surprise of a student called on by the teacher. He dabbed

the corners of his mouth with his napkin. With a shrug he said, "Perhaps the magazine would be interested, I really can't say. I'm just a freelancer."

Holden sensed that he piqued Polmeroy's curiosity.

The journalist's eyes narrowed, "Why Antarctica, though? How come you can't do this in some lab in the United States?"

"Because this type of work scares a lot of people. Washington, as myopic as ever, has made research more difficult since the 2007 ban on biological nanotech testing. Sheer American parochialism, that's all. The mix of genetics and robotics is just too explosive for many, particularly certain religious bents, not to mention the poor souls who waste away their days dreaming up disaster scenarios. Disasturbators, as we call them. A station like Arctowski in a region like Antarctica, which does not come under any particular country's jurisdiction, leaves open the door for research and discovery."

Polmeroy offered a cockeyed grin.

Holden felt challenged. "What's the matter, Mr. Polmeroy?"

"Like I said, I'm not much into science and I don't think I'm a 'disasturbator.' It just seems we're moving into a different age, not necessarily a worse age, but an age where danger is a bit more, well *dangerous*. An age where we may want to more closely assess future ramifications before we move forward. I'm not saying you're not doing this, Dr. Ryan. For all I know you might be the most forward-thinking, cautious scientist on the planet. It just seems like we've developed an awfully cavalier attitude towards new breakthroughs, and I'm not sure I'm comfortable at first blush with the idea of robotic molecules injected into human beings. In our bias towards instant

familiarity and unquestioning acceptance, I hope we carefully consider and protect our most valued trait—our humanity."

While the debate raged on, Brady called it a night. She had heard Holden's nanotechnology sales pitch too many times before. She curled up in her cabin with a two-year-old edition of *National Geographic.* She had stumbled across the magazine in the ship's library.

The tattered cover trumpeted something about Inca remains. It was a subject of little interest to Brady. The secondary feature was much more significant. A beautifully shot eight-page pictorial chronicled Arctowski Station's famed biosphere experiment. Nishi had referenced the experiment at dinner and the ship's crew seemed envious when they learned she'd be visiting the sight. Apparently it was quite the attraction for Antarcticphiles.

The magazine's primary focus was on the facility's lush reproduction of a South American rainforest and its over five hundred species of animals.

Brady took special note of the stunning double-truck photograph of the biosphere's main curiosity, the only known black cougar in captivity. It was a great looking image. The silky-coated animal looked like some sort of Rorschach test when placed against the lush tropical foliage. Reading the photo credit, she laughed. Ralph Richardson. He was a friend. He was the one who got her interested in photography in the first place.

She drifted to sleep, and several hours later awakened to the sound of the cabin door opening. It was Holden. She glanced at the digital clock on the nightstand. One a.m.

"Have you been arguing with that man all night?" she asked, yawning.

"Not arguing, debating," he said. He undressed and slid into bed. "Polmeroy's a good chap. A bottle of Cognac. A lively debate. The captain even joined. We had a nice time."

"Nicer than seeing your wife to bed on your honeymoon?"

"Sorry, Braid. It's just, you know how I get."

"I know, trust me."

"I can't fathom the way a guy like Polmeroy thinks. Know what he said?" Mimicking Polmeroy's raspy voice, Holden said, "'Failing to understand the consequences of invention while in the rapture of discovery and innovation seems to be a common fault of scientists and technologists.'"

Brady laughed.

"What's so funny?" he asked.

"You. How can you remember some off-handed remark from a total stranger verbatim, yet I have to remind you of your own mother's birthday?"

Holden shook his head.

"Did Mr. Nishi stay up with you two?"

"No, Nishi retired soon after you."

"Wasn't it sweet how he went on about his wife?"

He relaxed. She sensed the lumpy mattress felt good to his still ailing back.

"Know what Polmeroy told me?" he said. "Nishi has advanced prostate cancer; has less than a year to live."

"That's terrible."

"Can you imagine that, and he still runs all these marathons?"

"The human spirit is amazing," she said.

"Precisely. And that's what everyone who is afraid of machines taking over our lives, our world, doesn't get. For all machines can do, they can't—they won't *ever*—be able to duplicate the human spirit."

Polmeroy jogged down the narrow corridors of the ship, stopping in front of his cabin's door. "Damn it," he muttered, fumbling for his keys. The timing function of his wristwatch counted backwards to zero. It read four minutes and eleven seconds. This was going to be close. He shoved open the door and stepped into the small interior stateroom. He shouldn't have spent so much time with Ryan, but what was he supposed to do? Things were going too well.

He flopped on the bed, pulled his Tablet PC from his bag, and switched it on. He glanced at his watch: three minutes and forty-five seconds. The computer instantly booted up. The screen lit up and a voice said: "What is your password?"

"Foreign correspondent."

A meter displayed on the screen pulsated to the rhythms of his voice before glowing green. "Speech recognition cleared. You may begin, Mr. Polmeroy."

He took the digital pen attached to the side of the unit and pulled up the onscreen input panel. He stopped. Time was wasting and he was a horrible typist with the digital pen. Screw it. No one was listening. "Voice activation," he said. "E-mail memo."

The screen flashed. A blank e-mail memo appeared. "To whom do you wish to address this e-mail, Mr. Polmeroy?"

"Clearance FN90, Delta, Alpha, One."

The computer inputted the data. Tiernan's access code appeared in the address line. "Ready for text dictation," the unit said.

Polmeroy glanced at his watch: one minute, forty-five seconds. *"I have made contact with our asset. He fits the profile exactly."*

Polmeroy's spoken words converted to typed letters on screen.

"*Everything is just as we thought, and I do not foresee any complications with the first stage of the operation. The wife could be a key; will work her for information more rigorously tomorrow. Please apprise me of location of backup teams. I will contact you upon arrival at Sub-Zero X."*

He paused, and read the message. Forty-Five seconds. He added: "*If there are any weaponized strands of the prototype in play, I'll know within forty-eight hours. Better to mobilize Berlin, though, in case the news is what we suspect."*

That would have to do. "Okay, please transmit," he said to the unit.

The red light on the built-in satellite modem glowed. The progression of the transmission was marked on screen. Forty-percent. Fifty-percent. Sixty-percent. He looked at the watch, twenty seconds. Eighty-percent. Ninety-percent. One-hundred-percent. "Transmission successful," said the unit's voice just as the watch's alarm sounded. "Would you like today's headlines and the weather reports for your book marked cities?" He took a deep breath and relaxed.

He'd gotten today's message off just before the satellite J-12 disappeared from the communications horizon.

# 2. TRANSMISSION

After reaching King George Island, the Akademik Ioffe was due to drop anchor less than a mile from shore, but the weather, mild to this point, turned nasty. A rare southeast wind tore across the island and churned Maxwell Bay into frenzy. Snow blew horizontally through the sky and crashing waves made it impossible to drop anchor. The crossing of Drake Passage, the earth's most turbulent body of water, had been smooth, but now crew and passengers paid the price.

The day's itinerary called for marathon participants to be transported to the island for a glimpse of the racecourse's rugged terrain. However, the messy conditions made it absurd to pretend landing crafts could make shore. Equally bleak was the forecast issued by NOAA, the U.S. National Oceanic and Atmospheric Administration. The next several days looked just as turbulent. The captain and race organizers were forced to explore their options.

First, Captain Apenktin decided to set sail for smoother seas to the south. Despite the ship's state-of-the-art stabilizer system, the twenty-foot swells caused several passengers to complain of seasickness. The Dramamine supply was already running thin. The chosen destination was a calm area just off Nikko Harbor, a natural inlet off

the peninsula. There the ship could moor for the night in relative peace.

Secondly, what should be done about the race? Inclement weather couldn't cause cancellation; the entrants had trained too hard and traveled too far. The decision was made that if the weather hadn't cleared at the race site by nightfall, they'd stay in Nikko and as absurd as it sounded, do what they did back in 2001—they'd run the race aboard ship. That meant runners would make four hundred and twenty-two laps around the outer deck. It would not be what the participants had hoped for, but it would constitute an Antarctic marathon.

The weather was also hampering Holden's plans. A helicopter had been chartered to pick up he and Brady at Maxwell Bay. He would need to contact Arctowski Station and inform them of the change. Captain Apenktin allowed Holden onto the bridge and granted him access to the ship's INMARSAT, a telephone system that was the vessel's only link to land. INMARSAT, which stood for International Maritime Satellite System, was an international cooperative established in 1979 to provide mobile satellite communications worldwide for the maritime community. Because of it telephone, telex, fax, e-mail and data connections were possible in Antarctica.

"This is all we have, sir," said the captain. Unlike that of his crew, the captain's English was pristine.

He showed Holden the INMARSAT. In whole it was about the size of a briefcase and connected to the ship's antenna.

"AT&T hasn't made it down here yet," said the captain. "It's satellite phone, HF radio, VHF radio or message in a bottle. Punch in 002 plus the Ocean Code plus

the mobile earth station number and you'll be connected straight away, Dr. Ryan."

Holden smiled. He didn't have the foggiest what any of that meant. Luckily, Dr. Julian Glover had wisely sent him an e-mail detailing the dialing codes and instructions. Glover, Holden's close friend from Oxford and partner in the development and implementation of the project, was already at Arctowski Station. In fact, it was because of his considerable political clout with the Polish Academy of Sciences that they were able to gain permission to use Arctowski Station.

Six months earlier Glover had led a team of eight young research physicians to the facility to begin the first eighteen-month rotation. Holden was eager to speak with him. He took Glover's e-mail from his coat pocket and punched in the codes. There was a connection and then ringing.

"The weather isn't very good, and this being a Tuesday, the satellite is a little out of position, so don't be surprised if your connection sounds like you're talking underwater," the captain said. "It takes a little getting used to."

A voice answered. The connection was wrought with static. Holden identified himself and asked to speak with Glover. After a moment of silence the London resident was on the line.

"Holden… welcome to Antarctica."

The connection was poor. Holden was forced to concentrate to understand. "Good to hear your voice, Jules. How are things going there?"

"Not… bad. Mostly… the staff is very… but they're learning."

"Listen, Julian, you are breaking up a bit. Can you hear me clearly?"

"… but yes, I can… clearly."

"Okay. We've encountered a nasty turn of weather here at Maxwell Bay. We're trying to avoid the storm by heading south to Nikko Harbor. Can you place that?"

"Yes… Harbor… we have the coordinates… okay."

"You'll need to arrange for the helicopter to rendezvous with Brady and me there tomorrow."

"Roger that… we've made arrangements with Germany to… helicopters… a Hughes 500D… copter will rendezvous with you at… at Nikko…"

"Sorry, Jules, I did not catch the time."

"… 1730 hours, Auckland time."

"Got it. Looking forward to seeing you and Fiona, and seeing the progress made."

"Holden… good you… coming… extreme developments… the project."

While Holden borrowed the INMARSAT, Brady found herself in the forward lounge with Polmeroy.

"Look at these people," said Polmeroy. The room was crammed with worried runners. They stared at the threatening skies as if they might wish away the clouds.

"What a shame. All this distance, only for this. I feel particularly bad for Mr. Oliver," she added, pointing to Demerick Oliver, a runner from Toronto. He had raised fifty thousand dollars for kidney research by agreeing to run the race. The look on his face spoke to the heavy obligation he felt to return successful.

"What about you, Mrs. Ryan…"

"Please, Brady."

"…sorry. Brady, have you ever been this far from home?"

"I don't think it's possible for a girl to get any farther from home, unless she's Sally Ride. Before this, I'd only ever been outside the U.S. once, when Holden and I went to one of his conferences in Paris last fall. Wait, I take that back, I was also on a Caribbean cruise with my parents with I was seventeen. The Caribbean doesn't really count though, does it?"

"Only if scoring drugs or running from justice. Or both, I suppose." Polmeroy took a drink of Heineken.

"Well, I was neither…" She smiled and sipped her mug of hot chocolate. She didn't know what to make of Polmeroy. He seemed like a good fellow, gregarious and interesting. Yet there was also something, well… a bit aloof about him. She could not quite put her finger on it. When Nishi described Polmeroy as "charming," he was not wrong; he had a sleek self-assurance in his manner. There was just something about his eyes. There was a glint that at times suggested mischief. At other times it hinted at something much deeper, much darker. "My husband said you had quite the debate last night."

"We did; good fun."

"That's how he described it. He thinks you know far more about science, about the type of work he's involved with, than you let on."

Polmeroy smiled and topped off his glass. "Perhaps. It wouldn't be the first time I was, as our Russian friends on board might say, *ty mne van'ku ne val'aj*."

Brady looked at him, not offering anything.

"Loosely translated, that means 'pretending to be dumber than you really are.' I've done a couple of stories for various publications on nanotechnology. I didn't say

anything about it last night because it, well it seems like bad form to be contrary five minutes after meeting someone unless the situation absolutely calls for it. You guys seem nice, and I was a bit tired, and well, the situation didn't call for it."

"But it did call for a lie?"

"Not a lie, an omission. Hey, never said I was perfect. I'm by no means an expert on nanotechnology, genetics or robotics, but if it's time to be honest, then I'll be straight. I'm not a fan of your husband's work. I think it has consequences that haven't been completely thought out. If you really want to know my opinion, I think he could be meddling with something profoundly destructive, and guess what, I'm not the only one with that opinion."

Brady smirked. Polmeroy's sudden candor irritated her. It also made her uneasy. How much truth there was in Polmeroy's words, she was unsure. She feared there might be more than she really wanted to know. It was a continuing frustration for her. She didn't like being in the dark.

On several occasions she had asked Holden to explain the project in detail. Her efforts were never rewarded. He would talk at length about the long-term benefits or discuss the current research in broad strokes. There was never anything more specific. That was fine at first, but over time it became irritating. It was her fault for things getting to this point. Never once had she pressed Holden. So much had happened in such a short time—her promotion at work, the wedding—that getting into the scientific nitty-gritty just seemed to be something that could wait. It never dawned on her that there could be anything dangerous about Holden's work. Until recently. Until DeNardo.

"So you're saying, what, my husband is Oppenheimer?"

"No. From all I've read Oppenheimer was an asshole; your husband is a gentleman. I'm saying Holden has yet to come to terms with what so many scientists have yet to come to terms with: that the most compelling twenty-first century technologies, be it robotics, genetic engineering, or nanotechnology, pose a much more deadly and *frightening* threat than any weapon that has come before. They all share one dangerous—science fiction sounding as all hell, but damn real—amplifying factor: they have the ability to self-replicate. A bomb—*the* bomb, *the nuclear bomb*—can only blow up once, but one of Holden's nanomachines, these tiny robots that are part thinking machine, part organic living thing, are designed to act like molecules and one molecule *always* becomes two molecules and two molecules becomes four molecules and before you know it we're lousy with robotic molecules and you, me and everyone else from Berlin to Bangkok to Boston have a helluva problem."

Nicholi Rossini, the captain of the Zodiac crew, stepped atop the bar. He tapped a bottle of wine to gain everyone's attention. Citing an old mariner's tradition of hanging women's underwear from the mast to ward off bad weather, he pleaded for donations. The room roared with laughter.

"Please, I ask all of our ba-u-tee-ful ladies to consider my request," he said. "Even if it doesn't work, the ship will look *bella*!"

The crowd's morale was buoyed. They raised their glasses to toast.

The scene didn't register on Brady. She clasped the pewter cross she wore around her neck between nervous fingers, stroking her chin with its red Carnellian center.

"Interesting cross," said Polmeroy.

She let it slide from her fingers. "Thanks."

"What is it, if you don't mind me asking? Looks like an heirloom."

"My father's, he gave it to me as a girl; said it was the famed Robin of Locksley cross."

"The what?"

"The cross Robin Hood wore when doing whatever he did. It's not, though. Just a cheap nick-knack my father picked up on a business trip. He liked to tell stories." Her nose wrinkled with a tinge of embarrassment. "Kind of a security blanket."

Before Polmeroy responded, Brady remembered what distracted her in the first place. "What Holden is working on isn't a weapon. He's a doctor, he's working on ways to help people, not harm them."

"Holden thinks he's working on a medical breakthrough, and there is no doubting the medical implications of his work. Just ask yourself this, though… if there aren't deadly applications to this technology, then why are we having this conversation in the middle of the polar ice cap? How come you aren't on the beaches of Southern California while Holden is checking in on his project at UCLA? There is a reason why the U.S. government, and every other government around the world keeps such close tabs on this type of research." He polished off his beer. "Think they cared this much when aspirin was invented?"

Polmeroy and Nishi again joined the Ryans at dinner. A sampling of Argentinean beef and lamb highlighted the menu. Holden beamed, looking very much the part of the brilliant young scientist. He looked like he had just fallen from the pages of *GQ*. He wore a mushroom mohair three-quarter coat, slate merino wool turtleneck, and charcoal stretch pants.

As Brady said of her charismatic husband, "He can tuck a napkin beneath his chin and it looks so good that strangers will approach asking him where he's gotten it."

The seas were calmer in Nikko Harbor. It was announced that the race would be held in the morning on deck. As dinner was served, the fifth and sixth decks were measured with a length of calibrated rope. Courses of three hundred and twenty-four and four hundred and twenty-two laps respectively were marked.

Nishi revealed his race strategy: run slow, take pictures, and chat with volunteers. "I enjoy the wholeness of a marathon," he said, "not the competitiveness."

Brady listened, but grew more reserved as dinner progressed. Nishi amazed her with his spirit and enthusiasm. Considering his condition, he was even more inspiring. If he was a generator a house full of appliances could run off him. He was incandescent. She was tempted to ask him about his cancer, but didn't. If he wanted to speak about it, wanted Holden and herself to know, he would say something. She would respect his privacy.

There was another reason for her silence, though. She could not keep her conversation with Polmeroy from her mind. She was an intelligent woman. In her field, her resume was just as impressive as Holden's: a vice president for Ogilvy Public Relations World Wide at the age of 32, protector of the firm's top two billing accounts (the first

female in the firm's history to make that boast), a frequent commentator on media trends in *The Baltimore Sun*.

She had accomplished too much to play the unwitting bride.

She loved Holden. He was brilliant and handsome; the dark, Heathcliff eyes, the deep grooves like parentheses around his mouth, the strong chin. But like anyone else, he wasn't perfect. He had an arrogance that too often assumed success. That scared her, especially considering the type of work he was now involved in. What was the worst-case scenario? She didn't know. She had a bad feeling. Everything was moving so fast. At times it seemed out of control. As a new wife she wrestled with a central question—where was the line that separated belief in your spouse from blind devotion to him?

She knew one thing. All she wanted was to go home. Starting their everyday life as husband and wife—that's what she wanted. She was fearful something was going to get in the way of that.

She picked at the lamb and taking small, tentative bites of the beef, when her husband's voice pierced her thoughts.

"Really, I want the two of you to come. Come see what I've been talking about. Nishi, I know you'd love to see Arctowski Station again. And Polmeroy, I think when you see the type of research we've undertaken, you might have a slightly less Luddite view of nanotechnology. Maybe then you can get *Newsweek* to write that story!"

Brady wanted to say something, to counsel her husband. Was this a good idea? Should he bring strangers to see something that he had yet to inspect himself? And not just strangers, but a reporter, a journalist? Before she could say anything—or even kick his shins—Nishi spoke.

"But we have a matter of the marathon, Dr. Ryan." She felt better. The marathon. They couldn't go.

"We aren't leaving until late afternoon, you'll have plenty of time," countered Holden. She sensed he was a little drunk. "The race starts at seven in the morning, for goodness sakes. Listen, we're going for three days and then we are meeting the ship back at Deception Island. Please, I'd really like the two of you to come. Hey, when was the last time you took a helicopter across the Antarctic?"

Brady's heart sank. "I would be honored, you are very kind." Nishi raised his glass.

Polmeroy also lifted his glass. "I'm in. It'll be like going to Los Alamos in 1945. Should make a helluva story in fifty years. If we're still all here."

In the morning, the marathon went off as scheduled. The runners were assigned three different starting times, and volunteers were put in place to count laps. Nishi was in the first wave, which was a mess. With the narrow hallway of the fifth deck playing host to three different groups—marathoners, half marathoners and a group running for five hours even—chaos reigned. The course was crowded, and the sixth deck was slippery. No one seemed to mind, though, even as the ship rocked and rolled through the waters of the Bransfield Straight.

Despite being in the first group, Nishi was the very last runner of the day to finish. He completed his quest in just over seven hours. The ship's photographer and Brady, who caught a particularly jubilant shot of Nishi bounding across the finish line, documented the occasion. The other runners, who had already finished, waited at the finish line. A man from *Guinness,* who had made the trip, certified the results.

The crowd cheered. Seven marathons. Seven continents. One hundred and sixty-eight days.

The man on the balcony watched the grand celebration as Nishi crossed the finish line.

He watched Brady Ryan hug the old man and Holden Ryan offer an enthusiastic handshake. With Nishi finally finished, everyone headed towards the bar, while Holden and Brady retired to their stateroom to pack for the trip to the island—just as they said they would. *Just as he overheard them say they would.* The entire ship was distracted, just as the plan called for.

Everything was on schedule. Now was the time to act.

He lowered the scope and placed it in his pocket when a firm hand grabbed his shoulder, pulled his crackling arm behind his back and threw him against the cold steel side of the bridge.

Polmeroy wrestled the man against the side of the ship and examined his face. It was one of the ship's porters. The man was short and stout, with a dark, Eastern European complexion. Polmeroy did not recognize him from any of the photo disks he studied in preparation for the mission.

"Who the hell are you?" Polmeroy said. He forced the man harder against the wall.

The man's shoulder muscles stretched in a way they weren't meant to. The pain caused him to gag. Polmeroy loosened his grip, "Let me ask you again, ace. Who are you?"

The man offered nothing. Polmeroy reached down and felt the man's waistline, stopping on a cold, metal handle. He pulled out a gun. A silencer lengthened its barrel.

"Who are you with?" Polmeroy repeated. He slammed the man harder against the wall. Still the man did not answer. Instead he jerked his left arm free with incredible force and punched Polmeroy's sternum, the blow landing with an empty thud. Polmeroy fell forward and the man slid free.

Darting down a flight of stairs, he fled across an empty stretch of deck. Polmeroy hustled after him. Before he could descend the steps, he watched the man thrust himself over the side railing and into the icy waters.

Within seconds the man-over-board siren sounded.

No one on board knew quite what to make of the situation. Why would one of the porters throw himself overboard? Several of the deck mates scoured the area for the better part of an hour in a Zodiac, but the man never returned to the surface. The man had disappeared, drowned or frozen in the murky depths. The first mate—the lone witness—even began to doubt what he had seen. The mystery deepened when the senior porter reported none of his staff missing.

Polmeroy did not volunteer anything about the incident nor did anyone know of his involvement. That was how he wanted to keep it. He returned to his stateroom—first stopping by Holden and Brady's cabin to check on them. They were as shocked as everyone else, unaware that they were the man's targets. Holden had no idea how deep he had gotten himself in this thing.

Back in his stateroom, Polmeroy examined the man's pistol. It was a Czech made C275. That was the weapon type preferred by the Lithuanian special-ops force ARAS.

Polmeroy replayed in his mind the man's leap into the icy waters. ARAS operators were trained in cold-water survival techniques. Could ARAS be involved? It seemed unlikely. Lithuania was stable. What about some sort of rogue offshoot of ARAS? With the potential money involved, anything was possible.

At any rate, the man's objectives seemed clear enough. He was going to kidnap either Holden or Brady—or maybe both. That was going to be his entrée to the technology. That meant either a boat or helicopter must have been standing by to provide a means of escape from the ship. Perhaps the man somehow rendezvoused with his accomplices and made it away alive. Maybe not. Polmeroy didn't really care. It was obvious the operation was significant, though. No doubt it was planned well in advanced and coordinated.

Things were rapidly escalating.

The first mate helped Brady, dressed in thermal wear and dark sunglasses, down the stairwell and onto the Zodiac. The craft rocked as she sat. She watched Holden make his way down next, followed by Nishi and Polmeroy. The Zodiac was bound for shore. There they were set to rendezvous with a Hughes 500D helicopter dispatched from the North Sea German support vessel Schepelstrum.

The Zodiac put distance between it and the ship. Brady felt uneasy. Leaving the safety of the ship suddenly did not seem like a wise idea. She turned to Holden, but he was

deep into conversation with Polmeroy. The two were chatting about the mysterious porter.

Sensing her concern, Nishi smiled. “You do not appear to be enjoying your adventure, Mrs. Ryan,” he said.

She collected herself. “I am. I’m just tired.”

“A post-nuptial letdown, perhaps?” he said.

“A little bit. I’m just ready to go home, I think.”

“I learned after Aki’s passing that home was wherever she was.”

Brady smiled. She understood what he was trying to tell her. Ordinarily it took time to win Brady’s respect. Nishi had done it in record time. She felt like she could talk to him.

“Mr. Nishi, what do you think about the project?”

Nishi was surprised at the candor of the question. “It sounds interesting.”

“Do you think it’s a good idea?”

“That is not for me to judge.” Her look pressed him. She wasn’t interested in diplomacy. She wanted an answer. His voice struck a paternal note. “My father once told me that a bad idea could only survive if insulated from reality. I’ve found that to be very true.”

Brady thought about his words.

The Zodiac skipped along the choppy waters. Polmeroy tapped her on her shoulder and pointed towards the ship’s mast. “The captain of the Zodiac crew was apparently persuasive,” he said.

She smiled. Women’s underwear spanned the entire distance of the mast. Looking at the sky, which was clear except for some high clouds, she couldn’t help but think the old mariner’s tale was true. Good weather had followed.

# 3. ENTRY

From the air, Brady was surprised by the photogenic quality of ice. Large, rugged glaciers punctuated the coastline like sunken mountain peaks. She was awed by nature's most divine achievement, simplicity. It was no different than freezer ice, except for sheer volume and raw beauty. Pressing her camera to the copter's window, she snapped frame-after-frame of sparkling crystal mountains and a passing flock of giant petrel.

"Look there," said Holden, tapping his finger against the window. A mountain was visible in the distance. "That's Mt. Erebus on Ross Island. Stands just over twelve thousand feet."

His smile was broad and light. It was like that of a child who'd been deprived of his favorite toy, but was turned loose in FAO Schwartz. She would have liked to think the grin was somewhat less joyful than the one he sported weeks earlier when they exchanged wedding vows. She didn't want to kid herself, though. It was obvious what this meant to him. Not that he loved his work more than her, but…

As the helicopter traced the shoreline, the skies blackened. The horizon disappeared as if it was the end point of a gradation scale.

"Looks like there's some weather heading our way," said the pilot, a New Zealander. Polmeroy, Nishi and the Ryans wore helmets synced to the pilot's headset. The pilot added rather matter-of-factly, "Make sure you're in tight. It could get bumpy."

Brady pulled her safety belt snug. This is why the *National Geographic* had referred to Antarctica as "the windiest place on earth." Continental gusts reached speeds in excess of two hundred miles per hour. Gales were particularly rough along the coastal areas, where cold dense air flowed down off the icecaps. These regular and very strong winds were known as katabatic winds. Their speed and direction controlled by the shape of the icecap.

Passing over a deep gorge, the wind swept down, built force and slammed into the helicopter. It buffeted. Brady winced and removed the Nikkor 105mm telescopic lens from her camera. She packed both units in their respective cases and slid them under her seat. Clutching Holden's hand, she couldn't conceal her nerves.

"It'll be fine," he said, mustering a forced smile. No sooner had the words left his lips, then another, harder blast rocked them. This time Holden was the one wincing.

"Is your back okay?" she said, as he re-adjusted himself in his seat.

"This isn't helping."

Trying to keep her mind off the turbulence, Brady focused on the pilot's chatter with the ground.

"Yeah, Arctowski," he said, holding the mic closer to his lips so not to be misunderstood. "Latitude 062-degrees 10 south, longitude 058-degrees 28 west. No… I can get there… roger that… no boomerang… repeat, no boomerang." He turned sideways, towards Brady. "Looks to be a brutal front headed this way, this is just the leading

edge. Ground said it's a lot worse farther into King George you get. Was your ship in Maxwell Bay yesterday?"

"Yeah," said Polmeroy. He sat in the co-pilot's seat.

"This is that storm. Ground said it's rip roarin'. Ya might be stuck a while."

"What's a while?" said Brady.

"Hard to say, this is the first big storm of winter. Systems down here are mighty unpredictable. Sometimes they just settle in and rest their feet. Might be a few days, might be a fortnight."

Brady never liked helicopters, even though one of her clients was the largest helicopter manufacturer on the Eastern seaboard. The idea that a mere rotor was keeping them aloft wasn't reassuring. At least planes had jet engines behind them, and a pair of wings. It seemed to go against nature—not to mention Bernoulli's Principle of flight—that something without wings could stay aloft.

Flashing one of those reassuring smiles taught only in aviator school, the pilot said, "Don't worry ma'am, we'll get you there. Just typical Antarctic crud. You sure picked a remote part of the island, though. Nothing around for miles and miles."

"I didn't pick it," she said, putting her arm around Holden. "He did."

Ten minutes later the helicopter descended, lowering in spastic fits and jerks. Brady's stomach contracted with each spasm, her pre-flight bagel unable to find a resting place. Between the flight from the states, the ship ride and now the helicopter, she looked forward to having her feet on terra firma for a while.

"Sorry for the rough ride, these damn German romper stompers handle bloody awful," the pilot said, pulling his mic away from his mouth and looking at her.

Like seemingly all New Zealanders, he was ruggedly handsome. He looked a little like Holden, except with a bit more wear and tear. Holden's face still had a little baby fat to it, which she preferred.

With a thump, the copter touched down on the concrete landing pad. Brady's stomach finally relaxed. The conditions on the ground were far worse than in the air. A soupy mixture of fog and snow swallowed the chopper. Brady unlatched the door's safety handle and pushed it open. She was eager to get out of the contraption. A blast of bitter wind slashed at her, and she shielded her face from the mixture of snow and sleet.

Hunched below the whirling blades, the roar of the engine filled her ears. Holden reached around to shake the pilot's hand, a wad of cash exchanged in the process. The pilot's face was serious and he pulled Holden close. Brady leaned her head back in and listened.

"I'll be back to pick you up 1600 hours Auckland time Friday," the pilot said. "But once this front gets all the way in, if it settles, I can't get back until it clears."

Polmeroy cleared the helipad, and from the murky conditions a man bundled in a giant purple parka approached. He moved with a rumpled shuffle. "You Doc Ryan?" the stranger asked, his arms folded trying to keep warm.

"No," said Polmeroy, his duffel bag's strap slung across his chest like a bandolier. He examined the man, cloaked head to toe in purple. He was squatty with a broad

face. He looked like Ronald McDonald's little buddy Grimace. Polmeroy pointed to Holden who was helping Brady with her backpack. "That's your man right there, ace."

He nodded in appreciation and turned towards Holden. His hand was outstretched. "Doc Ryan. I'm Pig, your ride."

Holden glanced at Polmeroy. He studied the man in purple with a confused smile. "Your name, I didn't catch it?"

"Yeah, you did, Doc, it's Pig."

"Okay," said Holden with a shrug.

Pig pulled the group together. "Follow me, y'all, and we'll get you out of here. Careful, though, some of this snow is pretty choppy."

Visibility was next to nothing, and Pig guided the group to a red terra-bus sporting two monster truck-like tires in front and four in back. In white script on its side were the words "Ivan the Terra Bus." He helped each of the four up the steps that lowered automatically when the doors opened. Throwing their bags in the vehicle's underbelly, he hopped on. The bus was designed to seat twenty-four, but the group huddled together in the front two rows. They tried to keep warm.

"Picked a helluva day to drop by," Pig said.

"So we've been told," said Brady.

"This storm blew in maybe an hour ago," said Pig as he flipped a series of switches on the dashboard. "Another fifteen, twenty minutes and there ain't no way y'all's chopper could have landed. Luckily y'all had a Kiwi, they'll fly in anything."

"Quite a vehicle," said Polmeroy. Frigid tears welled in his eyes. He blew on his hands. The acts were futile; it was too damn cold.

The engines roared to life like a fleet of Sherman tanks. “The Poles bought Ivan here off the Americans a few years back,” said Pig. “He don’t handle too well, but he comes in handy.” With a mighty tug, Pig threw Ivan into gear and headed into the blinding snow.

Befitting his name, Pig sported an unkempt red beard and his hair was pulled into a greasy ponytail. A tattoo of some sort jutted from under his parka and wrapped around the back of his neck.

“Doc, happy to meet you,” he said, glancing at Holden. “I been workin’ as part of your team at Arctowski for about two months. I was over at McMurdo with a field research team this past summer, but the beakers—that’s what we call scientists down here—the beakers, they couldn’t take it and went home for the winter. I heard your team needed a new comtech, so here I am. It’s slammin’ down here.”

From across the aisle, Polmeroy watched Holden and Brady exchange smiles. At dinner the night before Holden had promised Brady they’d meet some characters once they made land. The non-scientific staff at these research stations—people who volunteered to spend long stretches in such isolated and deprived conditions—were people that were inherently odd. If Pig was characteristic of most of these staffers, then that assessment was dead on. He obviously marched to his own drummer.

“So, when not making airport runs, you handle communications… Pig?” said Holden.

“Yep, Pig was the first voice you heard yesterday when you rang Doc Glover. They got me doing all sorts of other shit, too. Only three Poles at the station for the winter, and your team is pretty small and pretty raw. I been in Antarctica for nearly three years now, so I got handles. You

or your wife or your posse here need anything next couple days, just find me, Pig'll hook y'up."

"Why do you call yourself The Pig?" asked Brady.

"Not The Pig, ma'am," he said. His head pivoted as he talked over his shoulder. "Just Pig. Fits, don't you think?"

The snowfall was thick as a wool blanket. The conditions were worsened by the swirling wind, which whipped up the snow already on the ground—blowing it into the air. It was less than a mile to Arctowski Station, but Polmeroy had no idea how they were going to make it. Even by Antarctic standards, this was a hell of a bad storm.

"How can you see where you're going?" he asked, squinting while trying in vain to see anything ahead.

"Got a path of steel barrels partially buried into the ground. Ivan here's got a sonar system in his belly that detects metal, and he just follows that all the way back to base."

As Polmeroy listened, his attention drifted toward Nishi. The old man's body was flaccid and his face was pale. His arms crossed his chest. He looked like the stone statue on a sarcophagus in a medieval European cathedral. The stress of the day had worn him out. Polmeroy pulled Nishi's coat snug around him.

"Are you okay?" Polmeroy asked. He didn't need any wild cards in the equation.

"Oh, yes, my friend," Nishi said. "It has been a very, very long day. I just need rest."

Polmeroy smiled and the old man shut his eyes. A moment later he began snoring.

It took nearly forty-five minutes for Ivan the Terra Bus to traverse the mile-long path and arrive in front of the

dormitory building, or "pod" as the buildings were known at Arctowski Station. As he helped each passenger off the bus, Pig said, "If the weather wasn't so sly, you'd see Jardine's Peak right there. Biggest hunk of rock on the island, a damn dormant volcano, and you can't even see it 'cause of the weather. Nice, huh?"

Looking up, Holden was surprised. Pig was right. Jardine's Peak was no small mountain—roughly the size of Washington state's Mount Rainier—yet it was invisible in the murky weather. He hadn't given too much credence to what the pilot had said about not being able to return until the storm moved on. Now it was beginning to sink in. They *might* be stuck here awhile. And that would pose a considerable problem since the Akademik Ioffe was their passage home. They had a narrow window to rendezvous with it before it headed back towards the tip of South America.

The group hurried into the warmth of the main entrance. The steel door slammed behind them and Holden realized just how isolated they were. Until the weather cleared this small station and its supplies was all there was to support human life for over a hundred miles. In a way, it was really no different than being on a space station. Life could simply not be sustained outside of its walls.

He felt a queasy feeling of claustrophobia. The corridor they'd entered was very narrow with low ceilings. The color scheme was lifeless and worn. It was very cold, both in a figurative and literal way.

Looking at Brady, he saw her arms hugging her torso. She bobbed up and down trying to stay warm. Her cheeks and nose were as red as a traffic light. He'd married quite the trooper. There weren't too many women who would put up with this on their honeymoon.

Waiting at the pod's entrance was a tall, lanky. Pig shook his hand and said something in Polish, the words pouring from Pig's mouth fluently. The man laughed at whatever Pig said and patted him on the cheek. Turning back towards the group, Pig said, "Nikki here needs y'alls passports."

Holden was impressed by Pig's bilingual skills; Polish wasn't an easy language to pick up. He looked at Brady, who reached into her coat and handed him his passport. She always kept strict tabs on their documentation, knowing such details were sometimes out of his reach. Nikki examined the passports and stamped them.

"Part of the purpose of these here stations is to set up sovereignty claims in the region," explained Pig. "Stampin' passports and mail helps those claims. So, your passport gets a Polish stamp, even though we're about ten thousand miles from Warsaw."

Nikki returned the passports, along with an embroidered "Arctowski Station '09-10" patch. He smiled at the visitors and wished them good evening. Looking back at Pig, he muttered something in Polish. His face curled as he did so. They both laughed and glanced in Brady's direction.

Brady was tall, about five-feet nine, with dance-class posture and an athletic frame. She was a great looking woman, but didn't carry herself like she knew she was. Holden knew in advance that she'd be an instant smash with the staff. It was obvious she already was.

"Why do I get the feeling they're not used to women down here," whispered Brady to her husband.

"They're used to women," said Holden. "Just not women with curves."

Pig led the group ahead. The heavy clopping of their shoes against the grotty tile floor echoed down the otherwise silent hallway. Pulling close to Brady like a floppy puppy, Pig said, "Hang on to those patches, ma'am." He pointed to the patches Nikki had given her. "They got value down here. Folks at the other stations will swap patches or sometimes other shit to get `em. Kind of like baseball cards."

She glanced at Holden, who was amused by the scene. Pig continued to make small talk with her while they walked.

As he led them around a series of corners, past a number of closed doors and through an open area with a small television, Holden's nose began to burn. The pod had a musty odor. It smelled like a stuffy room filled with yellowing library books. Holden was reminded of the smell in the far recesses of the medical research library at Johns Hopkins. That was where the comparison between the two ended, though. The library at Hopkins was always bristling with life. Everything here was silent. It was still early evening, yet no one was around. He felt like it was 3 a.m.

"Folks get up early, and hit the sack early," Pig explained. "There's not a whole lot to do. When folks aren't workin' or eatin', they read, write letters home or sleep."

Coming upon a fork that splintered between two corridors, Pig said, "So, I'll take you to your quarters and you can drop your stuff. Then if you'd like to get something to eat we can get some grub. The food here ain't too sick considering we had tacos tonight cooked by a Polack in Antarctica. I know Doc Glover is going to want to rap with you, Doc, but after, if y'all like, a few of us are

goin' to be chillin' in the lounge, watching the Super Bowl and maybe knock back a few cocktails."

"Super Bowl was six weeks ago," said Holden.

"Yeah, but we just got the tape yesterday—had to buy it for fiddy-dollars from a broker at the Czech base. Hope the Steelers do it, P-burgh's my hometown."

"Anyone taking action?" asked Holden. "I'd sure like to get a bet down."

"I'm worried about Mr. Nishi, will you check on him, Holden?" said Brady, unpacking the couple's bag. The dormitory room was small and Spartan. A bed. A bathroom. A television. That was about it. Like the pod's corridors, the room's ceiling was low and everything seemed a bit too crammed. It was as if it was built to eighty-percent scale. There wasn't even a window. There were no windows in the entire pod. With the exception of the faux wood paneling adorning the walls—which gave it the feel of a 1970s basement game room—it was even more bare bones than their cabin on the Akademik Ioffe. The accommodations were moving in the wrong direction.

"Let Mr. Nishi get settled, and I'll stop by," Holden said, standing in front of the mirror.

Brady watched him apply a tiny bit of Tea Tree styling gel to his chestnut hair, which was tapered along the neckline and long and layered on top. She shook her head. She had never seen a straight man as well groomed as Holden.

"I think Nishi's just overextended a bit," he continued. "He probably shouldn't have come, not in his condition. When you're around him, though, you forget these things; he's so full of vigor."

"Dammitt," said Brady, pushing her hair back over her ear and picking at something on top of the bed.

Holden turned. "What's wrong?"

"My necklace snapped," she said. The cross' broken chain stood out against the blue wool blanket. She cupped it in her hand and examined it. This was the second time in three days.

"Why don't you let me buy you a new necklace; maybe a diamond," Holden said. "Let's retire that old thing." She'd learned to read him like a book. He was exasperated.

"Holden, you know my father gave this to me."

"I know. I just thought…"

"You think it's cheesy-looking, don't you?"

She knew it was a loaded question. Watching him squirm was amusing. He didn't say a word.

"Well it is a bit of an eyesore, but I don't care," she said. "This thing is worth more to me than the Hope Diamond, and if that doesn't impress people—too bad."

"Let me look," said Holden, taking the necklace and pulling it close to his eyes. "Busted one of the loops. Let me take it. I'll see if your boyfriend, Pig, has some small pliers. I might be able to fix it."

Brady reached for it. "Don't hurt it."

"Braid… I'm a surgeon. I'll be careful."

She started to say something else, when she was interrupted by a knock on the door. She opened it. A tall, blond man with wire-rimmed glasses and a long, hooked nose stood in the threshold. She smiled, but before she could say anything, he looked around her. It was if she wasn't even there. He focused on Holden.

"Dr. Ryan?" the man asked with a clipped, sub-zero delivery.

"Yes," said Holden.

He offered a forced smile and pushed his way past Brady. "Stephen DeNardo."

Holden was stunned. "Brady," he said, his right hand pulled her close. "This is Mr. DeNardo, with EOC Laboratories." She extended her hand, still irritated at his rudeness. He shook it, not bothering to make eye contact with her. She bristled.

So this was the famous—or rather infamous—Stephen DeNardo. She'd heard more than her share of horror stories about him. Of the several anonymous donors to the project, Palo Alto-based EOC Laboratories was by far the largest and most important. Between research and development of the nanomachines, the leasing of Arctowski Station from the Polish government, staffing of the project and the build-out of a twenty-five thousand square-foot class-1000 clean room facility at Arctowski, EOC Labs had already invested well into nine-figures worth of funds and services in exchange for future patent rights to what they believed would define twenty-first century technology.

Holden had never met DeNardo in person. He had only spoken with him during two infamously brutal conference calls with EOC brass while negotiating the partnership. He'd come to know him all too well through some stinging memos and nasty e-mails criticizing his management and perceived lax timetable in fast-tracking the project the way EOC and DeNardo had demanded. The adjective she recalled Holden using most to describe him was "bastard," although "asshole" was a close runner-up.

DeNardo was not a scientist, and so he did not understand the care needed to mount an intricate scientific research operation and attract the best talent. He was more of a special envoy, for lack of a better description, for the

company's board of directors. His unique skills were in solving problems and fixing, sometimes quite uncomfortably, situations that needed fixing. Since, to Brady's knowledge, that did not describe the project, she was surprised and a bit confused about why DeNardo was here. Judging by the look on Holden's face, he wondered not only why DeNardo was here, but why no one had apprised him of this turn of events.

"Your journey's been well?" said DeNardo, eyes darting around the room.

"Yes, everything's been good. Very, very good," Holden said.

"Good. I understand you brought two guests with you?"

"Yes, two gentleman we befriended on the ship; thought they'd be fascinated to see the work we're doing."

"One's a journalist?" DeNardo's eyebrows arched. Brady already thought the man rather ugly. This confirmed it.

Holden's smile faded. He was being put on the defensive. "Yes, a freelance writer. Bindu Polmeroy."

"Bindu Polmeroy… odd name," said DeNardo, nodding. He took off his glasses and rubbed his eyes. "The air is so dry down here, you never do get used to it; especially in a place like this," he said, looking at the floor. "It can get particularly unpleasant in here if you think about it too much; a lot of people; a lot of pressure; little space. Recycled air, very—what's the description I want?—very heavy air. It unnerves people; puts them on edge. We try not to put each other on edge down here. We act like a team, that's how we survive; how we thrive in such a remote place."

With care that bordered on theatrics, he put his glasses back on. “Dr. Ryan, you shouldn’t have brought those two men here. This is a research assignment, not a tourist attraction. We’re not running the Pirates of the Caribbean. I trust in the future you’ll clear your whims with me first before proceeding.”

“I didn’t realize you had final authority when it comes to this project,” Holden said, angered.

Good. She did not want him to let this guy take him to the shed.

“Well, I am final authority here,” DeNardo said. “At least as long as my company continues to pour tens of millions of dollars into your research. I would have thought you’d have realized that by now, doctor.”

Holden said nothing, which disappointed Brady. She knew an asshole when she saw one. DeNardo fit the bill. She wanted to say something, but bit her tongue. It wasn’t her place. It wasn’t her fight.

DeNardo smiled and said, “I realize you’re tired, so I won’t keep you, Dr. Ryan, Mrs. Ryan. Good night and try to get some rest. You’ll get your first look at the project in the morning. I’m anxious to hear your thoughts on the progress made.”

Polmeroy threw his bag on the bed, and flipped on the television. Two channels, both fuzzy, were all he could find. He flipped back-and-forth between Chile’s two leading stations: Television Nacional and Universidad Catolica Television. He settled on the latter and recognized the movie showing. It was *2001: A Space Odyssey*, dubbed in Spanish. Polmeroy, fluent in the language, watched for a moment before flopping on the edge of the bed. He grabbed

his duffel bag. Laying it on his lap, he unzipped it and sifted through the mass of t-shirts and socks.

He pulled out a small device resembling a Geiger counter. Flipping it on, he canvassed the room, waiving it along the baseboard, up the doorframe, around the small wooden desk, over the television set and across the satin chrome finish of the bed frame. When he passed it over the lamp by the bed, the machine detected something.

The gauge read 2.5 GHz. Putting his hand up inside the light shade, he felt around until… *bingo*.

"Hello there," he said. The small, round metal facing was inorganic to the lamp's design. He pulled his hand from under the shade and left the device where he found it, connected to the lampshade.

It was all just as he expected.

Switching on his Tablet PC, Polmeroy initiated the speech recognition protocol. The computer's response was placed to mute. On the screen appeared the text: "Speech recognition cleared. You may begin, Mr. Polmeroy."

He took the digital pen and accessed the on screen input panel. He retrieved the e-mail template and entered "Clearance FN90, Delta, Alpha, One." Tiernan's access code appeared in the address line.

It was four hours until the satellite was out of communications horizon for the day. He was on the early side of the arc for once—the folks in "the bunker" would be impressed. He typed the following: *Am on the ground at Sub-Zero X. The weather will limit topside approach. Still have not received backup team contingencies. Please advise, ASAP. I do not know how quickly things will fall in place.*

He described in detail the encounter with the operative aboard the Akademik Ioffe and the man's escape/death.

Opening up a wallet-sized particle-sensitive clip, he pulled out an imprint of a fingerprint he'd scanned from the Czech pistol. He had already checked the print against the library of "usuals" stored in his hard drive. There were no matches.

He slid the print, captured on an acid fingerprint swatch, into the side scanner. A perfect digital reproduction attached itself to the e-mail. He hit send. The progression of the transmission began on screen. Thirty-percent. Fifty-Percent. Seventy-Percent. Then abruptly: "Transmission Cancelled."

Polmeroy tried again. The results were the same. He typed, "What is the problem with transmission?"

After a second, the unit replied: "Atmospheric conditions prohibit access to satellite J-12. Transmission will not be possible until improvements in atmospheric conditions. Would you like today's headlines and the weather reports for your book marked cities?"

"Great," Polmeroy muttered. He was on his own for a while.

"So we can't get a look at the project until morning?" asked Holden, sitting on the edge of his bed. He rolled a glass of vodka in his hand.

Brady, Polmeroy, and Nishi had gone to the refectory for dinner, allowing Holden his first chance to speak with Dr. Julian Glover. The imminent Oxford scholar sat legs-crossed and relaxed on the small wooden chair across from Holden. Her wore a white fleece zip-up and slightly rumpled corduroy trousers. His graying hair was cropped and he had the beginnings of what could be in time a goatee sprouting from his chin. He was no longer the dashing forty-something British playboy Holden knew ten years

ago. Glover's marriage had made him more complete—happier, more focused—but it'd also made him more domesticated. Is this what Holden had to look forward to from his own marriage?

Glover sat with a half-full bottle of homemade vodka between his legs, a glass in his hand. A CD of Holden's favorite Rachmaninoff piano concertos played softly on the Bose wave radio in the background.

"We can't get you back to the laboratory until morning, Holden," Glover said. "You have to understand how this station works. The pods are like hubs, connected by underground tubes. They work off the same power and heating grids. This facility is primarily powered by wind turbines, which while efficient and clean, do not offer the same endless supplies of say, CON-Edison. At night we power down certain sectors to conserve energy, especially during this brass-monkey weather. The pod where the lab is set up is powered down every night and completely sealed as a security precaution. EOC folks are big on security. That's why DeNardo is so bloody perturbed about your mates, Polmeroy and Nishi. They're terrified of corporate espionage. I think they love the remoteness of this place for that very reason. I'm not so sure EOC wouldn't like to move its entire corporation from San Francisco to here."

"Real estate would certainly be cheaper; relocation allowances will be a bitch, though," Holden said. He paused. "So how pissed is DeNardo?"

"Pretty bloody pissed. It's really got his wick, especially you bringing a journalist. What were you thinking, mate? Do you think we are ready for that type of scrutiny?"

"A little publicity might do us good. I'm afraid we're going to do all the work over the next few years and then

EOC is going to lay claim to everything; leave us historical footnotes. A little press now—for you, me and our team—might not be the worst move in the long run."

"You sure this fellow is going to write something positive?"

"Right now he's not planning to write anything. My hope is that after he sees our work, he'll beg his editor for space to talk about how a small team of doctors and scientists in Antartica are changing the world." Holden took a sip of the vodka. His face curled—he had a sudden recollection of an incident freshman year of college in the dorms. That night ended with a stomach pump. "Where did you get this stuff?"

"From the Russians on the far side of the island. I think they make it somehow, out of what I'm not sure, maybe seal excrement. Like a lot of things born of desperation, it's an acquired taste."

Holden stared at the glass, then looked his friend in the eye, "I just don't understand why DeNardo is here. Why send a corporate guy, a goddamn lawyer? This is a science project."

"Not to them. You're going to find that out straight away. They're a corporation. A corporation whose stock is down significantly over the last eighteen months and has made a rather daring investment in this project, in us. DeNardo has been here about six weeks, and is going to stay at least another six. He's an arse-hole, but we're going to have to live with him and his little minions. Remember how EOC was going to send two physicists to deal with the integration of the nanomachines? They sent six instead. It's almost like there are two separate teams here, our team of chemists and biomedics and their molecular physicists.

EOC wants to make sure everything is progressing and that we remain on schedule."

"And are we?" Holden said. His eyes burned. He hadn't slept much the previous few nights and it was catching up to him.

"Holden, we are at least twelve to eighteen months ahead of where I'd hoped we be at this point, and progress is accelerating daily. As you'll see we still have some rather profound and vexing problems to clear. We are nowhere near being able to take this technology to market. But nevertheless, you are not going to believe what you see tomorrow. It's everything I told you in your last briefing and more. We're no longer dealing with theories, Holden. Nanomachines are a bloody reality."

# 4. INCUBATION

After a quick breakfast of eggs, bacon, toast and some genuine Australian vegemite, Glover led Polmeroy, Nishi and the Ryans to the station's control room, just around the corner from the refectory. There he arranged for each to receive a photo VisiBadge. The control room—"a poor bloke's mission control," quipped Glover—housed the computer systems and monitoring equipment from which the entire station was run. In the case of emergency, it was the nerve center from where the station's primary life support systems, including heating and oxygen flow, could be managed.

The group posed for digital passport-sized headshots that were printed onto encoded laminated passes. Holden received an A.A. (all-access), allowing him entry to all points of the station. The other three received lesser access, D.V. (distinguished visitor), allowing entry into secure areas only when accompanied by someone with appropriate clearance.

"Seems like a lot of protocol," said Brady, looking at her pass, a bit surprised by the formality of the procedure.

"What did you expect from a billion dollar project?" said Holden. "Besides, you haven't seen anything yet."

First step completed, Glover led them down the hall. They glimpsed for the first time the elaborate system of tunnels built a decade earlier to connect the station's pods.

The dormitory pod's northern edge expanded into a rotunda. The ceilings lifted and the halls widened. It was a liberating feeling. The oppressive claustrophobia of the pod's original section lifted. The construction in this area was much newer than the rest of the structure, and the reddish-brown color of the walls felt much warmer.

"This must be where the spa and health club is, right?" Brady said.

"Even better," replied Holden.

The rotunda served as the hub for the entire complex; an embarkation point, from which the four marked tunnels shot off through the campus with Byzantine complexity.

Tunnel 1 led to the physical plant, where wind turbines, solar dishes and electric generators provided the station energy. Tunnel 2—the "mix-master," as the station's inhabitants called it—split into a series of mini-tunnels emptying into pods designed for a range of scientific research, from geology to paleontology. Tunnel 3 led to the station's famed biosphere. Tunnel 4 was the artery leading to the largest pod, an imposing gray, cinder block building housing the project.

"As a failsafe measure to ensure the maintenance of the life-sustaining systems in the dormitory pod in event of catastrophic occurrence, each tunnel is equipped with an emergency door," said Glover, as if reading from a script. "By simply punching the red buttons located next to each tunnel entry, airtight, one-foot thick steel doors powered by non-electrical hydraulic systems will immediately seal the areas."

"Have you ever used them?" asked Polmeroy.

"No, and it is our profound hope we never have to."

Tunnel 4 was the only one guarded. Brady smiled upon seeing Nikki standing sentry. He sheepishly returned the smile, blushing slightly. She was starting to like this extra attention—it made her feel like a movie star on a USO tour. Nikki glanced at the group's passes, and asked them to run their I.D.s through a scanner. Brady leaned over and swiped her pass, which hung from her neck by a lanyard. A light on the panel glowed green.

From there the group moved into a frigid, simply-lit tunnel that stretched less than a hundred yards under the topsoil of the island. As they descended, Brady felt like Alice dropping through the rabbit hole. The scope of the project was rapidly becoming apparent.

"This is some set-up," Brady said to Holden.

"It wasn't cheap."

"Is all this security really necessary? We are in Antarctica—who's going to swing by uninvited?"

"Trust me, it's necessary."

When they emerged, they stepped through a series of pressurized doorways and into a very sterile antechamber. It was difficult for Brady to believe that they were in the same complex as the tattered dormitory pod. It was like stepping from Abe Lincoln's log cabin onto the MIR space station.

"Is this it?" she whispered.

"This is the antechamber," Holden said. "This is where they neutralize whatever bacteria we're carrying on our skin and clothes."

"What are we doing, conducting surgery?"

"We'll be able to if we want."

The antechamber was overwhelmingly white, from the thick epoxy paint on the walls to the fluorescent ceiling light that filtered from a non-yellowing textured lens.

Holden pointed to the lights on the ceiling. "The U.V. rays help destroy the genetic material of any stray viruses we may be carrying."

"Don't look at me. I showered this morning," she said.

She felt uncomfortable. She'd never visited a clean room before, and she was surprised by how ominous it felt. It was depersonalizing, and with good reason. The entire environment had been painstakingly constructed to separate humans from whatever agents they were working with. Mixing the two, the set-up not so subtly implied, would be very bad. How bad? Brady didn't intend to find out.

Glover opened a large cabinet that divided the chamber in half like a locker room. He thumbed through the rack of garments. A blower washed the protective clothing with class 1000-air.

"Put these on," Glover said, handing each a white, one-piece coverall made of anti-static material designed to cover the torso, legs and feet like a child's pajamas. He also distributed static dissipative gloves and pleated facemasks. "We'll be entering a class-1000 clean room laboratory environment," he said. "That means there are no more than a thousand particles larger than 0.5 microns in any given foot of air. No need to put the masks on, but keep them with you in case needed."

Each member of the group did as he said. When they were done, they looked like a pack of oversized rabbits. Brady looked at her husband and laughed. "Jesus, I wish I had my camera right now."

"Why?"

"Because you look ridiculous."

"And you don't?"

"I know I do. The difference is I know how much it must bother you, Mr. Christian Dior. That's funny."

Once everyone was ready, Glover guided the group through a heavy-duty door made of quarter-inch clear acrylic and into an elongated air-shower tunnel. Four side-by-side banks of eight inch-long nozzles washed any surface lint and dust from their garments. A sticky mat performed the same function to the soles of their shoes. Brady felt like a car in a carwash. It hit her. The point of all this wasn't so much to protect her from whatever was in the laboratory. It was to protect whatever was in the laboratory from her. EOC hadn't spent tens of millions of dollars to safeguard staff and visitors. They were safeguarding the specimens.

Upon exiting the air shower, they were greeted by a middle-aged woman of Indian descent. Brady smiled. It was nice to see another familiar face. The woman was tinier than Brady recalled. She had always been electric-wire skinny—but if possible, it looked as if she'd lost even more weight in recent months. She didn't look healthy. But then again, it wasn't unusual for Holden to shed a few pounds when he was immersed in a project. Food and sustenance was sometimes an after thought to these people.

"Hello, Fiona," Glover said.

"Good morning, all," she countered, her Mumbai accent rising and falling gently. The sight of Holden and Brady brought a smile to her delicate features. "Holden, it is so good to see you, my friend…" Her brown eyes turned to Brady. "…And Brady, it's lovely to see you as well." She hugged the new Mrs. Ryan. "I'm so terribly sorry I missed the wedding. Perhaps later, when we have time, you can tell me all about it."

Holden turned the woman towards Polmeroy and Nishi. “Mr. Ichiro Nishi and Mr. Bindu Polmeroy, allow me to introduce you to Mrs. Fiona Kotuko-Sinclair, associate professor in the department of chemical engineering at the University of Denmark and our project’s team leader. Fiona spent a year flying across the Atlantic twice a month to EOC Labs aiding in the development of the computer models and eventual prototypes of the nanomachines we’ve developed. She then spent a year organizing and designing the laboratory environment you are about to see. For the last eight months she’s pushed the research along. Of the many advances we’ve already made, I’d say pitiful few would’ve been possible without Fiona.”

“Arduous,” said Nishi. “When do you share time with your husband?”

Kotuko-Sinclair smiled. “Fine question. Julian, when do we share time?”

Polmeroy and Nishi could not conceal their surprise. Holden had neglected to tell them that Glover and Kotuko-Sinclair were husband and wife. Typical. That was just the type of detail that would elude Holden.

“I would classify our union as one of total immersion,” said Glover. “We recently celebrated our fifth wedding anniversary down here. For two lovers of science it couldn’t have been more perfect.”

“It couldn’t have been more perfect—unless there was a seventy-degree positive variation in climate,” said Kotuko-Sinclair.

Brady smiled, but her husband did not. Though Holden considered Julian Glover a close friend, Brady knew he did not share the same enthusiasm for Fiona. While there was no disputing her incredible talents as a scientist, Holden found her professional intensity and single-mindedness

obsessive. An amusing complaint coming from Holden. He once told Brady, who had a much warmer relationship with her, that if you took away equations and hypothesizes she'd have no personality at all. "She's not a woman, she's a Pentium processor." Brady often wondered if what really bothered Holden was the distinct possibility that Fiona was smarter than he was. It was a hypothesis she had never dared float out to him—it'd hurt his feelings too badly.

Smiling, Glover said, "At this point, I will act only as a fly would on a wall. My wife has been our most formidable warrior, so I will turn to her to bring you up to date on where we stand and to receive whatever accolades you wish to extend. She is certainly deserving of any and all." He stepped aside.

"Holden, how much have you explained?" Kotuko-Sinclair asked.

"Nothing too specific."

"Well, let's take a walk towards Lab A, and I'll try to summarize without being too redundant. If you've heard something before, let me know and I'll skip ahead."

The group walked down the hallway as Kotuko-Sinclair reiterated Holden's beliefs in an eventual molecular revolution. "Basically the first half of the twentieth century was marked by the invention of the vacuum tube," she said. "This is what allowed radio, television and room-size computers. The second half of the century belonged to the transistor, which gave way to integrated circuits and computer microchips. This drove dramatic advancements in computer electronics. The first fifty years of this century will see the birth of a new paradigm, a third wave in electronics. In this period we will see computers with unprecedented processing power,

literally a million times more powerful than the machines of just a decade ago, and a revolution in nanotechnology."

They turned the corner and entered Laboratory A. Technicians huddled over microscopes and computers. Three-dimensional kinetic images of proteins rotated on the computers' MageJava software.

"Team," she said. The young scientists, none past their mid-thirties, ceased their activities. "Allow me to introduce the famous Dr. Holden Ryan." There was a buzz.

"Dr. Ryan, our team. Starting on your left, Demry Sanderson, assistant professor of Chemistry at Purdue University; Rodney Jurgensen, assistant professor of Chemistry and Biological Science at the University of Texas; Derrick Smith, professor of Biomedical Engineering and Orthopedic Surgery, Duke University; and Nolan Fine, professor of applied physics and applied math, DePauw University." One by one they took turns greeting the man responsible for their toil. "I believe the group has a small welcome planned for you, Dr. Ryan."

"Dr. Ryan," said Jurgensen. "If you'd step over here."

Brady smiled and pushed her husband forward. Jurgensen led Holden to the far end of the room, towards a large microscope, which looked more like a drill press than an instrument of science. The microscope, technically known as an Atomic Force microscope, used a sharp metal tip to image and manipulate atoms. Holden took a seat on the vinyl, upholstered swivel chair in front of the device. Everyone else gathered behind him. He looked through the scope's eyepiece, his surprise obvious. A grin swept over his face.

"Braid, look at this, you have to see this," he said.

Brady stepped forward and peered in. Spelled out in what looked like tiny crumbs were the words, “Thank you, Dr. Ryan.”

“The ability to switch atoms was a major breakthrough,” said Kotuko-Sinclair. The message to Holden, she explained, was spelled out in an alternating pattern of hydrogen atoms and silicon atoms. The young team of scientists returned to work, and Kotuko-Sinclair sat with the group at a small table in the back of the room. While Holden was blown away by what he had seen in the microscope, Brady was still trying to figure out the message’s significance.

“Until we discovered how to switch atoms in this manner, atom manipulation had mainly been limited to exotic atoms or molecules on metal surfaces frozen to temperatures of near absolute zero; about —273-degrees Celsius. Our little atom-knitting that you just observed was done on a silicon surface at room temperature. It may not seem like a lot to most, but this technique is the basis of our ability to build single-atom computer devices, which is what drives nanomachines.

“Once we possessed this knowledge we were able to build atomic-sized computers rather quickly. That left only one more significant hurdle, the development of a nanoassembler. That’s always been considered the Holy Grail of nanotechnology, and many thought us twenty-five to fifty years from such a breakthrough. But once we had perfected the nanocomputer, the nanoassembler became possible, and possible in due course.”

“What’s a nanoassembler?” asked Nishi. Brady was readied to ask the same thing.

"A device constructed at the atomic level, which arranges atoms precisely into most any desired form," said Holden, a bit hastily, as if surprised Nishi didn't already know this.

Brady had seen this side of her husband before. He'd get so wrapped up in discussing the potential technology of a procedure that it would irritate him if others weren't following along. It was a typical trait of surgeons, she'd come to understand.

Kotuko-Sinclair continued. "Before nanoassemblers, working at the atomic level required bulky machines like the Atomic Force microscope. But a nanoassembler simply plucks atoms from a bin and like a microscopic post-industrial loom, knits them into position."

"And you've been successful in building a nanoassembler?" asked Brady. Holden stared at her as if to ask, *how do you not know that?* She could tell he was embarrassed. It reflected poorly on him that his wife was this much in the dark. She was happy to at last get to the bottom of some of this.

"A nanoassembler is what knitted together Holden's little message over there," Kotuko-Sinclair said. She paused and eyed the group like they were first year students. Brady sensed she realized how overwhelmed by techno-speak they were becoming. "Enough of the science for the moment," she said. "Now that you understand some of the hurdles we've overcome, let me introduce you to the exciting stuff."

She led the group out of the laboratory, past another more advanced clean room environment and to the threshold of Laboratory B. Brady watched as Kotuko-Sinclair entered a five-digit, personalized combination into the digital accessed security door. The code registered not

only her identity, but also her safety training and immunization status. Once cleared, the lock clicked and the group entered. A white mica laminated tabletop sat pushed against the far wall. On top of it, a Dell desktop computer from which a cable ran into a three-foot high isolation glove box. Behind the glove box's clear plastic front, within the class-1 particle free environment, was a simple blue cube. The computer's cable was hooked into the cube.

"Take a look at this cube," she said. Earlier, Brady overheard Holden tell Kotuko-Sinclair to "wow" Polmeroy. It was vital he be "blown away." Kotuko-Sinclair's eyes closed in on him now. "Mr. Polmeroy, please examine the cube closely and describe it to the others."

Polmeroy stuck his hands into the glove box's accordion sleeves and stretched his long, narrow fingers into the connecting gloves. He picked up the cube, and tapped it with his fist, careful not to knock free the connecting cables. "Weighs maybe one, two pounds. Three inches across, I guess. Three inches high. Hard. Feels like… wood?"

"Maple to be exact," she said. "Okay, step away, Mr. Polmeroy." She used the computer's mouse to bring up a program that looked like a checklist on the screen. She clicked three boxes followed by enter. With no flash of light and no magical mist, the blue cube quietly and efficiently morphed before their eyes. When the transformation was complete, the cube had been molecularly restructured into a red ball the size of a basketball. The group was still, except for Glover. He looked at his wife and exchanged a smile. "Mr. Polmeroy," Kotuko-Sinclair said. "Please step back up and describe what's in the glove box."

Polmeroy put his hands back in and pushed at the ball. "It is soft and spongy, with almost no weight. It's a big Nerf ball," he said with befuddled laughter and awe.

"You have just witnessed the nanomachine revolution," she said. "With a simple entry into a run-of-the-mill Pentium VIII processor, a message was sent into the computer of the nanoassembler and because of the assembler's ability to replicate molecules, it simply reconfigured the molecular structure of the cube into this ball."

"Can you make it take any shape?" asked Brady.

"Not yet," said Kotuko-Sinclair. "Right now all it can do is morph between the cube and the ball, a one hundred million dollar oddity. But given time we'll be able to build much more complex programs. Say for example, Brady, you and Holden decide to furnish your living room with very traditional cherry wood furniture. But you also like a more rustic country feel. Well, if the furniture is constructed using nanomachines, a few keystrokes into your P.C., and you can transform the cherry wood furniture into country furniture. Or maybe one weekend you'd like an Asian feel? No problem. Enter the program into your P.C. and the country furniture is now an exact replica of a design from the Ming Dynasty. You can redo the interior design of your home on a whim whenever and how often you feel for the cost of a computer program."

"Leave it to a woman to reduce a breakthrough of this magnitude to a device for home decoration," Glover quipped.

Kotuko-Sinclair pretended to slug her husband in the stomach. "Okay, let's put it in perspective for the males of our species. With one nanomachine and a couple of sacks

of potatoes, one day you'll be able to construct a new stadium for Man United."

Brady was amazed. She watched as each member of the group took turns feeling the ball and urging Kotuko-Sinclair to morph the ball to the cube and the cube to the ball. Each time she did, the group gasped and watched for some sort of sleight of hand, as if it was an act of magic. Brady had heard all the talk from Holden about the amazing significance of his work. While many thought his enthusiasm pure hyperbole, she believed him. But like a good Margarita, while his vision was intoxicating, she assumed it needed to be taken with at least a grain of salt. Watching the cube morph, she realized, her husband really had helped to create something that would forever change the world. She no longer felt uncomfortable.

She felt scared.

After several minutes of watching the cube change back and forth, Polmeroy said, "While truly amazing, let me take the contrary approach, since that's an area in which I excel. With this amazing technology, also come amazing responsibilities. Let's put aside for the moment the enormous economic ramifications of what you suggest—I mean tough luck for the furniture industry, wouldn't you say? What precautions are being taken by your team to safeguard against the threat of global ecophagy?"

"Global what?" asked Brady.

"Global ecophagy; a syndrome characterized by the rampant destruction of an ecosystem by a biological or nonbiological agent," said Holden, staring at Polmeroy.

Brady could tell he was irritated and more than a little hurt. He'd wanted to—*hell, he fully expected to*—blow Polmeroy away; to make the journalist, the skeptic, inside him cower before this amazing breakthrough. That hadn't

happened. She could see the first seeds of doubt arising in her husband. He was coming around to what everyone else had been thinking: he shouldn't have been so impetuous in inviting Polmeroy and Nishi.

"What Mr. Polmeroy is referring to—this idea of global ecophagy—is more commonly known as the Gray Goo Syndrome," said Kotuko-Sinclair.

"Gray goo?" Brady said.

"A disaster scenario—an Armageddon scenario, really—first suggested by the father of nanotechnology, Dr. Eric Drexler, in his 1980s manifesto, *Engines of Creation*. Drexler put forth the notion that if either intentionally or through accident, a single nanoassembler with self replicating abilities were released into the environment, with only its basic program functions to rely on, it would replicate uncontrollably. The assemblers would, in a sense, devour plants, animals, even rocks, anything with a molecular structure, until the entire planet is reduced to a gray goo of nanites. The entire earth's crust would collapse on itself, breaking apart like an overcooked pan of cookies."

"There wouldn't be any actual gray goo, per se," interjected Glover. "It's simply a metaphor Drexler devised for life being wiped out by something less inspiring than say, crab grass."

"Is this a real threat?" asked Brady.

"Theoretically," said Kotuko-Sinclair. "However, while all assemblers by their very construction have the ability to self replicate—thus allowing one assembler to multiply into however many are needed to accomplish a task in a timely manner—we've engineered our nanobots to avoid unwanted replication. We've created a synthetic vitamin, which we've termed Tactrin. The nanobots we've

created need Tactrin to self-replicate. If we don't supply it, they won't replicate. Since Tactrin is not natural, the threat of this syndrome, at least stemming from our research, is nonexistent. Does this alleviate your fears, Mr. Polmeroy?"

"Truthfully, no. Once this technology is developed and is available, you assume everyone will use it as responsibly as you are proposing. What of those who might wish to weaponize this type of technology?"

"Why would someone do that?" said Holden, shaking his head.

"Why wouldn't they?" said Polmeroy. "Don't forget the world we live in. There are a lot of people who'd see more value in a weapon of mass destruction than a new living room set on demand. People have a great hunger for the bad stuff, Holden, and money has an unbelievable way of making others find ways to feed that hunger—no matter how shortsighted and ultimately self-destructive it may be. Always beware of the bad stuff and the bad guys, 'cause they are out there and sometimes a lot closer than we think."

Brady sensed her husband's blood pressure rise; veins spiderwebbing across his neck and forehead. He rolled his eyes, and began to counter. Kotuko-Sinclair cut him short. "You have picked out the darkest possible scenario of our research, Mr. Polmeroy," she said. "Let me show you the lighter side of the spectrum; the potential for greater good."

She led the group through a door at the back of the lab. It emptied into a room set-up like a kennel. An orange cat sat in a cage. The animal looked like a beach ball with fur.

"Meet Tubby," she said. "Tubby is so named, because as you can see, he has a bit of a weight problem. He's eighteen years old. Last year he was diagnosed with feline leukemia. Six weeks ago he was thought near death—there

was even talk among some of the beakers that the only humane course of action was to go ahead and put Tubby to sleep. He's perfectly healthy now, though, wouldn't you say?"

The cat did look healthy and playful. He rolled over on his back in hopes of enticing someone to rub his stomach.

Kotuko-Sinclair continued: "We injected Tubby with a prototype of our biomedical nanomachine. If you happened to see the movie *Fantastic Voyage*, what we did was very similar. The nanomachine was injected directly into his bloodstream, acting like a tiny search-and-destroy submarine in Tubby's system, seeking out the cancer at the cellular level and destroying the malignant cells. As a result the disease went into remission. Tubby began to show increased levels of cytoxic antibodies, loss of viremia, and correction of cytological and hematological abnormalities. Simply put, he's cured.

"Mr. Polmeroy," she said, folding her hands in front of her. "There will always be a risk-reward trade off in any type of R&D. But if this technology produces the medical revolution we anticipate, I'd say the reward far outweighs a very negligible and ultimately manageable risk."

While Kotuko-Sinclair led the others back to have another look at the cube, Holden and Glover remained in the kennel. Glover led Holden to a large metal freezer unit. Lifting its lid, a layer of glass was all that separated Holden and Glover from the specimen packed in dry ice.

"This is the cat, huh?" asked Holden. It was an orange cat with large blotches of hair missing. An extra leg grew from its side. It looked like a dog's leg. The face was deformed. The eyes were harsher and the mouth larger than

a normal cat. Holden had read the accounts of the incident in Glover's most recent briefing. Yet seeing the specimen in person was more shocking. "What do you think happened?" he asked.

"I don't know," said Glover, perplexed. "Tonto was Tubby's twin in everyway. The only procedural variation was that instead of injecting the feline with the prototype through a needle, like we did with Tubby, we pushed the prototype through an I.V."

"You weren't treating it for leukemia, correct?"

"No. Tonto suffered from feline diabetes. We mixed the prototype with a sugar-water solution we'd been using to keep Tonto hydrated. Literally minutes after being injected with the prototype, he became very ill."

"The report made it sound gruesome." He put his reading glasses on and crouched to look at the dead animal.

"It was horribly gruesome at first," said Glover. "But then he seemed to recover slightly only to become incredibly aggressive. That's when he started morphing a fifth leg. The leg was very different in every conceivable way from a feline's. Fiona was the one who realized it looked like the leg of a cocker spaniel. A few months earlier we had a cocker spaniel named Max that we kept in the lab—in the same cage that we later kept Tonto. After checking the cage we found traces of hair follicles from Max. Apparently Tonto had ingested some of those follicles, and somehow…" he slowed and looked at Holden, acknowledging how hard this was to believe, "somehow the cocker spaniel's DNA code was unraveled by the nanobots and they constructed the leg."

"Spontaneously?" Holden said, rising back up and taking off the glasses.

"Spontaneously. The nanobots injected were not even encrypted with a replication protocol."

"How do you account for that?"

"We can't yet. We eventually subdued Tonto and put him to sleep. Apparently mixing the prototype with water had caused the nanobots to malfunction."

Holden again looked at the mangled creature. The bizarre leg protruded from its side. It reminded him of something he'd have gawked at in a *Ripley's* magazine as a kid. "Why do you think that is?"

"We've studied it closely and we think it has to do with the replication of nucleic acids. As you know, in a living organism, information is stored by the sequence of nucleic acids in a cell. These acids constitute the programs for the key functions of the organism. By building in the appropriate enzymes into our nanomachines, we've been able to replicate the nucleic acids in a living organism with an error rate of just 10(-6). However, when the nanomachines are exposed to water, the ability to replicate the nucleic acids is skewed. The error rate under these conditions has jumped, registering from 10(-7) to 10(-12) depending on the amount of water introduced."

Glover handed Holden a chart. Data backed up his theory. Glover continued. "That may not seem like too terrible a variance, but these miniscule changes have caused tremendously different reactions in our test rats and hamsters. We've seen cases of spontaneous morphing, spontaneous growth, spontaneous multiple replications. In one case, a hamster morphed into three hamsters instantly after adding just three droplets of water to the prototype. We've seen some unbelievably bizarre things. It's been a real wake up call about how much we still don't know, and

about how much work there is left to do before we can ever begin to think about taking this to market."

"How did DeNardo respond?" asked Holden with a deep sigh, as if bracing himself.

"Not well. He wanted to make sure we tightly controlled who knew about this. Most of the researchers you met have no idea. They think Tonto died of his disease. I tried to tell DeNardo surprises like this often happen in early R&D phases of experimentation. I mean, I'm still very excited about the progress we've made. We're much further along than we could have possibly hoped for at this stage, but there is still so much more we have to learn. You know as well as I that this will not be the first setback we'll have to work through. DeNardo didn't want to hear it, though. He wants this project done, and he wants it done yesterday."

"Perhaps I can talk some sense into him," Holden said. He peered at the cat again. It drew him in and wouldn't let him go.

"Perhaps," said Glover. "But I wouldn't count on it."

Polmeroy stared through a Plexiglas window at what appeared to be a more advanced clean room environment. Five workers, facemasks covering all but their eyes, loaded trays of laboratory cultures of some sort into a pulse-tube freezer. A colleague watched.

The freezer was small, only about three feet high. Outside of three stackable incubation trays—holding about fifteen five-inch Petri dishes each—the freezer was empty.

Polmeroy surveyed the simple room. Surveillance cameras hung from the aluminum ceiling tiles. He noticed similar cameras in other areas. For an operation located in

such a remote region, it was amazing how worried they were about security. A significant amount of the cost of the project was wrapped up in security functions. That could mean only one thing: they didn't trust their own staff.

As the last tray was loaded, one of the men—the one watching—walked towards the room's air shower. The blowers activated. He exited the environment. Stepping out, he noticed Polmeroy and undid his mask. It was Stephen DeNardo.

"Good day, Mr. Polmeroy," he said. "I trust you are enjoying your tour."

DeNardo and Polmeroy met briefly at breakfast. He was just as harsh looking in person as he was in his dossier photo. It was obvious by the way the staff reacted to him that he—not Holden or Glover—called the shots down here.

"I am enjoying it very much. It's very impressive. What's this room?" he said, tapping the Plexiglas.

"This is where we do much of the assembly of the nanomachines. That freezer is where we store the nanomachine cultures."

"Is this your only storage facility?"

"Curious, aren't you?" DeNardo's eyes were harsh.

Polmeroy shrugged. "I'm a journalist. It comes with the territory."

DeNardo smiled. "Yes. It costs us about a hundred thousand dollars to produce each nanomachine, so we're very careful about the number we keep in storage. We'll have another hundred specimens sent from Palo Alto in spring."

Polmeroy started to ask another question, but a muffled scream emanated from down the hall. The two exchanged glances. They rushed to see what had happened.

# STAGE TWO: PRODROMAL

: period where there is onset of symptoms but they are still general; diagnosis may or may not be possible.

# 5. MALAISE

Nishi lay in bed, eyes closed. An I.V. ran into his right arm and an oxygen tube into his nose. A bandage covered the large gash on his forehead, which required seven stitches to close. He was gaunt, his facial muscles sagged, and his pulse was still too low—about thirty-five beats per second. Holden knew it was probably always low due to Nishi's running regimen, but not to this extent. Still, his condition had improved. He was breathing easier. For the moment he appeared out of danger.

He startled everyone, especially Brady who let out a surprised cry, when he collapsed in the laboratory. His head crashed against a pushcart, opening the forehead wound and covering his face with blood. Holden sutured the wound, something he hadn't done since his days as a resident. The old man was moved back to his room using one of the clean room pushcarts as a gurney.

"Mr. Nishi, can you hear me, sir?" Holden whispered.

"Yes, Dr. Ryan, quite clearly," he mumbled, not opening his eyes. The color in his face was as washed out as the bed's faded linen.

Examining him, Holden noticed a pronounced surgical scar across his abdomen. He asked him about it.

"I had surgery on my prostate a year ago," he said.

"Did they remove it?"

"No, they inserted implants."

Holden had read about this treatment in the journals and talked to colleagues about it, but Nishi was the first he had met who had actually undergone it. The procedure consisted of implanting small cylindrical rods into the prostate. The methods were similar to those employed to implant radioactive brachytherapy seeds.

Originally, when the treatment was developed early in the decade, the patient was placed in a huge machine emitting an external alternating magnetic field. This caused the rods to heat and warm the surrounding tissues. As a result the proteins denatured or unraveled, killing the malignant cells, while also coagulating the blood supply. The cells were starved, causing them to die.

In the last eighteen months, though, a new form of the therapy had been employed. Patients were prescribed small belts with attached devices—much like a heart pacemaker—that rested near the prostate. The attached device created the same alternating magnetic field of the larger machines, allowing patients more constant treatment. Holden glanced around the room. Nishi's belt rested on a chair in the corner.

"Listen, Mr. Nishi, we are trying to get you out of here as soon as possible. You need the care of a hospital. We are seeing if we can get a helicopter to ferry you to McMurdo Station. We'll get you a flight to Auckland."

Nishi mustered a half smile. The morphine drip numbed his body. "Dr. Ryan, we both know I have little time left. I understand this. I'm at peace, no need to be somber or worry. I have been alone too many years now. When I pass, it will be for the better."

Holden was quiet. Nishi was right. His cancer had reached the advanced stage. In all likelihood there was nothing to be done for the old man either here or in Auckland. A hospital would simply make his final days more comfortable than a drafty dormitory in Antarctica. Holden made a page of notes and placed the pad next to the bed.

"Mr. Nishi…" he said. There was no response. The old man had fallen asleep. Holden pulled the blue wool blanket around Nishi's chest and dimmed the desk lamp. He glanced at his watch: a bit after noon. He would check on Nishi again in an hour.

He exited into the hallway where Brady and Polmeroy stood.

"Well, how is he?" asked Brady, still embarrassed by the shrill scream she emitted. The loud crash had caught her off guard. The result was some sort of primal involuntary reaction. At least that's how she rationalized it.

"He's dying," Holden said matter of factly. "I think he's still very dehydrated from yesterday, and I think that's what ultimately caused his collapse. I've started an I.V. He appears to be in a great deal of pain, but luckily the station had morphine in its medical ward." He looked at Polmeroy. "I think his cancer is more advanced than he's let on, Bindu. I found an entire case of morphine in his belongings. He must be in some extreme and regular pain."

Brady hugged Holden. The news saddened her. More so than he would have guessed—she'd only known him a few days.

"Listen," he said. "He's peaceful, thankful. He's led a very, very full life. There's not a lot more we can do. We'll try to get him out of here, get him to Auckland. But the fact

of the matter is, he's going to die, no matter where he is, the trick now is to make him comfortable."

Holden looked at Polmeroy. "Have you called for a copter?"

"I'm waiting on Pig, he's gone to make the call."

"Think a copter can get in here? What's the weather?"

"Glover said it's worsened considerably," Polmeroy said. "The station's operations team is a little worried. They aren't used to this much snow this early in the season. There is a concern it could cause instability in the drifts."

Polmeroy looked uncomfortable. He was fidgety. He couldn't stand still. He looked like he was late for something. More to the point, he looked like he was being kept from doing something.

It struck Holden as odd.

Polmeroy watched Glover and Kotuko-Sinclair approach. Their gaits quickened when they saw the worried faces.

"How is he?" Kotuko-Sinclair asked.

Holden reiterated the prognosis. As he did, Polmeroy became more and more antsy. While concerned for Nishi, his usefulness to the entire operation had run its course. He had served his purpose and been just the icebreaker needed to open the lines of dialogue with Holden and garner an invitation to the station. That Nishi was also extended an invitation was unfortunate. His presence now handcuffed the completion of the mission. Polmeroy knew if he didn't act interested and stand vigil with the others, they'd become suspicious. DeNardo was already onto him.

Pig lumbered down the hall.

"Did you radio McMurdo?" Polmeroy asked.

Pig's face scrunched. "The friggin' radio is on the blink again. The storm might have jacked up the antennae."

"Can you fix it?"

"Yeah, it happens a couple of three times every winter I'm told. Have to go out in this shit, though. It's really howlin' out there, wind must be blowin' a hundered. If I'm goin' to get this thing fixed, I can't do it alone. I need a wingman. Up for it?"

"Sure," Polmeroy said. This was just the opportunity he needed.

"Beautiful. Let's go, before it gets worse."

"Give me a minute, okay?" said Polmeroy.

"I'm goin' to put on my heavy weather gear. Meet me at the main entrance in fifteen minutes."

Polmeroy glanced at his wristwatch. He rotated the timer-face a quarter of the way. "Fifteen, got it." He apprised Holden of his plans, and before walking off, pulled Kotuko-Sinclair aside. They walked a few steps down the hall.

"Fiona, I had one quick question, if it's okay," he said with a smile.

"Sure."

"I know the timing is odd, but when we were in the laboratory, I couldn't help but notice the EOC technicians loading trays of nanomachine cultures into a freezer. I was talking to Holden and he said those were the only nanomachine cultures at the station. There looked to be less than a hundred, is that all you guys are working with?"

Kotuko-Sinclair shook her head. "No, we have another thousand cultures at a separate pod we call skunkworks. These things can't be transported easily, so we've tried to store enough to last an entire rotation."

"You don't have regular shipments from Palo Alto?"

"No." Polmeroy knew she was sizing him up. She was a sharp one. He could feel hesitation in her voice. It was as if she was deciding right on the spot whether he was trustworthy or not.

"Why do you ask, Mr. Polmeroy?"

"No reason," he said. "Naturally curious."

Premonitions. Brady's mother always claimed to have them. Not that she thought herself psychic or gifted with any kind of otherworldly powers. She just knew innately when something big, something life-altering was about to happen.

Sometimes those premonitions came in dreams, like when she awoke in a panic, having imagined her father's death. The next morning she received a call saying he'd been killed in a car accident. Other times they were more enigmatic. She'd be overcome by a simple feeling so strong it would make her leave a movie in the middle, rush to the lobby and call the babysitter to ask about six-year-old Brady, only to learn the little girl, perfectly healthy when her parents left earlier in the evening, had been stricken with a fever of a hundred and three.

"It's more than women's intuition," she always said. "It's stronger. It's not about knowing something; it's about feeling something deep, deep inside. It's about feeling it so strongly that it becomes impossible to ignore, impossible not to know it's real."

Brady always thought her mother was crazy when she spoke like this. How could you feel something, sense something, before it happened? It was illogical on every level. Sitting alone in the old, musty recreation room of Arctowski Station, a Spanish language version of *Three's*

*Company* in the background, she felt a sense of dread that she could not shake, no matter how rationally she tried to think.

Her hands quivered. Nervous energy cut through her sternum with the uncomfortable rush of a roller coaster. Maybe it was a reaction to Nishi's illness. It startled her when he collapsed. It reawakened memories of the terrifying sensation she felt when her father collapsed from a fatal heart attack years ago.

Still there was something else putting her on edge. This was not like her, not like her at all. Something was coming. What that was she was unsure. The entire situation seemed wrong. The remoteness of station. The severity of the storm. The nature of the project. Polmeroy's warnings. The chilly—and she could not help but feel, slightly threatening—reception from Stephen DeNardo. It added up to something greater than the sum of its parts.

A harsh voice echoed down the deserted hallway. She craned her neck and peered around the worn pool table. She could not see its origin. It was a man's voice. Whoever he was, he was nearly popping a vocal chord.

She rose, snaked around the pillar that was the unofficial gateway to the recreation room, and looked down the hall. The door to one of the administrative offices was propped open. She saw the dark figure of Stephen DeNardo silhouetted. He was screaming at someone just out of view. Creeping down the corridor, she tried to get a sense for what was happening. Odd phrases could be heard, but not sentences.

"Those people," then "security breach." The closer she got, the more she picked up. "What were you thinking?" came through loud and clear. And then, "You don't even know who this Bindu Polmeroy is…"

Brady caught DeNardo's eye. She stopped. He stared at her with the heat of a shard of glass left out in a blazing desert sun. Her back stiffened and her jaws clenched. She stared right back at him. She had stared down assholes bigger than this before. He took a step towards the doorway, but before she could react, he slammed the office door with a violent flourish. A deep breath later, her muscles relaxed. The yelling resumed.

"What just happened?" she muttered, the feeling of dread returned stronger than ever. This was what her mother meant by a premonition.

This premonition warned of something very bad.

"Those are the craziest boots I've ever seen," said Polmeroy.

"Thanks, we call 'em bunny boots." Pig raised his leg so Polmeroy could get a better look.

They looked like something Mickey Mouse would wear. They were large, white and featureless with an inner layer of rabbit fur.

"They're ugly as hell, but they keep the dogs warm," Pig said and threw Polmeroy a large red parka. "That should fitchya. Try it on, it'll keep you warmer than that piece of shit you're wearin'. Take these, too." He handed him a pullover ski mask and flashlight.

Polmeroy slipped on the gear and tested the flashlight before placing it in the parka's pocket. The two entered the main enclosed vestibule, which connected to the exterior door. It kept cold air and blowing snow out of the pod's interior.

"Ready, yo?" Pig asked.

"Ready."

Body as stout as a beer keg, Pig dropped his husky shoulder and, with his powerful legs providing leverage, pried open the main entrance's heavy-duty, heat-traced door. He fought the gusting wind every inch. Polmeroy snaked his way past him and through the door's narrow opening. Pig rolled out behind him.

The weather was far worse than the day before. The sky was darker. The blinding white was replaced by ominous gray. The temperature had plummeted as well. The pelting snow made Polmeroy's eyes water. He threw his bent arm across his face for protection.

"It's about minus-ten out here," Pig said through clenched teeth. "Dropped twenty degrees since midnight. Snowed about twenty-five inches, too."

Each step was a labor. The snow rose towards Polmeroy's knees with each rotation of his slender hips. Pig led them to a SnoCat LMC-1500, a five-passenger, track-wheeled vehicle with a blade-equipped front. The two piled into the cab.

"Not laughin' so hard at these bunny boots now, huh?" Pig said, a gigantic plume of condensation escaping his lips. He pulled out his key ring, crammed with at least a hundred keys of all shapes and sizes, and found a long, copper key. Sticking it in, he cranked the ignition. The SnoCat's diesel engine sputtered and choked. "Piece of shit needs a tune-up bad," he said, slamming his hand against the steering wheel. He cranked the ignition again. The engine rumbled and wheezed to life. Pumping the gas, it roared.

He threw the machine into gear and they lurched ahead. Polmeroy's head snapped forward like a rag doll. The SnoCat cut through the thickening base of snow and ice more efficiently than Ivan the Terra Bus. They rolled

over drifts and around the dormitory pod. “How far is the tower?” Polmeroy asked, glancing down at the toy hula girl glued to the dash. Her hips swayed with the ride.

“Half mile; near the base of Jardine’s Peak.”

Rolling through the heart of the station’s campus, Polmeroy glimpsed other pods. Their flat roofs poked from drifts. He tried to get the lay of the land, but it was disorienting. He was having a hard time establishing any landmarks. There just wasn’t enough visibility.

“That’s the top of the biosphere,” Pig said. “The tallest pod on campus; three stories high, although two are sunken ‘neath ground. Over there is the geological research pod. And if you had Clark Kent x-ray vision and could see through all this shit, over there you’d see the pod housing Dr. Ryan’s project.”

The SnoCat dipped and lifted with bone-rattling consistency. Occasionally it dropped with a thud Polmeroy was certain it could not recover from, only to continue its undulating charge. Looking at Pig, he sized him up.

Polmeroy had for years played a private game of summing others up in one perfect adjective. Kotuko-Sinclair for instance, he deemed *studious*. Glover, on the other hand, was *deliberate*. At first he thought Holden *brilliant*, but had since come to understand that *naïve* was more accurate.

Brady? Well, he was withholding judgment on her for now. She was certainly bright and seemed to have a lot of spunk, but he was also a bit surprised by how little she seemed to know about her husband’s work. That disappointed him. He wanted to like Brady. He didn’t want to think of her as someone just along for the ride. She had more going for her than that.

Pig, though, he had been thinking about. *Deceptive*, that was what his gut told him. At breakfast, when Brady asked about Pig's background, Glover laughed. Despite Pig's gruff exterior, Glover said that he was actually extremely intelligent—boasting a near genius level I.Q. He spoke multiple languages, had an excellent mind when it came to technical matters and when in the right mood quoted literature as effortlessly as hip-hop music.

Polmeroy liked guys like Pig. They sat back, did their work and took everything in. They didn't try to impress anyone. They kept their cards close to their vest, but if they could be drawn out, they were also the type who knew where all the bodies were buried.

"Dr. Sinclair said there was another storage pod where the beakers store refrigerated cultures. You wouldn't happen to know what I'm talking about, would you?"

Pig kept his eyes focused ahead. "Refrigerated cultures? Hell, I don't even know what that is. What goes on with the beakers, I keep my nose out of, know what I'm sayin'? I get paid damn good, and it's been made real clear, keep my nose out of everythin' else."

"Who said that?"

"Ain't goin' there, it might get me in a bad way."

"Was it Glover?" Polmeroy said.

"Whatta y'think? Doc and his wife are slammin'."

"Was it that EOC guy? What's his name? DeNardo?"

Pig looked Polmeroy straight in the eyes. "Ding… ding… ding…"

"DeNardo told you that?"

"Like I said, I get paid good. Don't need no trouble."

"Come on."

Pig paused, considering, then said: "You may be lookin' for skunkworks."

"That's it, that's what she called it."

"It's up by where we're goin'. I'll show ya."

The SnoCat chugged along. Wind gusts smacked against its sides. Polmeroy grabbed hold of the impact handle that hung from the ceiling, clutching it tightly. The SnoCat's cab swayed with each gust. The vehicle felt as if it was about to tip over. It reminded Polmeroy of the helicopter flight, only he felt safer aboard the helicopter.

"There's the antennae," Pig said.

As they cleared a large drift, the antennae tower was visible through the "snow fog." It rose about a hundred-twenty feet, the top disappearing in the muck. It looked like the top of the Eiffel Tower, with its crisscrossing metal work frame. Polmeroy winced. He had bad memories—and a good-sized scar—as a result of his last trip to Paris.

"You can't see it, but at the top of the tower, there are two antennas," Pig said. "A round dish and a metal loop. That's what allows our radio and television reception and transmission as well as functionin' of the INMARSAT."

Pig pulled the SnoCat to a halt. As the two exited the vehicle, force as tangible as a brick wall blindsided Polmeroy. His knees buckled and forced him face first into the snow. It was the wind. It was gusting and swirling. He watched as Pig lost his balance as well, falling next to him. From the ground, they looked up. The tower swayed like a helpless willow in a tornado.

"Never seen shit like this before," Pig said, his beard frosted with snow.

"What?" said Polmeroy. The wind caught his words and carried them off. It was like talking in front of a jet engine.

Pointing towards Jardine's Peak, Pig yelled as loud as he could. "Looks like the wind is knockin' against the

mountain and whippin' back. It's like a God damn racquetball court, only we're the racquetballs."

With a moan followed by a muffled crash, the SnoCat tipped over like a Tonka truck. The cab disappeared in a drift. "Jesus, this is a damn hurricane," Polmeroy said.

"No way we can get up that tower and reach the antennas with this going on, we gotta get shelter," said Pig. He turned to the small facilities shed at the tower's base, and pointed. "There."

Polmeroy crawled in that direction. A piercing crack stopped him in his tracks. He twisted and watched the top of the antennae tower snap. Like a giant spear it ripped through the roof and sides of a blue cinder block pod about thirty yards away. Sparks flew from the wreckage.

"Shit, there goes our communications," said Pig.

"What's that pod?" Polmeroy pointed at the building.

"That's skunkworks, yo."

Without another word, Polmeroy moved towards the damaged pod.

"Christ, dawg, where you goin'?" Pig yelled. "We gotta get inside."

Polmeroy didn't flinch. He kept moving, crawling on all fours just like they taught him in basic training. A skill he refined as a Navy Seal. It took him a good ten minutes to reach the pod. When he did, he glanced over his shoulder towards Pig. He had lost sight of him. Grabbing hold of the pod's rubble, he pulled himself up and flipped on his flashlight.

"Jackpot."

# 6. SYMPTOMS

Brady stood against the catwalk's steel railing and peered down at the lush tropical scene. Dressed in a long sleeve "Race for the Cure 10k" t-shirt and cotton-and-lycra jeans, she leaned over the railing, let a sudden rush of vertigo pass, and allowed the dense spectacle to fill her eyes. She should have brought her camera.

Two mighty araucari trees rose past her third-floor vantage point. Their massive trunks sunk into the cultivated Antarctic soil and their stout umbrella-like branches crowded the facility. They provided refuge to among others, a soft-billed toucan and a herd of chattering, brown howler monkeys. The foliage at ground level was thick and alive with a kaleidoscope of colors. The environmental chamber was populated by everything from a black cougar to crocodiles. They all relaxed in the sparse natural sunlight afforded by the translucent dome enclosing the area and supplemented by giant fluorescent lights hanging from the dome's steal beams. It was every bit as bizarre and beautiful as she had imagined.

She unfolded the four-color brochure on the facility that she'd been given by Glover.

More than a greenhouse on steroids, the biosphere, established in early 2007, was a flight of fancy like the

world had rarely seen. The three-story structure, the bottom two levels of which were sunken into excavated earth, was exactly as *National Geographic* chronicled: "It is in fact the world's largest, living snow dome, only in this case, the snow is outside the dome." Internationally registered as a scientific endeavor by Swiss consortium GenSci, whose mission statement for the facility called for "the establishment of a completely enclosed tropical ecosystem in the world's most inhospitable place," it was widely known as the brainchild of the famously eccentric Swiss billionaire, banker and part time environmental activist, Peitar Gint.

Part political statement, part artistic statement, part scientific research, Gint had sunken nearly a half-billion dollars of private funds and a matching amount from donors across the world to bankroll the vision he articulated after first visiting the Amazon basin. As Gint told *National Geographic*, his money allowed him access to "one of the great remaining remote regions of the world, far removed from the inherently destructive and technologically careless fingerprint of man. It will stand as a living photograph of the power of nature long after man has destroyed his world, and much more tragically, that of these proud animals."

Folding the brochure and placing it in her back pocket, Brady lost herself in her surroundings. Her concerns seemed as far off as the actual Amazon.

The trembling of the catwalk brought her back to reality. Turning, she saw Holden.

"The lab assistant gave me your message," he said, unzipping his soft perforated leather jacket and airing out the white linen shirt underneath. A bead of sweat rolled down his temple. "Humid in here, isn't it?"

Words normally came easy for her—after all, spinning them was what she was paid well to do. But this would be trickier, more delicate. This was her husband, not a gaggle of faceless reporters. These were his dreams she was dealing with. She could not be cavalier. In agency-speak, Holden was the tent-pole account. She couldn't blow it. Smiling, she hugged him. "I love you, Holden."

His blank expression told the story. Hugging her back, he said, "I love you too."

"Promise you won't be irritated."

"Why would I be irritated?" Her face narrowed. "Okay, I promise," he said.

She told him how she felt, careful to edit the word "premonition." It was an unwise noun to use in the presence of a man of science. Knowing her audience was a basic tenet of her job. In this case she had done her homework about as well as she could. As she talked, she noticed his crows-feet deepen. It was a sure sign, she had come to understand, of his trying to comprehend something that he considered patently absurd and/or irrational. That angered her. She was not irrational. He knew that about her.

When finished, she sensed he was unsure what to say. So he pulled her close and masked his confusion in a hug. She had not done her best spin job. Her managing director would not have been happy.

She broke free. "So? You think I'm crazy, don't you?"

"Of course not," he said, although she could tell he just might. "It's been a whirlwind last few weeks, especially with the wedding."

Oh no. Here came the wedding excuse… again. In the months leading up to the wedding and in the time since, whenever she felt something out of the ordinary, to Holden

it was because of the wedding. As if a marriage ceremony was catnip to women, causing them to lose all rational thought three months either side of the blessed event.

He added, "You probably just need rest. I think you're starting to imagine things."

"I'm not imagining things." She folded her arms as if to fortify herself. Her jaw clenched. She didn't like to be talked down to, something she'd have guessed Holden would have understood by now. He may have been brilliant, but he was not always smart. "I'm telling you how I feel."

He recoiled. He had whacked the hornets' nest. "Listen, poor choice of words," he said. "It's just I don't understand. Explain to me."

Her facial muscles relaxed. "I don't know, a feeling; an instinct—surely you've had those before? I just have a really bad feeling about all this."

He didn't offer anything.

"I know what this means to you, I do. You know that. I would have never agreed to spend our honeymoon this way otherwise. But there is something not right here, don't deny me you feel that just a little… just the tiniest bit."

Again he didn't say a word, but his eyes betrayed him. His brows lifted and eyes widened.

"See, I know you, Holden, I think you know what I'm talking about."

He exhaled, another of his telltale signs: he was annoyed. "Listen, DeNardo caught me off guard, I'll admit that. But what else is 'not right'? A storm? We're in Antarctica, they have shitty weather here, that's why there's an entire coastline without condominiums. Polmeroy and Nishi? We knew about them when we extended the invitation."

"When *you* extended the invitation," she said. Her index finger touched him in the chest.

"Okay, when I extended the invitation. Part of the fun of bringing Polmeroy was to try to convince him that his fears are absurd. And as for the project itself, this is my work. This is what I've spent all these years developing. Please tell me that you're going to value my assessment a bit more than a disasturbator like Polmeroy."

Brady wasn't budging.

"Be reasonable," he said. "Day after tomorrow, if the weather improves, we'll be out of here and in less than a week we'll be on a plane home and the business of starting our lives."

Brady glared at him. "Let's go now. Let's get out of here. Let's start our lives together now."

"Brady, don't be silly. You know we can't leave."

"Why not?"

"Starters? The weather. Until it breaks, no one can fly in or out."

"Why can't we drive to another station in the terra bus?"

"Because the nearest station is on the other side of the island, and in this weather, that might as well be halfway to the moon. Secondly, how would that make me look to this vast team I've spent my professional credibility assembling. Please, I'm begging, be reasonable."

"I'm very reasonable, Holden. I'm telling you something bad is going to happen if we stay. I know that as certain as I know anything."

"And I'm telling you nothing is going to happen." His cheekbones flexed from the grinding of his jaw. "You've got to understand…"

His words were cut short by a sudden slap to his right shoe. He glanced down at a bright yellow stain on his dark brown shoes. Looking up he saw a bird sitting in one of the dome's beams. The bird almost smiled. It had pooped on his shoe.

"Son of a… these are three hundred dollar shoes," he said, his features harsh. He leaned over and examined the damage.

She looked at him in amazement. Was he really going to let this distract him from their conversation? "It's okay, Holden. It'll wipe off, trust me."

"Maybe." He pulled a handkerchief from his pocket and buffed the shoe. Nothing came off. "If you've got this new ESP, why didn't you tell me that was going to happen? Didn't you know that as certain as you know anything?" Finally, he gave up on the shoe, shaking his head. He glanced at his wristwatch. "Are we done?" he said.

Brady looked at him. She didn't know what to say.

Sighing, he said, "Okay then. I'm going back to work. If you need me I'll be in the lab. I'll meet you for dinner in an hour." He leaned over to kiss her forehead. She pulled back. She was in no mood for affection. "Have it your way," he said, jaws grinding, and walked off.

Polmeroy climbed over the pile of rubble and squeezed his way through the far end of the gash. It ran almost the entire length of the pod. Straddling the opening, he knocked one of the cinder blocks loose. The entire structure rumbled. He feared it was going to collapse around him.

Once inside, he noticed a small pile of papers that had ignited. He walked towards the crackling flames and took off his gloves. Peeling back his ski mask, he warmed

himself. The ice particles that had accumulated on his beard melted. After a moment, the circulation returned to his fingertips. He grabbed the fire extinguisher from the wall and smothered the flames before they grew further.

He tried the light switch. It didn't work. The beam of his flashlight illuminated the room in small patches. The antennae tower had pierced the back of the pod. The roof and walls had collapsed around its bent metallic frame. The front half of the building still stood, if only barely. He could see what looked like the security entrance protocol in the distance. The lights to the ATM-style scanner were dark. This was one way to beat EOC's security.

The area around him looked as if it might have been similar to the class-1000 clean room only with at least five-times the freezer capacity. He walked to the far wall, where freezer units were lined up like dryers in a Laundromat, and felt their tops. They were still. The juice powering them had been cut. He kneeled and with a yank of the chrome handle, opened the first. It contained trays of Petri dishes, just like the ones in the main laboratory.

He slid his gloves back on, held the flashlight in his mouth, and examined each tray's contents. The cultures appeared to be categorized in three ways. The first three freezers contained Petri dishes that looked like what a doctor would use to test for strep throat. They contained a red, jelly-like disabling agent. The markings "A" or "B" were hand printed on the plastic lids. The fourth freezer had dishes stored in a blue substance marked "C." He took an example of each "A", "B", and "C", and stuffed them in his pocket.

Turning the flashlight towards the final freezer, he was stunned by what he found. Flying debris had battered the freezer. Its entire side was ripped off. The Petri dishes had

been thrown from the unit and the red jelly inside splattered across the floor and splashed up the white wall. It resembled a homicide scene.

It took a split second for understanding to coalesce in his mind. “My God,” he mumbled as it all sunk in. His heart raced. He pulled the mask back over his face. Taking a deep breath, he held it and climbed back outside the pod, tripping over jagged chunks of debris and falling face first into a snow bank. He struggled to his feet, only to notice he’d sliced open his right palm through the glove. The snow was stained with blood. The pain was sharp. He glanced at the wound, pulling back the glove’s wool for a better look. It didn’t appear too deep, but it was bleeding pretty good. He took a handful of snow, cupped his hand, and pushed his way back through the drifts towards the utility shed. The wispy outlines of the simple shack were within sight. He dropped the bloody snow, and grabbed a fresh handful. The pain ebbed.

He heard a harsh crackle. It sounded like a shotgun blast, but wasn’t. He had heard this sound before, just outside Bern during operation Mongoose. It was a sinister sound, one he had hoped to never hear again.

He whirled and looked toward the volcanic neck of Jardine’s Peak. The jagged, rocky summit was hidden in snow fog. A terrible roar filled the area. At first it was muffled, but then deafening and uncontrollable. It was the sound of momentum. The ground rumbled and shook. Polmeroy was knocked to his knees. He scrambled to his feet, and with every inch of power he could muster from his athletic frame, moved his body with abandon towards the shed. He knew what was coming.

He had heard the sound and felt the power of an avalanche before.

Holden checked Nishi's vital signs. They were much stronger than the previous hour, his pulse up over seventy beats per minute. Sitting on the wooden chair by the bed, Holden logged data on the legal pad, but he couldn't keep his mind off Brady. She had every right to be uncomfortable. What had he done to make her feel good about her own honeymoon, other than drag her to the literal end of the earth with a group of strangers? Could he blame her for feeling uneasy?

Nishi's eyes were closed, but his weathered chin moved. A mantra slid from his lips. "*Om Mani Padme Hum… Om Mani Padme Hum… Om Mani Padme Hum…*" Nishi's spirituality was obvious from the moment Holden met him. There was a tranquil inevitability in his manner. It was consistent with one who had given his being to a higher power. At dinner aboard the ship, Nishi recalled how as a youth he nearly pledged his faith in an attempt to become a Buddhist monk, before eventually pursuing his love of science.

"Buddhism is a religion of extremes, more so than I was willing to commit to," he said. "Once, Aki and I were driving at fourteen-thousand feet in the east TAR, when I nearly ran over two monks sprawled in the middle of a narrow dirt road. They were prostrating their way across the country to Lhasa, a thousand miles and two years distant. The monks, protected only by rawhide kneepads and wooden blocks strapped to their hands, lowered and extended themselves from toe to nose, scrambled to their feet, took two steps forward and repeated the whole routine. We stopped, and Aki, as curious as ever, asked one

of the monks why he would do such a thing, and he replied simply, 'To show humility to our only master, Buddha.'"

Upon hearing the story, Holden offered a cynical chuckle. As if to answer his skepticism, Nishi looked at Brady, perturbed by her husband's callous reaction, and said, "If there is one thing that my life in science has taught me, it's not what little we know, but how profound is the chasm of what we cannot comprehend."

Touché, Holden thought now as he sat at the old man's bedside, although he would still take science over mysticism any day.

"*Om Mani Padme Hum… Om Mani Padme Hum… Om Mani Padme Hum…*"

The mantra waned. Nishi opened his eyes and focused on Holden with a precision that unnerved him. It was as if the old man was aware of him sitting there the entire time.

"Dr. Ryan."

"Hello, Mr. Nishi. Feeling better, sir?"

"Much. What is the time, if I may ask?" He was more lucid than at any point since morning, something Holden noted.

"Late afternoon. Are you in pain?"

"No," he said, struggling to sit up. Holden reached down and helped the old man, grabbing an extra pillow from the closet. He propped it behind his head. Nishi felt the bandage on his head and smiled. "Seems I was my own worst enemy today."

"A small cut; we closed it with seven stitches, it'll be fine. One problem, however. I mentioned this morning that we're going to try to get you out of here as soon as possible. Unfortunately, we've been unable to establish radio contact, seems the antennae is down. Pig and Bindu

went to fix it a few hours ago, but haven't returned. Once they're back, we'll try to…"

"Don't worry, Dr. Ryan. Please, as I said, it is quite all right."

Nishi had been up since the last time he had checked on him. That was good. His strength was improving. He had strapped on his alternating magnetic field belt (AMF), the blue, plastic encased pulsating device at the front of the belt was nestled against his waist.

"I see you've strapped on your AMF."

"Yes, I tend to feel more invigorated after treatment."

"Does it give you more energy?"

"Most certainly. It is a wonderful elixir as well as a magnificent conversation piece."

"Conversation piece? How so?"

"Hand me that spoon."

Holden handed the old man the spoon sitting on the nightstand's edge, and Nishi held it near the belt. The device's magnetic force sucked the spoon in and welded it to the outer casing. Nishi laughed, forcing a smile from Holden.

"Mr. Nishi, I wanted to ask you about your condition. You saw the advancement we've made here, and what we did for that cat. Dr. Glover, Dr. Kotuko-Sinclair, and myself have consulted, and it's still very experimental, but I thought…"

Nishi smiled and reached for Holden's hand. Clutching it, he said, "No, Dr. Ryan. I'd rather not."

"But in your condition…"

"Thank you, I understand. Nature has a way of planning things; we all have roles we play. As I said before, I have no regrets. There is a time for everything; as a

scientist, it took me many years to learn that lesson. If this is my time, then it is for a reason."

Holden did not force the issue. The offer was made. It was up to Nishi to decide. "You'll let me know if your position changes?" Holden said.

Nishi nodded.

Apparently, he sensed something deeper was bothering him.

"What is wrong, Dr. Ryan? You seem to lack your energetic spark."

"Nothing."

"Please, Dr. Ryan, I am old. If anything good comes of age it's that people feel free to share secrets, knowing you will soon be carrying them to the crypt."

Holden rehashed his argument with Brady in the biosphere. "It just all sounds so illogical, feeling the way she does. How can you merely *sense* something, and base a decision solely on that? It's ludicrous."

"Some are more in touch with their spiritual self than others. Perhaps what she said doesn't make sense to you, but in time maybe you'll learn that it should."

"Yeah, well..." Holden hated cryptic warnings. It was one of the reasons—although certainly not the primary reason—he had such disdain for organized religion. He hated the use of the unknown as a threat, a way to demand submission to a belief structure. It contradicted everything he stood for as a man of medicine and science. Brady liked to say "there are no atheists in foxholes." Holden always rolled his eyes at that one. The logic behind it made him tired. If God existed, Holden was more than willing to meet with him. Until then he'd find his own moral center.

"You are not spiritual, are you?" Nishi asked.

Holden said nothing.

"Yet, you married one of profound spirituality. What does that tell you about yourself?"

"That I like to knock my head against a brick wall every so often."

Nishi shot Holden a disapproving look.

"Listen, I love Brady more than anyone can possibly love his wife. She's amazing, stronger than I am, kinder than I am. But we are very different; religion is just one difference. It doesn't mean anything. It's not a sign, if that's what you're suggesting, that her spirituality fulfills some deep need of mine. I like football, she doesn't. Does that mean she's searching for meaning in the NFL?"

Nishi was not impressed. "There's a wonderful poem by the Buddhist Kobo Daishi. It's twelve centuries old, but you should examine its spirit, Dr. Ryan. It goes:

*Studying the same doctrine,*
*Under one master,*
*You and I are friends,*
*See you white mists*
*Floating in the air*
*On the way back to the peaks.*
*This parting may be our last meeting*
*In this life.*
*Not just in a dream,*
*But in our deep thought*
*Let us meet often*
*Hereafter…*"

Holden paused, before saying, "What does that mean?"

"Each has his own interpretation. In time you will find yours, Dr. Ryan."

Holden was quiet. It had been a long day. All this inscrutability was giving him a headache. Glancing down, he noticed a trace of bird excrement still on his shoe.

Wetting his thumb, he rubbed it across the area, but to no avail. It was ingrained in the leather. Three hundred dollar shoes ruined. What a disaster.

He reached for the glass of water on the nightstand just as it began to tremble, as did the framed sepiatoned photograph of Shackelton that hung over the bed. Soon everything in the room shook. The severity of each tremor increased. Holden threw one hand on Nishi to keep him from being jarred. He placed another on the I.V. pole, which swayed.

"What's this?" Nishi asked, propping himself up by his elbows.

"Feels like an earthquake," Holden said.

The power flickered and the room fell into darkness.

"Mrs. Ryan, I am looking for your husband, do you know his whereabouts?"

Brady wiped away her tears with a handful of wadded tissues and turned to see Stephen DeNardo crossing the biosphere's catwalk with a purposeful stride. She hadn't moved since her argument with Holden, passing the time staring at the animals and wondering how she could have better handled the situation. She didn't know what was wrong with her. Why was she acting so emotionally? She was shedding tears. It was unlike her. Was it hormones? Was she pregnant? She knew she could not be pregnant. Maybe it was the time shift? Whatever the excuse, she did not normally act this way. Maybe Holden was right. Maybe the strain of the last few weeks had taken a toll on her.

"Excuse me?" she said. The din of monkeys cackled in the tree behind her.

"Your husband," he said, irritated that he had to repeat himself. "I was told he was here."

At least he made eye contact his time. "No. He was, but he left a while ago."

DeNardo could see she had been crying. His face curled, and he produced a handkerchief and curtly offered it. The gesture was not chivalrous in the slightest.

She knew his type. She could tell from the moment they met that he viewed women as emotionally inferior. To him women broke down too easily in crisis situations. They were unable to be tough when the situation demanded. Hard as it was to believe, a decade into the twenty-first century, those types of bastards still existed.

And here she was crying—playing to his stereotype. She was not only letting herself down. She was letting down every woman he had ever come in contact with. "No, thanks," Brady said, showing the tissues clutched in her hands. Her voice was hard and direct. "My contact was out of place. It's fine now, though."

"Do you know where Dr. Ryan might be?"

"I would have guessed in the laboratory. He didn't really say."

DeNardo examined her. His eyes crept over her body. "It's unfortunate you had to witness that scene in my office earlier, I apologize. A wife should never have to see something like that." His smile sharpened.

How could she have been so blind? It had been Holden he was scolding in the office. "Sometimes as the only non-scientist on this project, I'm forced to prioritize for the staff and it can get contentious," DeNardo said.

Brady resisted the urge to crack him in his jaw, to knock the condescending smirk off his face. Why had she

spent all that time taking Tae Bo if not for this moment? Instead, she said, "Mr. DeNardo, may I ask a question?"

"You may."

"What's going on here?"

"What do you mean?"

Her eyes blazed. "There's something you're nervous about us finding out."

He took a step forward. He was tall, nearly six-foot-three, and although his frame was narrow and unimposing, his sharp features contained a hint of menace. There was something intimidating about him. She didn't back down.

"No, Mrs. Ryan. There is nothing going on that I wish to conceal from you or your husband. I'm very saddened if I've given that impression. However, your husband's unprofessional behavior is…"

The catwalk swayed.

At first Brady thought she imaged it, but the uncertain expression on DeNardo's face told her he felt it too. They grabbed the railing as it rocked more violently. The entire biosphere shuddered like a snow globe in the hands of an eight-year-old. Birds flew from their perches. Monkeys howled. The foliage below rustled as the animals sought shelter. Looking up at the dome, her eyes did not believe what they saw. A huge tidal wave of snow and debris collapsed on its tapestry of thick, lead glass panes with a ripping thud.

The giant fluorescent lights hanging from the dome flickered then went dark. The catwalk ripped apart, the far end plummeting to the ground with a thunderous crash. Brady held onto the rail with every ounce of strength in her one hundred-and-twenty pound frame. As if in slow motion, she watched the rest of the catwalk collapse to a near ninety-degree angle.

She glanced at DeNardo. His gripped faltered. For a split second their eyes met. His confused face was framed before her, as if she was peering through her camera's viewfinder. She reached for him, but it was too late. He slid off the end of the catwalk and disappeared into darkness to the sounds of tree branches snapping.

With no time to think, she saw that about twenty-five feet of catwalk was all that separated her from safety. As the tremors worsened, she lunged for the next railing. Her biceps stretched as she tried to pull herself up. Her feet flailed in search of footing on the grated metal.

The catwalk rocked.

Her grip loosened. With one last shudder, the metal bar rolled from her fingertips. The walkway rushed from under her.

She plunged into the darkness.

# 7. DIAGNOSIS

The lights from the SBPG's—stand-by power generators—gasped for every last kilowatt of energy. Two Polish technicians were feverishly working on the control room's computer system, attempting to bring Arctowski Station back online.

Holden, Glover, and Kotuko-Sinclair hovered behind the two men, who were dressed in grimy, presumably once-white work suits thrown on hastily in the wake of the burgeoning crisis. Although brothers, the Poles did not resemble each other in the slightest.

Norman, the older by nearly eighteen years, was haggard, his face pockmarked and weathered like an old baseball mitt left out in the rain. Nikki, on the other hand, looked the part of the little brother. His face was comprised of unrefined planes and angles that had not yet fully coalesced.

Norman lay on his back, his stubby legs protruding from under the metal control table like a mechanic's from under an automobile. He rebooted the system and said, "Try it now, Nikki."

With a few compact strokes of Nikki's short fingers, the center monitor popped and hissed. A small, flashing

prompt appeared. He sighed, and said, “It is good.” He flashed thumbs up to his brother.

“Thank God himself,” said Norman, the station’s senior operations manager. “I was fearful the tremors caused lasting damage to the mainframe.”

Holden paced as Nikki hurried through the log-on protocol. One-by-one the systems flickered onto the monitors. Rows and rows of data were displayed about the particular pod their advanced programming was designed to track.

“Okay, we’re back,” Nikki said, taking a relieved drag from his cigarette.

Holden felt as if a fulcrum release had been pulled. At least one level of stress was drained from a giant well within. Unfortunately, the well was still nearly full. He leaned over Nikki’s shoulder and studied the screens.

“This is the biosphere,” said Nikki, pointing to the monitor on the upper right.

Holden was a question mark. The screens of random numbers and binary codes meant nothing to him. “What’s it say?” he said, nervous.

He and scientists from the project team had spent the previous twenty minutes scouring the station, looking for Brady. She was nowhere. Not her room. Not the recreation room. Not the refectory. Realizing she must have still been in the biosphere, Holden rushed to find her. He was not counting on finding that the tunnel connecting the pods had collapsed.

“What do you see, Nikki?” he asked again. The silence was painful.

“Okay,” Nikki said, finally. “It does not appear the dome has been breached, which is the most critical factor, but it does seem there has been an interruption in the power

flow. As a matter of fact…" his head bounced from monitor to monitor, double-checking the assertion he was about to make. "Yes, it appears all main power generators are down across the facility. We are running on SBPGs, but it doesn't appear any of them… wait, that's not true. The laboratory SBPGs are functioning, but that is the only pod with power."

"Meaning?" asked Holden.

"If your wife is in the biosphere, she's in darkness and without power."

"Without power, how quickly will the temperature drop?" he asked.

Geodeon Templeton stood in the doorway. A Euro of uncertain origin, Templeton, was chief zoologist in charge of the biosphere's collection of animals. His shoulder-length, dirty blonde hair was still wet from having been caught in the shower when the power failed.

"A space of that volume…" said Norman, considering. "By first light, the temperature will likely be near zero."

Holden glanced at Glover and Kotuko-Sinclair. He felt helpless and was having a hard time hiding it. This was his project. His team. They'd be looking towards him for leadership. He would have to provide it, no matter how personal this became.

"You okay, Holden?" Glover asked.

"Yeah, I'm okay," he said. His features tensed. He knew he wasn't hiding anything.

"We'll get her out of there, be certain of that," Glover said.

Derrick Smith, of the project team, stuck his head in the doorway. He was out of breath and said, "Dr. Glover, I've searched, I cannot find Mr. DeNardo anywhere."

"Keep looking. Has anyone checked the status of the laboratory?"

"Yes, sir. We have several techs there now."

"Good. We have to make sure the cultures haven't been compromised."

Kotuko-Sinclair stepped towards Templeton and pulled him aside. She tried to be discreet, but the room was too tiny to create any meaningful privacy. Holden's eyes locked on them.

"If anyone is trapped in the biosphere, what dangers are the animals?" she asked.

Templeton flinched. "None, as long as that person is not actually in the environmental chamber." He was perplexed. The magnitude of their situation was still sinking in.

"And if they are in the environmental chamber?" she asked.

"It depends…" he said, pushing his wet, stringy hair over his ears and placing his black-rimmed glasses on his crooked nose. The carroty hue of his skin suggested he was either wearing makeup or spending too much time in a tanning bed. Templeton called Nikki over. "Do we know if the gates to the cougar's feeding trough were opened when the power was zapped?"

"The outage occurred at about 18:30 hours, so it's hard to tell for certain," Nikki said. "The program is set for a twelve-hour cycle: 6:30 hours and 18:30 hours, just as you wished. I can't tell for certain whether the gates opened or not."

"Geodeon, on what does it depend?" Kotuko-Sinclair asked. Holden stepped closer.

Templeton's eyes rolled past Kotuko-Sinclair and locked on Holden. "It depends on whether the cougar is hungry."

On the edge of the counter, a row of five walkie-talkies sat poised in their battery chargers. The one closest to Nikki crackled. A voice was barely audible through the static. Nikki grabbed the receiver and clicked the talk button. He smiled, flashing a mouthful of yellowing teeth.

"Dr. Ryan, it's Mr. Polmeroy."

Polmeroy grabbed the blue rag hanging out of Pig's back pocket. "Do you mind, ace?"

"Knock ya'self out," Pig said, pushing at the steel door one more time. It still didn't budge. He kicked it. "Damn, we're screwed. Packed in ice in a tiny metal box. It sucks to die, but it really sucks to die like a sardine."

"Relax, we're okay. I've been in worse spots."

"Oh yeah?" he said. "When?"

"Plenty of times, ace. Plenty of times." He peeled off his bloody mitten, took the rag between his teeth, ripped it into three even strips and fashioned a makeshift bandage.

"You're going to need a tetanus shot if we get out of here," said Pig. His wide frame leaned against the corrugated metal wall. "You know that's the rag I wipe my nose with. Probably all sorts of friggin' germs on it."

"We'll get out of here," Polmeroy said, tying the ends of the bandage into a knot. With a final yank, he tightened it until it hurt. "And just as long as you didn't wipe your ass on it, I'll be fine."

Polmeroy knocked the snow from his dreadlocks and wiped his beard with the back of his injured hand. All things considered, they had come through the avalanche

okay. While not the Ritz Carlton, the shed was a sturdy little haven. Its simple twenty-by-twenty frame had survived intact. A small electric generator sat in the corner, pumping enough power to illuminate a hanging light and more preciously, the most beautiful GE space heater he had ever seen. On the down side, the snow had apparently entombed them. The building's door was immovable. Pig and Polmeroy were left with no entree to tunnel through the drifts. They would need a team from the station to get them out.

Pig pulled a walkie-talkie from his parka's pocket and said, "Okay, who wants to be Major Tom?"

Polmeroy took it.

"Channel 6," Pig said.

Polmeroy flipped the knob to six. "Hello… hello… hello…" he barked before a low, distinctly Eastern European voice answered.

"It's Nikki," Pig said. A relieved smile parted his chubby cheeks. Polmeroy asked to speak with Holden. After a moment, he was on the line. Polmeroy apprised Holden of their situation, but as they talked, Holden's voice sounded shaky. Finally, Polmeroy said, "Everyone come through okay on that end?"

Holden tried to respond, but his thoughts were choppy and random. At first Polmeroy assumed the problem was with the walkie-talkie's reception. He circled the tight quarters trying to avoid standing under the broad steel beams that spanned the ceiling. But when Holden filled him in on Brady, of her uncertain whereabouts and safety, it all fit.

"She'll be okay, Holden," Polmeroy assured, although having seen the avalanche up close and personal, he wasn't so sure. "She's tough."

There was silence. Holden said nothing. Polmeroy heard him attempt to clear his throat. Finally the walkie-talkie clicked. Glover said, "Sorry about that, Bindu, emotions are running rather high on this end. Are you and The Pig okay?"

Polmeroy felt Pig bristle. Glover would never learn it was simply Pig.

"We're fine."

"You have heat?"

"We're okay."

"Dead good, that's better than most of this station, then. Don't say we don't treat our visitors well. Let me clue you up. We are going to get a plan together to get you out of there. You may need to sit tight, though."

"We may have a much deeper problem, Julian. You have a second storage facility, something called skunkworks, where additional cultures are stored, don't you?"

"Yes… why?"

Polmeroy told Glover about the communications tower snapping and how he discovered three different strains of cultures.

"Impossible. You must have mistaken what you saw."

Did Glover know what was going on or was he playing dumb? That was the question Polmeroy had mulled since their first meeting. For that matter he had asked himself the same question of the Ryans. Who knew what, and perhaps more pressing: at this point did it really matter? He laid his cards on the very murky table.

"I don't think I'm mistaken at all, Julian, and when I get back to the pod, I'm holding examples of each of the cultures. The question is, do we have time? We may not. EOC Labs has produced more than just the benign

nanomachines you and your team have been working with. According to U.S. intelligence, they've also developed a much more deadly, weaponized strand."

"What are you saying?" Glover sounded angry, but not surprised.

"The company has been in deep financial trouble for over a year, in fact the U.S. Securities & Exchange Commission has been investigating them for a litany of alleged infractions for the past seventeen months. Some estimates say they're leveraged up to a billion dollars, and that could be a conservative figure. Their balance sheet is disastrous. They've been in desperate need of a cash infusion or else a forced bankruptcy is likely, and that's when the company's dirty financial improprieties will be fully disclosed. I've been told it'll make the Enron collapse look as innocent as a student council treasury dispute.

"The company's board of directors is not prepared to let that happen. There are some very powerful men who have a lot to lose. They know the medical and social applications you are working on are years from being brought to market, so they've taken the next, unthinkable step."

He paused, waiting for a reaction. "Go on," said Glover.

"Stephen DeNardo has a unique underworld network. He is their broker in a very nefarious example of asset management. The scientists at EOC Labs have developed a weaponized version of the nanomachine prototype. They've engineered the molecules without the Tactrin safety net and in such a way that they will spread quickly and lethally. One of the EOC technicians working on the project was smart enough to realize what was happening, and turned files of evidence over to the FBI. If you don't

believe me, go to my room and check my bag. I have copies of early schematic renderings of the molecular specifications of this strand.

"EOC has stored these mutated strands here, relying on the lack of provincial governmental control in this region, making it the perfect international K-mart for this sort of twisted shit. DeNardo has been dealing with several rogue nations and extremist organizations, each bidding astronomical sums. The scary part is, we don't know if he's closed a sale yet. To make matters even more dangerous, it appears some groups have decided EOC's asking price is too high, and have decided to take control of the technology through other means."

There was silence. "How is it a journalist knows this?" Glover said.

"I'm not a journalist, that's my cover. I'm an operations agent for the United States Central Intelligence Agency and USAMRIID; if you don't believe me, again check my bag, you'll see my identification." Polmeroy knew that would get Glover's attention. The U.S. Army Medical Research Institute of Infectious Diseases in Fort Detrick, Maryland, had taken on a much higher profile over the previous decade in light of increased U.S. domestic biological terrorism fears. No doubt fears of USAMRIID intervention played at least a small part in Glover and Holden moving the project to the Antarctic in the first place. Polmeroy said, "I've been on the trail of these specimens for four months. DeNardo is paranoid of someone catching onto his little plan. I found a bugging device nestled into the desk lamp of my room when we arrived."

"I simply don't believe it," Glover said. "I can't believe it."

Polmeroy sensed he wasn't trying to convince him of something. He was trying to convince himself.

"Believe it. There's more, though, Julian. Listen carefully, 'cause this is where it gets hairy. When the antennae tower ripped through the storage facility, it took out one of the freezer units and the cultures in it, splashed them against the wall like a goddamn Jackson Pollack. I don't know if those cultures held the benign nanomachines or the malignant variety. The cultures were marked 'B.' I'm not bullshitting. If the nanomachines in that culture dish are weaponized, we've got a serious problem."

Glover put the walkie-talkie down. Looking around the room, empty faces stared back at him.

"It's happening, isn't it?" said Kotuko-Sinclair, finally piercing the silence. "Our worst fears—*our worst suspicions*—they're being realized, aren't they?"

Glover turned to Nikki and Norman. "Gentleman, please get as many people together as you can round up. We need to locate Stephen DeNardo immediately."

The men rose and started out the doorway. Glover halted them. "And Nikki, please go to Mr. Polmeroy's room and bring me his bag immediately."

Holden was numb. This had been his worst fear ever since EOC and DeNardo started to seize control of the project. Now it was happening. To make matters worse, Brady had been pulled into the middle of it.

Nikki and Norman hustled out the door. Holden, his face flushed, asked Glover and Kotuko-Sinclair, "Can we withstand this?"

"We have no choice," said Glover.

# 8. PROGRESSION

The centerpiece of the biosphere's environmental chamber was an eighty-five thousand gallon lagoon brimming with crystal clear waters of refined snow, warmed to a tropical eighty degrees. The waters were stocked with an array of tropical oddities including an electric eel, the world's largest freshwater fish, the arapaima, and a fruit eating fish called the tambaqui.

It was in the midst of this tranquil setting that Brady's slender frame plunged feet first. Sinking to the tank's bottom, she was aware of how terrifyingly dark her surroundings were. It was as if thick black curtains had been thrust over her eyes. She panicked momentarily, her throat constricting and her hands grasping for something to hold onto. Getting herself under control, she followed her wake to the still rippling surface.

She coughed out a mouth full of water and rubbed her eyes, jostling her contacts back into place. With a calm, even stroke she swam to the grassy shoreline, pulled herself to the trunk of one of the trees, and sat on a thick mat of rootlets. She pushed her black hair straight back off her forehead and out of her eyes. Physically she was okay, just a little winded.

Wringing water from her shirt, which clung to her yoga-toned physique like shrink-wrap, she pulled an elastic band from her jeans' pocket and slicked her hair back into a solitary ponytail. Her eyes, adjusting to the darkness, darted around the environment. The dome was frosted in snow. What had happened? An earthquake? Perhaps, she thought for the first time, an avalanche?

Leaning back, she looked up at the twisted metal of what was left of the catwalk dangling from the third-floor perch like an unattractive earring. Taking a deep breath of the stagnant air, she realized how close she had come to death. Up until that point she had been more confused than scared. Now the fear came at her from all angles. Dropping her head and cupping her fist, she reached for her Locksley cross. She needed its strength. But it was not there. Holden still had it.

She took a deep breath and cleared her mind.

Standing, she looked for any sign of DeNardo. "Mr. DeNardo! Mr. DeNardo!" she yelled. She heard a rustle from the foliage in front of her. Something moved towards her. Bending down, she snapped backward at the sight of a tiny face. The fuzzy marsupial's large eyes twinkled in the darkness. The creature approached. At first it was tentative before becoming comfortable enough to rub against Brady's legs. The animal had tiny ears, a short snout, a flat head, and three strong, curved claws.

"Hello little guy," she said, petting the three-toed sloth.

She heard more rustling from the other side of an incline, by the base of one of the trees. A voice yelled, "Hello."

"Yes… hello," she yelled, hurrying over the ridge. The confused sloth was left behind. Grasping at branches and vines as thick as her wrists, she pulled herself over the

embankment and down a rich slope of ferns, saplings and herbaceous plants. She found DeNardo lying on a large bed of snapped tree branches.

Pushing back a cluster of grass blades as sharp as Gillette razors, she was able to get a clear look at him. His grimacing face rested on his right shoulder, which corkscrewed in a wholly unnatural position. As if that wasn't grisly enough, his right leg was bent in the awkward manner normally reserved for old, abused G.I. Joe dolls. A bloody gash in his left shin was punctuated by a shard of white bone protruding. The pain had to be excruciating.

"Can you move, Mr. DeNardo?" she said, kneeling at his side.

"No… pretty banged up."

There was nothing she could do for him. He needed the help of a doctor. She had to contact the others, but how? "Mr. DeNardo," she said. "Are there facilities on this level? Anywhere with communications devices?"

He raised his right hand and pointed to the far end of the environmental chamber, about two hundred yards away. "Over there… against the far end… by the animal paddocks. An office… a phone." He started to say something else, but his words trailed off. He was in too much pain.

She stood and eyeballed the rolling terrain, which dissolved into darkness. As she did, he grabbed her arm and pulled her close. He placed his right hand in his pocket and pulled out a set of keys with a small penlight connected. "Take this," he said, placing the keys in Brady's hands.

She clicked the penlight. Its focused, concentrated halogen beam bathed everything within ten feet in a crisp light. In the branches before her, she was stunned to see an indigo macaw. Its large, inquisitive eyes stared at her. The

bird, standing about three feet high, looked her eyeball to eyeball, while its massive beak and dexterous feet manipulated and opened a licuri palm nut. Until now her sense of hearing had painted the picture: the buzz-saw whine of cicadas, the clicking and chittering of numberless insects, the dull rumble of water. But sight restored, the depth of her new world sunk in.

"Hurry, Mrs. Ryan," DeNardo wheezed. "This environment… unsuitable for humans."

The words had barely left his lips when she heard the terrifying rolling rumble of the black cougar.

Holden sat with Glover and the two Poles at the wooden conference table rooted in the middle of the control room. He scribbled random thoughts on a yellow legal pad as their predicament was clearly laid out. Arctowski Station had never been hit by an avalanche of any significance, at least as far back as Norman and Nikki could remember. Although the cause hadn't been established for certain, it didn't take Norman long to postulate a theory. The early season storm had dumped a tremendous amount of new powder in a very short period of time on a snowcap still soft and unstable from summer. The result: a violent reaction from the mountain.

"Is it even possible for an avalanche to cause the type of damage we're talking about?" said Holden, shading with his Sharpie the capital "A" in the word "Avalanche" that he'd nervously scribbled.

"Very possible," responded Glover. "Avalanches can be just as destructive, just as deadly as earthquakes. I recall reading of one in Peru several years back that killed over

three thousand villagers and sent two trains plummeting into a gorge. They're not to be messed with."

Despite the ever-present possibility of such a disaster—there had once been a protocol designed for just such a catastrophe, although no one could place the whereabouts of the outdated manual—Holden was surprised how unprepared everyone was. Fortunately Norman took charge of the situation. He reigned in the chaos with the encyclopedic knowledge of the facility he had helped manage for nearly two decades.

The clock on the wall read quarter to eight, and the room was already stale from Nikki's incessant smoking. Spread out before them were rolls of blueprints detailing the structure's architectural designs. More importantly, the egress contingencies for each pod were clearly marked.

"The utilities shed is here," said Norman. His crooked index finger pinpointed the location. "It's at the base of Jardine's Peak, where the drifts are thickest and natural challenges most daunting." He dropped his finger, running it down the blueprint until it stopped on another structure, the largest on the map, about a tenth of a mile from the dormitory. "This is the biosphere," he said.

"With the current weather, and now darkness, it'll be impossible to mount an effective rescue operation tonight." His eyes made contact with everyone around the table. He was sending a none too subtle message. Reason—not emotion—would govern the coordination of this rescue effort. Norman continued, "Polmeroy and Pig sound okay. They have heat, they have shelter—they should be able to wait it out until first light.

"The biosphere is trickier. Due to the fears of the animals escaping, the pod was designed for limited access—the main artery is the tunnel that's collapsed. The

second access point is a tiny corridor leading from the third floor observation level—ground level—to the physical plant."

Norman paused and sipped from a cup of coffee, emblazoned with some Polish phrase Holden could not translate. Norman's face puckered at the bitter taste. "Nikki, cream," he said. His piercing falcon eyes directed his brother to the tiny office refrigerator, where the younger grabbed his brother a half-empty bottle of cream. Holden was impressed by the ease in which Norman had taken command of a room loaded with type-A personalities. His brother, in awe of his older sibling, responded like a buck private answering to a seasoned field commander.

Norman emptied the cream into his coffee. "The tunnel leading to the physical plant is partially collapsed. It's possible to begin digging there and see if we can make our way through. If successful, we can assess the condition of this ancillary artery leading to the biosphere."

"Can't we reach the physical plant from top side?" said Holden. "That'd eliminate an entire step."

Norman shook his head. "Not possible. In all likelihood, we'd have to dig through the drifts in order to access the doorway. To attempt such an objective in this weather and in dark is foolhardy. This is our best option."

"How many men will you need, Norman?" asked Glover.

"Nikki and I will lead. Mr. Templeton has agreed to assist and will bring two of his workers. If we can recruit another two or three of your team, Dr. Glover and Dr. Ryan, that should get us started."

"You got it," said Glover.

"I can help," said Holden.

"Dr. Ryan, we'll need someone to man the internal CommLink," Norman said. "Just in case Polmeroy or Pig need updates. And don't forget there is a CommLink in the biosphere. If your wife finds it, she'll be able to communicate with us."

Norman glanced at Glover. Holden guessed the two had discussed directing him to some simpler task; afraid the stress of the situation might be wearing on him. Again he felt he should be showing leadership, but wasn't. He glanced at the legal pad and saw that he'd scribbled the word "control" with a pair of abrupt lines under it. Looking at Glover and Norman, he understood what his subconscious was telling him. He'd lost control.

It took nearly an hour to re-route power from the SBPG's and fully power-up Laboratory A. The sterile environment hummed to life with few signs of damage. Kotuko-Sinclair and Glover stood at the head of the stainless steel lab table. Their team of young scientists lined one side. EOC technicians lined the other.

Demry Sanderson, the thirty-two year-old assistant professor of chemistry at Purdue, took a seat in one of the elevated, darkly covered static dissipative chairs. Her feet dangled against the polished aluminum legs like a child's from a high chair. She looked across at the EOC technicians, each sweating. Their faces were a mixture of horror and anguish. She was not exactly sure what was going on, but judging by their expressions, it was not good. As they cleared the decontamination protocol, there were rumors of minor contamination issues. Looking at the faces of the EOC techs she realized whatever the problem was, it was not minor.

Glover pulled out an inch-thick stack of detailed three-dimensional ribbon schematics and, with a cold thud, dropped them on the table. They were the molecular renderings of EOC's weaponized nanomachines that Glover found, as promised, in Polmeroy's bag, along with his U.S. passport and USAMRIID photo identification and adjoining Central Intelligence clearance code.

Raji Rancoor, the lead EOC technician, matched Glover's offering. He dropped his own overflowing black binder. The tab of this binder read, "Gray Goo Protocol."

"Okay," said Kotuko-Sinclair. "We have a potentially catastrophic problem and very little time to correct it. See that clock," she said, pointing to the simple black-handed wall clock. "It's 2300 hundred hours. By first dawn we need this problem solved. So I need you to pull from within the very best you have to offer. What you are about to find out is there's an entire world depending on us. It's time to put your sharp little minds to work."

Brady had always taken pride in defeating her fears; in using her at times overpowering willpower as fuel to fight the gnawing feelings of self-doubt that she had never quite been able to chase away. As a child, math was one of her first great foes. She would sit in Mrs. Hopkins' third-grade class praying not to be called on to solve the arithmetic problem detailed on the classroom's chalkboard like a particularly sinister form of Egyptian hieroglyphics. But with hours of hard work and determination she became strong enough in math to earn a minor in the subject while an undergraduate at Georgetown University. Public speaking was also a tortuous adolescent and early-adulthood fear, but she overcame that obstacle as well,

finding herself thrust into countless public speaking roles on behalf of her clients, including an address to diplomats from over sixty countries at the White House.

But if there was one fear she had yet to conquer, it was of the dark. Her father teased her relentlessly about this particular phobia, hoping to expose its utterly irrational characteristics to her very rational, albeit youthful, mind. A month after her thirteenth birthday, she decided to show her dad that she had conquered the fear once and for all. Her plan was simple: she would spend the night camped in the backyard of their Oak Brook, Illinois home. If she accomplished her goals, her dad agreed to take her to see the team she loved most and he hated most, the Chicago Cubs at Wrigley Field. If she failed, she would be forced to endure her most hated team and his most beloved, the Chicago White Sox.

As she still did with most everything, she planned the stunt meticulously. She erected her father's camping tent, filled her mom's Tupperware containers with leftover KFC chicken legs, mashed potatoes, and of course her absolute favorite, angel food cake. She even prepared two separate Thermoses, one with Sprite for early evening hours, and a separate filled with hot chocolate for those sometimes-chilly early June nights.

She never made it to the second Thermos, however. Sometime between dusk and dawn, the actual time varying depending on whether she herself, her mother or her younger sister, Sarah, told the story, she ran crying into her parents' room complaining of the mountain lion who had scuttled her camp and laid waste to the KFC. When her father investigated, however, all he found was a tenacious raccoon snacking on a bag of Cheetos.

Two weeks later, she found herself in Comiskey Park watching the White Sox and to her, the most damning thing about baseball, the American League's designated hitter. Her dad teased Brady endlessly about the incident, but to show his pride in her for trying, he presented her a small gift at the game, the Locksley cross.

"This cross was given to Robin Hood by a Franciscan friar," he told her. "Legend has it, if you're lost and in darkness, the stone in the middle illuminates and leads you home." It was just the type of cheesy thing her father would say. It also was just the type of cheesy thing that always made her feel better.

The memory brought a smile to her face as she traipsed through the dark nether world of jungle rot in which she now found herself. Waving the pen light toward the dome, she found herself enclosed by dense trees, vines and fungus. She tried to understand it all; to see—how Holden often pushed her to—the natural pattern and how it all made sense. For every tree, she noted, there was a clinging vine, presumably fighting for nurturing light, riding piggyback with lianas on the trees to the top of the rainforest's canopy. One species spiraled around its host like a corkscrew; another cemented itself to a tree with three-pronged tendrils.

It was as if she had wandered into a vast vaulted natural cathedral, mysterious and silent. Its dark nave was alive. Enormous mopho butterflies floated by the ray of her flashlight, their bodies illuminated like bright neon signs. To her right she heard rustling.

Shining her light, she uncovered what looked like a vine moving. On closer inspection she saw a brilliantly costumed tree python, so green it was almost iridescent. Its

body draped in sensuous coils on a branch. A chill raced up her spine.

She was overcome with the desire to run out of this giant backyard as fast as her legs could carry her and dart to the safety of her parent's room. But no such option existed. She trudged on, trying to remain as quiet and inconspicuous as possible.

She blew on her hands. Her body temperature was dropping. She could not tell if that was a result of her still soaking clothes or a drop in the chamber's temperature? Passing a patch of scrubby undergrowth, she picked up the pace. The memory of the enigmatic black cougar was never far from mind.

A large grove of hanging vines hid the most beautiful sight she had ever seen: a brown brick wall. She stepped from the foliage, and leapt over a drainage trough. Concrete was under her feet. She followed the contours of the wall until she came across the glass windows of an office. Grabbing the doorknob, she twisted it and stepped in.

The area was similar to the station's control room; only it was obvious significantly more money was spent on the sophisticated computer systems. The technology operated the advanced climate modeling programs. These systems controlled everything about the environmental chamber, from the temperature and relative humidity to the rate, intensity and distribution of the rainfall and the light to dark cycle. She spanned the room with the penlight's beam, looking for the phone. A simple, uninspiring black box with a receiver resting atop it hung from the wall. She picked up the receiver. Before she could find where to dial, it rang… followed by a familiar voice.

A kinkajou is a furry, long-tailed mammal about two-feet in length with large brown eyes, pointed teeth and a long, thin tongue. With a coat of soft, brown-red fur, the kinkajou is also known for its extraordinary senses, being blessed with extra sensory glands near its mouth, throat and belly. Gahan, the biosphere's kinkajou (named by Templeton in honor of the lead singer of the techno-pop group, Depeche Mode) waddled on its stumpy legs to the banks of the stream that led from the lagoon to the water processing facility just outside the pod.

Gahan's supple nostrils flexed as it sniffed the banks before leaning its head over to take a drink from the reservoir. Before it did, it stopped shy. Its nostrils twitched at a foreign smell permeating the water. Its large, brown eyes looked curiously into the normally crystal clear water where something was moving, something strange, something different, something menacing. The kinkajou took a step back and placed its five-toed paw into the water only to have the foreign substance thrust toward it. Gahan let out a growl and scampered off into the foliage.

The black cougar watched this strange sight, eyeballing the water, but seeing nothing. The beast dipped its massive head into the cascading waters and lapped it up with its long, pink muscular tongue. The feline never saw the anomaly dart toward it; the substance cutting through the concentric waves that drifted from the cougar, riding up its tongue and beginning its incubation in the beast's blood stream.

# STAGE THREE: ACUTE PHASE

: period in which disease is most severe and symptoms are most characteristic. Immune response activates.

# 9. SEIZURE

Control. Holden stared at the scribbled letters on the notepad and tapped a Styrofoam cup of freshly brewed coffee with the end of his Sharpie. In many ways the fight for control—both personally and professionally—had always been his single greatest motivator. Like so many of his surgeon friends, the quest for ultimate control was what originally drove him to the profession in the first place. The ability to manipulate life and death. His skill gave him control to do just that. How many people were born—would be born—simply because he had saved the lives of their mother or father? It was a staggering idea and staggering power for one man to wield. Every time he walked into an O.R., history was literally in his control. It was no wonder they said surgeons suffered from a God complex.

The project, he realized, had simply been his way of taking that God complex to its next logical extreme. It furthered his power to control and manipulate the world in mind-bending ways. He knew it was this view of the world that, as much as anything, was the root of his distrust for the church. To be a religious person, he always believed, was to give control to a higher power. He could never come to terms with why anyone would want to do that. The

notion, that some higher being somewhere was controlling his fate, his destiny, wasn't comforting to Holden. It was frightening. Those were things he wanted in his grasp. Nature had ordained man as the dominant species on earth and dating to the invention of fire, science had given mankind control over his domain. He couldn't understand why man had in return created a mythology that wanted—no, *demanded*—to take that control back. It didn't make sense. His colleagues were right. He was a control freak. Now he suffered from that most horrible of all fates: loss of control.

From the corner of his eye, Holden saw Templeton rush past the open control room doorway. He stopped and entered the room, a concerned look on his face. Holden knew what he looked like; he'd gotten a good look at himself in the bathroom mirror. It wasn't a pretty sight. His eyes had a distant glare. The normally soft bags underneath them looked like they weighed fifteen pounds each. His hair was swept back in nervously fingered rows. He was tired as hell, and he knew it was only going to get worse. The hours were going to crawl until they could get into a position to rescue Brady.

Templeton gave the door a tentative rap and entered. "Dr. Ryan, everything quite all right?"

Holden forced a smile. "Yeah, I'm all right. Reflecting, that's all. I haven't done such a bang-up job getting my marriage off to a fast start, wouldn't you agree?"

"Dr. Ryan, you're not religious, are you?" said Templeton. A sympathetic smile was offered.

The irony of the question was surprising. "No, not the slightest."

"Good, I always like to get that bit out of the way off the top. Bringing God into these things is very tiring," he

said, pulling a sterling silver flask from his back pocket and offering it.

The gesture caught Holden off guard. It ran contrary to the general consensus about Templeton, which was that he was rather cold and impersonal. He was a tall, powerfully built man, with a slightly hunched physique. He'd only been at Arctowski for little over a year, having been hired to care for the animals by the biosphere's operator, GenSci. Little was known about his background. He seemed to like it that way.

"Don't flagellate yourself, Dr. Ryan," he said.

"Please, call me Holden."

"All right, Holden. Take it from a man who's seen his way down the aisle four times, you haven't fallen too far behind the pitch." He took a shot from the flask and offered it to Holden. Accepting, he matched Templeton's shot twice, washing away the stale, lingering taste of the coffee.

"I think if I were her, I'd be questioning my decision to marry me," Holden said.

"That's because you love her. Trust me, she loves you, too."

The words brightened Holden. He could still turn this whole thing around. With a little luck, it was still possible to regain control of the situation.

They were startled by the shrill buzz of the CommLink. He yanked the receiver to his ear. With a sigh and a few tears, Holden said, "Braid, you okay?"

Tears streamed down Brady's face at the sound of her husband's voice.

"Yes, fine," she said.

"You're not injured?"

"No. Completely drenched, but… good."

She described her harrowing plunge from the catwalk and all that had since transpired. He in turn told her about the avalanche, about Pig and Polmeroy's predicament, and about the damage to the station.

Describing DeNardo's injuries in great detail, she said, "He needs medical treatment, Holden. He looks like hell and must be in a great deal of pain."

"Is the wound bleeding?"

"Yes, but not horribly. I'm more concerned about internal damage."

Holden paused. He couldn't concentrate on DeNardo at the moment. "Look honey, I'm sorry about earlier today."

As miracles went, hearing Holden admit he was wrong didn't rank up there with the parting of the Red Sea, but it came close. She closed her eyes and sighed. It was all going to be all right. "I know; I'm sorry too. Let's not worry about it right now. We'll have plenty of time later to make it up to each other. Let's just worry about getting home."

"Fair enough. Norman and Nikki have stitched together a rescue team, which is trying to get into the biosphere through an ancillary tunnel. They're working very hard to get to you, Braid, but it may take time. You might have to hang tough through the night."

"Through the night," was not the answer she was looking for, but if she had to, she had to. "I don't know about DeNardo. I don't know if he can wait."

"Hold a second," he said. She heard him consult with someone in the background. She noticed an undisturbed six-pack of Evian on the credenza. Stretching, she pulled one of the plastic bottles free and tearing off the top, took

three successive gulps. She was feeling strange, as if she was coming down with the flu. The temperature in the room was still falling, she could sense that, but she didn't feel cold anymore. Her body temperature was rising as if she was starting to run a fever.

"Okay, honey, sorry about that," Holden said. "I have Mr. Templeton here. He's going to walk us through the office you're in and get you some supplies. Okay?"

"Sure."

"I'm going to get you through this, Braid. Promise."

A ductile iron water pipe clogged the tunnel leading from the rotunda to the physical plant. The rescue team's efforts were brought to a sudden halt. Eyeballing the piece of industrial piping through the polycarbonate lens of his face shield, Nikki twisted the handle of his welding gun. A concentrated flame popped from its copper nozzle. He glanced back at Norman, who stood vigil over the beat-up portable generator that looked like a lawnmower engine. "This'll take time," he said in Polish.

"How long?"

"An hour, perhaps more." The damage to the tunnel system was worse than Norman guessed. He began to doubt the eventual functioning stability of the station. If the other pods were as severely banged up, they could be in major trouble—especially if the physical plant was worse than the control room's electronic readouts had led them to believe. The SBPG's had a life of less than twenty-four hours before recharging was necessary. Without a power source to replenish it, the back up generators would die. The chilling facts were, with no power to generate heat, with no communications ability to radio for help, and with the

intensity of the storm raging outside, the lives of everyone in the station would be in severe jeopardy.

He turned to the platoon of scientists who had spent the last hour clearing hundreds of pounds of concrete, drywall and brick. They were sweaty and disheveled. It wasn't exactly the type of crowd used to strenuous manual labor. Reverting back to English, he said, "Get rest. Get food. It'll be a long night, and this may be your last chance for either. Be back in forty-five minutes."

The group dispersed. Norman refocused on Nikki and the painstaking process at hand. The small flame sparked against the pipe's polyethylene encasement. Nikki needed to cut through this outer coating just to get to the ductile iron. Once through that layer, he would still be faced with using a hacksaw to cut through the cement and mortar lining in order to finish the job. It was a bitch with the simple tools they had handy. But if they could do it, if they could forge an opening in the wall of debris, they had a shot at making it to the physical plant tonight. And that was important. Time was not on their side.

The biosphere's office provided Brady just the needed supplies: a fully charged walkie-talkie, wool blanket, blue windbreaker, and a U.S. Army first aid kit. Dead batteries in the office flashlight were the only setback. Fortunately, she still had the penlight. Templeton directed her to a key in the top drawer of the office's desk and then led her to a secure cabinet. Stored there was a rack of multipurpose CO2 powered injection rifles.

"The rifles have a range of about sixty meters and are loaded with darts filled with fast acting neurotoxins which will put the animals to sleep immediately," Templeton said.

"Not that you'll need them. From what you've described, it sounds like the cougar's food was released on schedule, so I doubt you should have much trouble with him. As long as he's not hungry, he'll mostly stay away from humans."

Jogging back through the environmental chamber, she knelt next to DeNardo. "Let me make you more comfortable?" she said, giving him a sip of Evian, and wrapping his torso with the blanket.

Walkie-talkie in hand, she described the scene. Holden suggested a quick diagnosis before they administered anything for the pain. He walked her through a very inexact exam. She asked DeNardo if he had lost consciousness, had feelings of dizziness or any kind of headache. He shook his head. She checked his eyes. They were not bloodshot.

"Good," said Holden. "Doesn't sound like a concussion."

She then checked for head trauma: no clear or bloody fluid leaking from his nose or ears; pulse normal; no bleeding from his scalp or head. She checked for signs of shock: no blotchy or bluish skin around the mouth and lips, no paleness, no sweaty, cool skin. He felt warm, but Holden said that was to be expected. She then described the visible injuries the best she could.

"A thorough exam it isn't," he said. "But we've eliminated a lot of bad stuff. From what you've described it sounds like a broken femur and clavicle. Go ahead and give him the morphine stick now."

The first aid kit included a small dosage of morphine. She administered it in his thigh. The shot rendered the already groggy DeNardo nearly comatose. "That really knocked him out," Brady said.

"That's okay," Holden said. "That's what it's supposed to do."

Per his instructions, she took the crimson first aid kit case and slid it under his injured leg. By elevating it, the bleeding slowed. Holding the penlight in her mouth, she took the scissors from the kit. Slicing through his khaki pants, she removed the material from around the wound. It was a nasty, bloody gash. The sight of the exposed bone made her stomach churn. She first cleaned the area around the injury with towels dampened in the lagoon, and then reached into the kit and took a field dressing. Removing its wrapper, she grasped the bandage by its tails with both hands. Careful not to touch its sterile side, she pulled it over the wound. The dressing's tails stretched around the leg. She tied them together, careful not to secure the knot over the injured area.

"That won't fix anything," Holden said. "But at least it'll keep the wounds clean until I get a chance to examine it. Sounds like we have a whole new set of worries, though."

"Like what?"

"Like how to get him out of there. The only way to exit is from the third floor. Unless we get the power going, the biosphere's lift isn't going to work. That means pulling him up, which in his condition is pretty delicate."

After tending to DeNardo, Brady sat down for the first time since the ordeal began. She hadn't realized how tired she was. She cracked open another bottle of Evian and sipped it. Blowing on her hands again, she realized how cold she felt on the outside. Yet on the inside, she was burning up. Running her hand over her forehead, she felt drops of sweat sliding from under her scalp line. She was running a fever. Keeping herself warm before the

plummeting temperatures worsened her condition was a priority. Zipping the windbreaker up, she reached into the coat's pocket and felt a butane lighter.

"How's the temperature?" Holden asked, as if reading her mind. He had kept a constant conversation with her. She felt like a flight attendant trying to land a 747 with ground control attempting to keep her talking to keep her calm.

"Chilly," she said. "I'm going to gather some wood to build a fire."

The walkie-talkie's frequency popped. She heard Polmeroy's voice. He and Pig had alternated helping Holden keep Brady company, sharing their plight with her so she didn't feel she was the only one in a less than perfect situation.

"Brady, would you mind starting a fire for us, too?" Polmeroy said.

Brady still had not been apprised of Polmeroy's true identity or the immediate danger the station was in. This was starting to become awkward for all involved, but Holden was adamant he didn't want to worry her until he had to.

"Start your own fire, Bindu. You're the one with the space heater."

"Yeah, but you're not rooming with Pig, so that makes us even."

She laughed, clicked off the frequency and started gathering as much wood as possible into a pile near DeNardo. Luckily for her—not so lucky for him—when DeNardo fell, he snapped a slew of branches on his way to the ground. She walked around picking them up, building her bonfire.

A low moan echoed from beyond a tree. Brady stopped. She heard it again. It was the sound of something in pain. She flashed the penlight in the direction of the tree and craned her neck to see the black cougar lying on its side. She reached for the rifle, which was slung across her back as if she were Davey Crockett, and took firm hold of its pistol grip and fore grip. She was not an expert marksman, but after hunting trips with her father and brother, she was no novice either.

She approached the animal, mindful not to appear threatening. Up close the cougar looked to be about eight or nine feet in length and probably two hundred or more pounds. The beast was in pain. Its large amber eyes rolled towards her as if to ask for help.

The stench was overwhelming. The animal's powerfully destructive jaw was flaccid, a stream of foaming bile passed through its long, sharp teeth. Vomit crusted its face. The regurgitation was both black and red; a stew of tarry granules mixed with fresh arterial blood. Its heavy tail lay in a mess of runny, bloody excrement.

Brady leaned over and gently put her hand on the poor animal, near its massive haunch. She rubbed its black fur. "Good kitty," she said, seeing a tear rolling from its ping-pong ball sized eye.

She noticed something very strange. An eerie silence had fallen over the entire environmental chamber. The constant rustling of the marsupials, the chattering of monkeys, the fluttering of birds, the buzzing of insects—the entire wall of sound was silent.

She snatched the walkie-talkie and said, "Holden, there is something very bizarre going on."

It was a few minutes before midnight and Polmeroy sat warming his hands over the space heater and worrying. If the Petri dishes contained what he feared, and if the accident at skunkworks had in fact set in motion this syndrome, then time was truly of the essence. As if that wasn't bothersome enough, he didn't know if anyone had given serious consideration to the type of enemy they were up against. Through his joint work with USAMRIID over the past two years, he had become familiar with biological warfare, twice thwarting bioterrorism attacks on U.S. shores. But unlike anthrax or smallpox, this syndrome offered a very new and disturbing dimension. The fight was not against a mere simple-celled deadly virus, but one equipped with state-of-the-art artificial intelligence. The nanocomputers would not only attack, but theoretically, they would have the ability to plan, think and attack. If that weren't scary enough, they would also have the ability to retreat, regroup and re-launch. They would learn from mistakes and those of their enemies, seeking out weaknesses and exploiting them. And they could accomplish all this before anyone even knew there was a problem.

Mixed with these fears was a growing frustration over his current predicament. Never before had he found himself in the midst of such a crisis, only to be rendered totally helpless. He knew Glover's team of scientists was working hard to develop a defense protocol, and in the lock down environment, without any external communications, it was impossible for him to contact Langley, USAMRIID and the CDC and warn them of the crises.

And what about the military? It had to have time to develop contingencies to potentially eradicate the syndrome, perhaps by nuclear means, before it could spread

and reap its ultimate destruction. He and Tiernan had discussed that scenario in depth before he left.

Trapped in the shed, and with DeNardo's injuries, he could not even interrogate the EOC boss to see exactly whom he had contacted about purchasing these rogue cultures, and if, God forbid, any such transactions had already taken place. Intelligence at Berlin Station had intercepted several conversations regarding a possible EOC auction. Further details had been elusive. It was Polmeroy's guess that the interested party may be a splinter group from Chechnya, but he had little to base that on. Someone was interested, though. The incident on the ship had proven that beyond doubt. At present all he could do, though, was speculate and monitor his walkie-talkie. His years of training and experience had been emasculated by the storm.

"You all right, dude?" Pig asked.

"Yeah, fine," he said, mouth dry and pasty. He stood and walked away from the warmth of the space heater. Beneath his parka, his shirt was thick with sweat.

"So, how long you been a secret agent?" Pig took Polmeroy's spot in front of the space heater.

"A while," said Polmeroy, unzipping his parka.

"Bet you get all sort of women; just like in the movies."

"Not me. I'm engaged."

"Bet your fiancée thinks it's slammin' having her own *secret agent man*?"

"We don't exactly call ourselves secret agents anymore—that went out with the Kennedy administration, I think. My official title is operations officer."

"That's not as dope."

"I'll mention that to the director if and when we get out of here. To answer your question, my fiancée isn't crazy

about my current profession. She'd prefer something a bit more regular."

"Women… the same even if you're a world class secret agent."

Polmeroy smiled. What he omitted was that although his fiancée may have disliked his career path, he had learned to positively hate it. He'd logged twelve years in "The Company". Twelve years of covert ops in a never-ending struggle against drugs, thugs and bugs (the cyber and biological varieties). And had he made the world a better place? Perhaps, marginally. But there had been a lot of compromise along the way. One week he was on the trail of a drug lord, only to find himself aiding the same bastard the next. He had come to learn he was not James Bond. There was no SPECTRE. It was all much murkier than that.

Now here he was, thirty-six and dinged up, not physically but mentally. He had tired of lying; tired of disinformation, tired of viewing people as "assets." He was tired of watching those assets die, sometimes by his own hand. It was time to settle down. Time to get started with a bit more of a sane existence; something his current lifestyle made all but impossible.

That was why before leaving on this assignment he presented the agency's director with a letter of resignation, effective at the end of the calendar year, a little more than eight months away. The director scoffed at the letter, saying there was no way Polmeroy would ever leave the service. It was in his blood. Just like it was with all the good ones. For Polmeroy, though, there was no doubt. He was in the home stretch. His intelligence career was winding down.

"You know, I'd never have pegged you CIA, dude," said Pig. "With those Bob Marley dreads, I guessed you were some sort of freaky drugged-out stoner."

"How 'bout this: I went to Annapolis and I vote Republican."

"Damn, you know you've been in Antarctica too long when you look up and Republicans have dreadlocks. Me, I'm just a kid from P-burgh, who decided to move south for the warm weather. No one told me if you went far enough south, you'd freeze your balls off."

Polmeroy laughed. He wouldn't want to drive across the United States with Pig, but he was a pretty amusing diversion. He decided to have a little fun. To blow Pig's mind a bit. They weren't going anywhere for a while, so why not? The toy was still new. He needed practice anyway. During his three-day training session back at Langley he hadn't come close to mastering it. "So you want to see a *secret agent* gadget, ace?"

"Hell, yeah," said Pig.

Polmeroy unclipped the shiny metal bracelet attached to his wrist. The bracelet looked like a single piece of steel coil with clamps on either end. Not the most attractive piece of jewelry, but its industrial look fit right in with the underground style of the day. "This is what we call a SmartWhip," Polmeroy said. Digging in his pocket, he pulled out what looked like a small, electronic car door opener. He held it up. "This little gizmo is the SmartWhip operator."

Polmeroy punched a button on the operator and a small light on the end of one of the SmartWhip's clamps glowed green. As if un-spooling, the coils on the SmartWhip unwound until the bracelet was a single strand of steel wire

maybe four or five feet long. “Pretty cool, huh,” said Polmeroy, waving the coil around. It moved fluidly.

“Hell, yeah.” Pig’s eyes were as large as saucers. “What’s it for?”

“A new way for us to stop the bad guys without shooting them. Easier for us to capture them this way—you know to extract information and the like. Let me show you.”

As if wielding a bullwhip, he cracked the steel strand a couple of times, evening the wire out. He then slung it towards one of the steel beams anchoring the corners of the shed. As he did, he snapped his wrist like a pitcher throwing a curve ball. With a hiss, the SmartWhip hugged the beam’s base. Polmeroy ran his thumb over a small rotating wheel embedded in the SmartWhip operator. The whip tightened around the beam. He continued to turn the wheel until the whip was taut. Walking toward the beam, he noticed that it was wrapped so tightly that it was beginning to cut through the steel. He tried to act nonchalant, hiding from Pig the fact that he too considered it pretty cool.

“Kick ass,” said Pig, his jaw dropping.

“I can tighten this thing as tight as it needs to be, depending on how uncooperative the enemy is. Believe me, if I make this thing tight enough, they’ll do whatever I say.”

Polmeroy walked over to the beam, loosened the whip and downsized the SmartWhip to fit back onto his wrist. Just then the walkie-talkie popped.

Brady’s voice was a whisper. “Holden, something very bizarre is happening.”

Both Polmeroy and Pig stopped and listened.

“What’s happening?” Holden responded.

Before Polmeroy could hear Brady's response, Pig said, "Dude, what's that?" He pointed towards an odd substance seeping onto the floor around the steel beam. Polmeroy stared at the tiny puddle. He couldn't quite describe what he was saw. It was not a tangible substance; at least not something that looked as if it could be held. It looked like… well, air, for lack of a better description. But air somehow visible, somehow slinky in its movements, hypnotic in its motions. It was as if his eyes were blurring, but only when looking in that small area. Everywhere else was in focus.

"Freaky, dude," Pig said. He stepped forward as if to touch it.

"Don't." Polmeroy held him back. He grabbed the walkie-talkie and called back to the station. "Holden, pal, I don't think we can wait till morning to get outta here. We have a major problem."

# 10. METAPLASIA

It was shortly after midnight when Brady's transmission was received. Holden immediately knew something was wrong. In the brief period since they had last spoken she had gone from calm and together to nervous and spooked.

"Holden, something very bizarre is happening," she said in a hushed tone.

"What's up?" he asked, sitting in the control room, a half full Styrofoam cup of coffee his only companion. He had been up over twenty hours straight and had not eaten since breakfast. His stomach was becoming acidic, one of the first signs of fatigue he remembered from his medical school residency. Back then he could work thirty-six or forty-eight hour shifts with no problems. He'd gotten soft. Even though he knew it wasn't helping, he continued to swill the coffee. "Tell me exactly what is going on, Brady."

"I'm not sure. The animals, they're silent. *Everything* is silent."

"Silent? What do you mean, silent?"

"I mean dead quiet. Not a peep. Not from the birds. Not from the animals. Not from the bugs. It's as if someone hit a gigantic mute button. It's eerie as all hell."

"Maybe they're asleep. It's after midnight."

"Are you suggesting there's a curfew? I don't think so. It's more than just the silence, though. The animals have completely disappeared. It's like they've evaporated in the brush. All except for the black cougar, that is. I'm standing over him right now, and this is even more bizarre. He's lying on his side, bleeding out of every opening, and wailing like he's about to die, which I'm getting the feeling he is. I mean, it's terrible, Holden."

"Are you crazy, Brady?" he snapped, slamming the coffee down. It splashed all over the counter. "Keep away from that cougar, it's a dangerous animal. If it's sick, who knows what it's carrying. Please, back away."

Before he could say anything else, the clicking of the walkie-talkie interrupted. Polmeroy was on the line. "Holden, pal, I don't think we can wait till morning to get out of here. We have a major problem."

"Jesus, what now?" said Holden.

"We have a foreign substance in the shed. I think it's from the accident."

"What?" asked Brady, still on the frequency.

"Are you sure? It's nothing else, an oil leak, some sort of condenser fluid?" Holden asked, nervously pushing his hair back off his forehead.

"Trust me, no. It's the most extraordinary phenomenon I've ever seen."

"Holden, what's going on?" Brady asked.

Holden hesitated. He realized it was pointless to continue to keep Brady in the dark. She would just have to deal with the potential crisis like everyone else. "We believe EOC Labs has smuggled rogue cultures into the facility, more advanced than the ones we've been working with; possibly weaponized for mass destruction. The storm has caused an accident that may or may not have

compromised these specimens and possibly—and I stress that word because we don't know anything for certain right now—caused an infectious outbreak."

"This is that gray goo thing you were talking about earlier?"

"Possibly."

"Jesus Christ, Holden, were you going to tell me?"

"I didn't want to alarm you until we knew something for certain. For all we know right now, there might not be any problem."

"Or there damn well might," she said, her voice sharp. Frustration reverberated through his handset. "Dammitt, why are we here, Holden? This is our honeymoon! We still have wedding presents to open and thank you cards to write. Tell me this isn't happening."

"Listen, Braid, now is not the time to lose control. You gotta stay with me here, hold it together. Staying strong is what will get us out of here. Okay?"

There was quiet on the headset. Holden knew she was hacked. He also knew she would gather herself. In a very measured tone, she said, "Don't worry about me. I always hold it together."

He paused, contemplating a necessary order of attack. His heart pounded. If Polmeroy was correct, then circumstances had taken a dramatic turn for the worse. If the utility shed was infected, where else might the infection have spread? Was what Brady described part of this phenomenon? This syndrome? He had to get her out of there. "This is what we're doing guys. Brady, I want you to gather your stuff and go back to that biosphere office ASAP."

"But…"

"No buts. When you get there lock the doors. Bolt them. Weld them. Do whatever, just secure them until our team gets there. Okay?"

"Okay. But what about DeNardo?"

"Don't worry about him."

"I can't just leave him."

"Yes, you can."

"No, I can't."

"Brady, there is no way you can move a man of his size through that terrain. And with his injuries, there's no way he's going to be able to move himself. You're going to have to leave him and hope for the best."

"How can I do that?"

"Because he'd do the same. You're not up on all the facts, Braid."

"But…"

"I said no buts. Do this for me. Go to the office."

There was a pause. Brady said, "Okay."

"I love you. Now get going."

Holden took a quick hit of his coffee. It slid down his throat and fed his burning stomach. Gas on a fire. "Bindu, ya with me?"

"Yeah, ace. Tell us a plan."

"Let me radio Norman, and get an ETA."

"Sounds good. Keep in mind, we don't have much time."

Holden adjusted the knob on the top of his walkie-talkie to 5, the frequency the Pole was on. "Norman, this is Holden. You there?"

"Roger that, Dr. Ryan."

"We have a crisis. Can we split your team and begin digging out the utility shed? I realize the weather makes this difficult, but it's important."

Norman let out a weary growl. Holden heard him conversing with Nikki. Finally Norman said, "Yes, it can be done, but we have broken through a major area of debris and are making our way toward the physical plant. We could be to the biosphere within the hour. If we split it will significantly slow efforts."

This was the answer Holden feared. Did he fragment the rescue team and try to aid Bindu and Pig, two people he didn't even know seventy-two hours ago. Or did he concentrate the efforts and rescue Brady as quickly as possible? He felt as if he should be weighed the dilemma. He wasn't.

"No, don't split apart, Norman. Continue to the biosphere. I'll let Pig and Bindu know you'll come immediately after."

Brady did not feel comfortable with the decision. Deep down she knew Holden was probably right. Still, actually abandoning DeNardo in his condition in such an unstable environment was a tough call. She didn't like the bastard, but he was a human being.

She looked at the man who seemed so fearsome earlier. He was motionless, huddled and broken. Fearsome only to the fungus he crushed under his own weight. She felt his forehead. He was warm. He was running a fever. She pulled the blanket tightly around his neck, and took one of the bottles of Evian and left it by his side. She also left her walkie-talkie. Another could be found once she reached the office. This way, at least, she could communicate with him.

She turned to walk away, when the rustling of the foliage stopped her. It was the first sound in at least fifteen

minutes to break the silent pall. She flashed the penlight straight ahead. From the darkness the gentle, Muppet-faced kinkajou approached. The animal shook and whined not in a way suggesting illness, as was the case with the cougar, but in one suggesting terror. She knelt and ran her hand through the trembling creature's fur.

"What's wrong, little guy?" she said. The animal brushed against her, its bushy tail dragging along her thigh. "You okay?"

A quick, thrashing movement from beyond the tree startled her. She grabbed the rifle and hugged the tree's base, peering around it. Her eyes grew wide. The spot where the cougar had lain in the clutches of a painful and debilitating death not five minutes prior was now empty.

Polmeroy noticed Pig watching with a look of horror as the enigmatic substance crept into the shed. It inched its way up the steel girders and along the far wall's baseboard. Polmeroy sensed Pig was trying to put his finger on how to describe what he saw. He could almost read Pig's mind. Misty? Not quite. Metallic? Maybe. Molecular reorganization was happening before their very eyes. It defied description.

The walkie-talkie popped. Out blasted Holden's voice. "Bindu, bad news. Looks like the rescue team is at least two to three hours from being able to lend support; the conditions are just too intense."

"The conditions are pretty damn intense in here too, Holden," said Polmeroy. "In two or three hours we'll be chunky bits of marmalade."

Holden stammered, searching for words, before saying, "I'll keep working; see if we can't string something together sooner."

"Do what you must, Holden. Just please help."

Polmeroy's thumb slid off the talk button, and his hand fell by his side.

"What now?" Pig said.

"Fine question."

"Don't you have any other gadgets that can get us out of here. You know, a laser beam watch, or somethin'?"

Polmeroy ignored Pig. For at least the tenth time in the last hour, he re-examined the shed. There had to be a solution. But what? They were in a small metal box buried in a snowdrift. There was only one exit, and that was through the metal door. The problem was the door opened inside out and the other side was completely sealed by snow. It was impossible to pry the door open even a micro-millimeter.

What he really needed was a little thermite powder, a frightening little substance that ignited into a violent white heat that could burn through concrete or steel in seconds. Unfortunately, TSD—The Company's Technical Services Division—hadn't stocked him with a supply for this go around. He knew he was going to have to get them out of this the old fashioned way. He was going to have to use his wits.

He walked the room and surveyed his surroundings like a championship golfer lining up a critical putt. This was not a new position for him. He understood his training, both physical and mental, could take long odds and reverse them. The Company had taught him two very important lessons: a) to win in conflict by using the maximum amount of force and inflicting the maximum amount of damage,

and b) to survive. To achieve the latter Polmeroy learned to think like an artist. He learned to use the creative side of his brain. There was always a way to survive. You just had to identify it.

"If we get through that door, we can probably tunnel out," Pig said. "There are a couple of shovels over there, and I've tunneled out of an avalanche before."

"So have I," said Polmeroy. "But how do we get the snow out from in front of the door?" He looked around at what they had to work with: a couple of shovels, a tiny space heater, walkie-talkies, a large electric generator, a pile of random cables. A whole lot of nothing, in other words. A stray cable caught his eye and triggered an outrageous idea. He had taken off his snow-covered gloves earlier and placed them in front of the heater. They now sat in a puddle of water.

"There's no way that'd work, would it?" he mumbled. Why not? The principles were sound. It just seemed so preposterous. If it actually worked he would have bragging rights for years back at Langley. He walked up and examined the doorway. The metal was frozen.

"You got an idea, don't you?" said Pig.

"Maybe. It's crazy, though."

"Hey, I do crazy, especially when I don't got options."

"Look in that pile," Polmeroy said, pointing to a heap of odd supplies stored behind the power generator. "Let's see what we've got. We just might get out of here."

Brady inched her way back through the environmental chamber towards the offices. The rifle was firm in her hand. Her index finger hung on its trigger. The kinkajou wandered beside her, its body slung low to the ground and

its fur blending into the reddish clay. If this walk was creepy before, the sudden silence and mysterious circumstances made it positively terrifying. Each footstep was placed with delicate precision as she tried in vein to move stealthily, frightened what might stir. There was no avoiding the crackling snap of a twig beneath her Reeboks or the rustling of a large thicket of brush as she pushed her way through it. Never before had she felt so helpless; so much a target.

Brady crept into the rainforest's cathedral. Leaves rustled just ahead. The kinkajou's ears perked. It began to bay mercilessly. The sound stunned Brady. She reached to quell the panicked animal, but it jerked free. Scurrying off, it evaporated into darkness. She wondered if she shouldn't follow. Perhaps the animal knew best. Her feet wouldn't move, though. They were locked, all communications with her brain suspended.

The noise deepened. She shined the penlight's beam towards the rocking groves. The black cougar poked its head from the weeds. The beast snarled and the light caught its large, amber eyes. They were utterly satanic. With slithery perfection, the animal revealed its long, taut, muscular body. There was no hint of ailment; no sign of distress. Its slick, black coat shimmered. It was a perfect specimen, an absolute tribute to God's divine power to create.

The cougar's harsh gaze forced its way upon her with an odd mixture of curiosity and unsettling inevitability. It was the ravaging look of a predator selecting its prey. Her body tensed, and the creature's eyes locked on her own. Looking deep into them, she witnessed something more fearsome than even its powerful, rippling body. Its eyes

were vacant. They held not even the faintest hint of life. It was as if the beast was soulless.

She glanced from the corner of her eyes at her escape options. She found few. To her left was brush. To her right were trees. Behind her was uneven terrain. Penlight in her bottom hand, she slowly raised the rifle and gazed through its viewfinder until the animal was centered in the crosshairs. She locked her aim on the broad region just below its right shoulder. The cougar did not move, unfazed by her action. Her index finger slid onto the rifle's trigger. Just as her father taught her, she squeezed the mechanism. With a hushed whistle, a red dart flew from the sixty-millimeter barrel and lodged dead on in the animal's sternum. The cougar was stunned. It glanced at the prickly wound, before letting loose a heart-stopping roar. Its large ivory fangs jumped from under its black skin. Its forehead shrunk into harsh Vs framing angry eyes.

Brady stepped back, her heart exploding in fear. With the animal's lightning quick first step, she dropped the rifle and vaulted her foot with two bounding strides onto one of the giant buttress roots of a samba tree. She leapt and grabbed hold of a low hanging branch, swinging herself to safety just out of the leaping cat's reach. In successive motions, she pulled herself from branch to branch and struggled to regain her composure. Lianas hung all around. She balanced herself on a pair, the thick, woody vines coiled like steel cable. She focused the light on the frustrated cougar, which leapt at her again and again.

Eyes on the beast, she couldn't believe what she saw. Like the cube morphing into the Nerf ball, the cougar's form shifted with uncontrollable fits and jerks. In moments it had transformed into a hulking, black gorilla with a shocking span of silver hair running the length of its back.

"What the holy…"

From under its massive supraorbital ridge, the gorilla's gaze shot towards her with sinister precision. It wrapped its robust body around the base of the tree and rocked violently. Brady's footing slipped, but she balanced herself on the lianas. Again it rocked the tree, the branches slashing about. It grabbed the tree's bark with its short, powerful legs and thrust itself towards her. With remarkable dexterity, the gorilla shot up the tree. Its sinister glare was firmly locked on her.

Before her mind could digest what was happening, the force of the gorilla's ascent caused her foot to slip. This time she could not balance herself. With a death grip on the lianas, she felt the sensation of flying as the vines carried her across the chamber in a controlled fall. With a jarring thud, she landed in a patch of scrubby undergrowth some thirty yards away. Looking up, she saw the gorilla poised in the tree. Its flailing muscular arms were the picture of anger and frustration.

For a moment it seemed she had escaped. Then it happened again. The gorilla's form violently quivered. It too began morphing. Within seconds the hairy primate had transformed into a thirty-foot anaconda, its body wrapped around the tree's branch. Brady lay perfectly still, hoping the reptile wouldn't notice her in the distance. The snake looked right at her. It thrust itself from the branch, landing in the brush just yards away. She scrambled to her feet, but tripped over a large rock and flopped on her backside. The snake was directly before her. Its green scales were dimpled with black oval patches and emitted a foul-smelling musk. Its jagged tongue bobbed in and out of a head that was at least a foot in diameter.

Brady knew she was cornered.

The snake coiled, poised for its deadly strike, but it was distracted by a noise from the brush. Unaware of the danger, the three-toed sloth wandered out. The tiny marsupial mesmerized the snake. With one violently perfect stroke of its tightly coiled frame, the snake sunk its teeth into the furry creature's skull and wrapped its body around it. The life was squeezed from the animal. Then with one astonishingly repulsive motion the snake swallowed the sloth whole; a thick lump bulged from the snake's body as the marsupial was slowly ingested.

Brady seized the opportunity. She rolled into a thicket of brush and crawled ahead until she reached the edge of the rainforest. Scrambling to her feet, she darted over the drainage trough and along the brown brick wall. Her eyes were fixed over her shoulder. Refocusing on what was before her, she came to a skidding halt and let out a scream that nearly shattered the glass panes of the biosphere's dome. The kinkajou stood at her feet, its body quivering with fright and its sad eyes gazing directly at her. She reached down, scooped up the helpless animal, and quickly turned into the office. The door slammed behind her.

Laying the kinkajou down, she moved the office's metal desk in front of the door. A pair of chairs was stacked on top for re-enforcement. She saw the row of walkie-talkies and grabbed a handset. As she adjusted the frequency knob, she couldn't believe her luck. The power outage had cut off the charger, and in turn sapped whatever power was stored in the devices. All seven handsets were dead. She turned and hurled the walkie-talkie against the far wall. Its black casing shattered and fired off in all directions. At least she still had the CommLink.

The kinkajou whined, perhaps even cried. Brady couldn't really tell. She felt bad for the creature, but at that

moment she just wanted the damn thing to shut up. She needed to concentrate. There was a way out of this. She just had to figure it out. She picked up the animal, and tried to quiet it. Its body pulsated with fear. The feeling was shared. Adrenaline poured through her veins. Holding the kinkajou in her left arm, she reached for the CommLink's receiver. A pounding on the office door stopped her cold.

Someone was on the other side.

# 11. SHOCK

Polmeroy knew they had one shot at pulling this off. How good that shot was, he didn't know. In the ten minutes since disconnecting the electric power generator—killing not only the shed's lighting but also its coveted space heater—the temperature had plummeted. The shed's gray metal walls showed signs of a dewy freeze. Polmeroy's face stung from the cold.

His gloved hand steadied his flashlight's beam over Pig, who pulled his pocketknife from his trousers. Extending the three-inch blade, he stripped away the protective black rubber coating on one of the two-inch thick electric cables they found sitting in a heap behind the generator. Pig peeled back the wire armor just beneath the coating as if it were a banana skin. Multiple strands of copper wire were exposed. He flared the ends and leaned into the guts of the generator, the top of which he had already propped open. Examining the two hundred and fifty-six cubic inch, spark-ignited engine, he found what he was looking for and connected the wires. He picked up another identical cable from the ground, stripped the rubber coating and repeated the procedure.

"Is this going to work?" asked Polmeroy, amazed by the dexterity of Pig's chubby fingers.

"Dunno. It's your idea. Let's make that real clear. I've done some crazy things, but…" He finished the procedure and Polmeroy handed him the other end of the cables. They had clamps attached, much like automobile jumper cables. Polmeroy's plan was simple, semi-logical and completely crazy. But as Polmeroy explained, "desperate times call for insanely stupid actions."

Their predicament was clear. They had to get through the shed's doors. If not they would die. At the rate the nanomachines were self-replicating, Polmeroy reasoned they had less than an hour. At that point they'd face a profound problem. But the only way to get through the door was to somehow remove the snow from behind it.

"We don't have to totally clear the area," Polmeroy said. "Just enough so we can squeeze past the door and fight our way through the drift."

Observing the space heater melt the snow from his gloves inspired Polmeroy's simple solution. They would try to melt enough snow from behind the doorway to loosen the snow pack and force open the door. The shed housed a forty-five thousand watt electric generator put in place to power the communications antennae and skunkworks. Using that as their electrical source, they would run connector cables from it to the shed's metal doors. Then, re-directing the generator's voltage, they would heat the door like a giant oven browning element until the snow on its other side melted.

"It'll be just like the rear-window defroster in a car the morning after a big ice storm. If it works, we got a shot. If it doesn't, we'll have tans deep enough to glow in the dark."

Once the cables were connected to the generator, Pig and Polmeroy attached them to the doorway. They

connected the large clamped ends to the only objects they were able to grip, the doorknob and hinges. Polmeroy flashed his light on the far wall, checking on the syndrome's advancement. The infected area had doubled, engulfing nearly the entire wall. The sight took on an even more haunting, ethereal quality in the cramped inky blackness.

It was scary as hell, but also strangely fascinating. Trying to describe it was like describing what a drug-addled brain saw after taking way too much LSD. You had to experience it to understand it. There was still a wall, but there wasn't a wall. The snow, which could almost be seen through the translucent substance, was still on the outside boundaries of the building, held back by this nebulous barrier.

If the physical properties of the syndrome were difficult for Polmeroy to fully comprehend, the way it was spreading was not. Instead of eating away at the wall in scattershot sections, spreading in all manner of directions, it was advancing against the wall's molecular structure in precisely measured, identically even, geometrically perfect rows. It built upon each completed area with the skillful craftsmanship of a peerless mason. He wasn't watching a random act of aggression. This attack was much more alarming. It was well planned and strategically executed by the advanced nanocomputers.

Uncertainty filled Polmeroy. Even if this trick with the generator worked and they freed themselves, had they really escaped? How was the syndrome spreading? Was the snow a carrier, allowing it to travel across the terrain, cannibalizing everything in its path? Was it airborne, roaming freely across the island, the continent, hell… the planet? If the latter was the case, then they were already

screwed whether they made it out or not. In all likelihood so was everyone else from Auckland to Anchorage.

In a morbid turn, he wondered, if infected, how precisely the engineered virus would exact its ultimate toll. Perhaps he would be ingested alive. His skin would be eaten from the outside, as if exposed to an exceptional demonic strain of Ebola. This would pave the way for his internal organs and bone structure to be ravaged.

Or perhaps the nanomachines would quietly and unobtrusively invade his bloodstream. Perhaps they already had. He'd be devoured from the inside out, the microscopic nanoassemblers turning his internal organs into a billion tiny silicon chips before he felt anything or realized what was happening. Scientists he'd talked to suggested the possibility of something like that happening was not as bizarre as it sounded. In this scenario, nanites would invade the body, replicating the host's tissues as raw materials until all traces of human tissues would have been eliminated and replaced with nanotech analogues. As they replaced brain tissue, they'd eventually take on a rudimentary self-awareness. Soon after they'd develop the most elementary characteristic of a living organism, a sense of self-preservation. A couple of young scientists from MIT—who'd been all but ostracized by their more mainstream peers for such fringe theories—even coined a name for this syndrome. They called these creatures TNCBs, short for Terrestrial Nanite Collective Beings.

After he secured the last clamp, Polmeroy looked at Pig and said, "We ready?"

"True that."

"When I throw the switch, we go to the middle of the room, and remember: *don't touch anything*. This whole rattrap is going to be alive with electrical current. It won't

carry across the concrete floor, but if we brush up against anything…"

"Like gittin' the chair."

Polmeroy hadn't thought about it in quite such a stark and simplistic way. It would be like the electric chair. Pig crouched in the middle of the room on all fours, like a sixth-grader practicing a tornado drill. Polmeroy stepped over to the generator and shined the flashlight on its side. A red rubber-tipped switch would start the juice flowing. He looked at Pig, and said, "Last words?"

"Nah, warden. Just tell 'em I had debts no honest man could pay."

"True that," Polmeroy said and tripped the switch.

Brady felt her entire body spasm. The sound of the rapping on the door became louder and louder. She laid the CommLink receiver down and stared at the barricade she'd built. A rescue crew would have been too much to ask for. They could not have broken through the rubble and found her so soon. It just didn't make any sense. Was there someone else trapped down there?

There was another rap on the door. She couldn't decide what to do. Should she risk it and see what was out there? Her instincts told her no.

"Mrs. Ryan, please open the door. Please."

Her heart skipped at least three beats. Could it be? The voice was unmistakable. She darted to the door, and pulled the desk back just far enough to peer through a crack in the doorway. On the other side was Stephen DeNardo. His vitreous eyes glared at her.

"Oh, my God. Mr. DeNardo, are you all right?" She pulled the chairs from atop the desk and slid the furniture

back. He squirmed through the opening. Once he did, she quickly reset the barricade, and faced him. He stood in the middle of the room, still as a statue. His face was impassive. She started to reach out to him, to help him, but something stopped her.

The little kinkajou wailed again, and Brady's eyes widened. She shined the light on the man. He didn't have a scratch on him. His shoulder looked fine. His leg bone was no longer exposed. The entire gash was neatly cleaned and healed. His clothes were still distressed, torn and bloody, but his body, his skin—it looked as if he had just strolled off a beach in Maui.

She played it cool, her facial muscles tightening. She learned early in her business career that it was okay to be afraid, *just not to show it*. She had to stay strong. Stay alert. Whatever was happening had gotten to DeNardo.

"Have a seat, Mr. DeNardo, you must be exhausted." She pointed to a chair behind him. The terrified kinkajou burrowed itself deep underneath the desk.

Reaching down, she grabbed her last bottle of water, and pulled off the cap, taking a prolonged sip. Her mouth was pasty. The ice-cold water shocked her tongue. It made her gag. Feeling her cheeks with the back of her hand, she could tell the fever had worsened. She felt awful. A constant buzz at the nape of her neck dizzied her. Glancing back at DeNardo, she had no idea what to do or what to say, fearful that a wrong word might lead him to transform into what? A fire-breathing dragon, perhaps?

DeNardo was still, perfectly stoic. Like the cougar, his eyes were vacant and sterile. He stared blankly at her with the flaccid expression of a eunuch. She felt as if she should get him talking, to gauge what was going on in his brain, if he still even had one. She could think of nothing, though.

The awkwardness of the moment was palpable. It was like the worst date she could ever imagine.

She started to say something, although she had no idea what was going to come out of her mouth. The shrill ring of the CommLink stopped her cold. "Please," she sighed under her breath, "let this be Holden."

Lying huddled next to each other on the cold, concrete floor, Pig and Polmeroy felt the electric current hiss and pop as it passed through the shed's corrugated metal siding and roofing. The frigid room heated rapidly as the electricity warmed the metal framing. It was as if they were in a toaster.

"I think it's working," Pig said.

"I think it is, too," Polmeroy responded.

When he threw the switch on the generator, firing up the machine's powerful pistons, the first shock of electricity hit the doorway's frozen frame with a series of nasty, crackling sparks. So fierce was the reaction, Polmeroy feared the room would be engulfed in flames. But once the current took hold in the metallic frame, the sparking halted and they were overcome with the unmistakable feeling of being surrounded by electricity. Polmeroy felt the hairs on his arms rise as the current passed overhead. His wool cap and gloves filled with static electricity.

Polmeroy didn't quite know what the electricity would do to the nanomachines, but he had hoped it would stunt their advancement; maybe even destroy them, frying their tiny circuitry like a massive power surge into an unprotected computer network. Instead it appeared the opposite was happening. Their multiplication accelerated.

The syndrome spread onto adjacent walls and crept onto the ceiling. If time was precious before, it was far more so now.

"Think it's been long enough?" said a suddenly impatient Pig. He had noticed the same thing Polmeroy had. His nerves showed.

"Give it another minute," said Polmeroy, still calm.

They waited. Polmeroy watched. The syndrome pulsated to the rhythms of the currents. Its density and size flexed with each new wave.

"Okay, let's do it," Polmeroy said after another minute. He stood, took two quick steps towards the generator and shut it down. The monotone humming went quiet. There was an overwhelming feeling of retreat as the energy was sucked backed into the copper cables.

Pig grabbed the shovels and approached the doorway. Polmeroy removed his parka and wrapped his hands in it before placing it against the door. The extreme heat radiated through the coat, and the air filled with the bitter stench of singed nylon.

"Jesus, it's like touching a red hot stove," he said.

"Let it cool," said Pig.

"We don't have that luxury. The snow on the other side will have time to refreeze."

Polmeroy placed the thick, insulated side of the coat against the door, and mustering every ounce of strength he had, drove his full weight into it. The door budged slightly. The melted slush oozed through the narrow opening. Pig leaned his oxlike frame behind Polmeroy and the two pushed harder and harder. Polmeroy's muscular thighs expanded until they seemed ready to burst. His arms were nearly crushed against the door. The outer nylon of the coat charred and the insulation burned. The smell was toxic.

With one last concentrated burst of energy, they opened a three-foot wide crack. Taking a shovel in hand like an oar, Polmeroy cleared away several feet of slush from the doorway.

They had been successful, but they were far from home free.

After twenty minutes of digging, Polmeroy rested his weary arms. The closer to the surface they drew, the more the tightly packed icy snow became like a sheet of impenetrable concrete. It was excruciatingly slow. They had covered little more than thirty yards, but Polmeroy knew they would need to continue to tread lightly if survival was in the cards. Before advancing they first had to carve out an air pocket ahead of them, allowing the sparse air to filter through. They tried not to speak, conserving every last lung full of oxygen. As they burrowed their way ahead, they packed the snow tightly around them, solidifying the tunnel. It was just as Polmeroy was taught a decade earlier during his six months of survival training at "The Farm," the CIA's training center at Camp Peary, Virginia.

He had used these skills once before, during a mission in the Swiss Alps six years before. In that instance he had actually been caught in the wave of rushing snow and debris as it stormed down the mountainside. As the snow engulfed his body, he was able to drop his heavy pack, making himself lighter, and literally swim to the crest of the drift, pulling himself from the snow before it settled. What they were experiencing now was far different, far more dangerous. Not only were they running short of oxygen and faced with brutally hard snow packs, but as he

glanced back at the long tunnel they had created, he was keenly aware that at any moment the precarious structure might easily topple. They'd be buried alive.

Gathering himself for his next assault on the drift, Polmeroy glanced at Pig and realized a new desperate twist to the situation. Pig's beard was white with icicles. The corners of his mouth showed the slightest hints of turning blue. Hypothermia, not nanomachines, was going to become their chief rival if they did not extricate themselves from this situation. Yet, strangely, he didn't feel that cold. His facial muscles were sore from the frigid temperatures, and he knew he should be freezing. Maybe it was because he'd done most of the digging, but he almost felt warm.

He thought it was the sweetest sound he ever heard. Through the drift came the muffled yells of human voices. Polmeroy and Pig responded. They cried out, pausing only to allow their stinging lungs to recover. They heard crunching, followed by the sounds of shovels picking away at the snow. The ice directly above Polmeroy was breached. He assisted several pairs of hands in clearing away the snow and carving an opening. Light flooded the crevice. A gloved hand forced its way into the air pocket, helping Polmeroy to the surface.

Emerging, Polmeroy was temporarily blinded by the bright headlights of several snowmobiles. The fresh air filled his lungs like acid. He coughed and crouched low to the ground, balancing himself with his right arm. Eyes re-adjusting, he noticed the snow had subsided, although the winds were still intense. They had made it out of an impossible situation. An even more daunting task now faced them.

The man who helped Polmeroy to the surface lifted his ski mask, and he was surprised to see Holden.

"If I were an obstetrician, I'd slap you on the ass," Holden said, as the others assisted Pig.

Before Polmeroy could thank him, Holden pointed to where skunkworks stood. The pod's structure was gone. The snow was gone. The earth was gone. In their stead was a murky sinkhole of nanomachines. The area was a breeding colony, which had expanded to the shed, up the base of Jardine's Peak and back towards the campus.

"It's out of control," Holden said. "We don't have much time."

"What's being done?" said Polmeroy. He took a canteen from Holden and guzzled down the water inside.

"The Glovers are working on it, but with mixed results."

Holden's walkie-talkie popped. "Dr. Ryan, sir."

He grabbed it. "Yes, Nikki?"

"We've established voice contact with your wife."

# 12. DELIRIUM

Brady never heard a sound so sweet as Nikki's raspy voice filtering through the CommLink. "When are you getting me out of here?" she asked. Cupping her hand over the receiver and her mouth, she shielded DeNardo from the details of the conversation. Her eyes slid to the corner of her narrowed sockets, stealing a quick glance at him. He stared straight ahead, his eyes large and unyielding.

"We're in the physical plant, Mrs. Ryan," Nikki said nearly drowned out by the sound of men moving and clanging objects in the background. "The tunnel leading to you is clear, so we're moving ourselves into position. However, you need to help us. It is not possible for us to reach your level of the biosphere. We'll go to the third-level platform, where the entry to the catwalk is. Understand?"

"Yes."

"We'll lower a rescue line to you from there. We'll meet you in ten… fifteen minutes, perhaps."

Brady pulled the receiver from her face and took a deep breath. She badly wanted to be rescued, but she just as badly did not want to be forced to venture into the environmental chamber again. She knew how lucky she was to survive last time. The vision of the giant anaconda

sizing her up was an image that would remain with her for as long as she lived. “I don’t know, Nikki.”

“No? Why?”

“It’s very dangerous out there—*very dangerous*,” she said. “There are things you can’t imagine; I’ve seen them and I still don’t believe them. Trust me, I’m not trying to make things difficult, I want to get out of here as soon as possible, but there must be a different route?”

She heard Nikki consult with someone in the background. As she waited, she kept a close watch on DeNardo. His eyes were fixed on her. She noticed the whites of his eyes had suddenly become webbed with tiny red bloodlines. He looked like he had a helluva hangover.

“Mrs. Ryan,” said a new voice. “It’s Templeton. Nikki expressed your concern, and there is another way to reach the rendezvous without re-entering the environmental chamber.”

Her eyes did not stray from DeNardo. His eyes had suddenly turned bright red. Her heart rate accelerated, and she glanced at the desk, looking for something sharp.

As she did so, Templeton described a stairwell just down the corridor from where she now stood. It led to a basement servicing the giant “lagoon tank.”

“There’s a metal pathway that leads around the tank,” he said. “If you follow it, it’ll eventually lead to the backside of the structure. There you’ll find a maintenance ladder. It’ll take you directly underneath where we’ll be waiting.”

“Oh—kay,” she said. The word slid from her mouth almost by accident. Her attention was totally focused on DeNardo. Blood trickled from his nostrils and ears.

“Mrs. Ryan? Mrs. Ryan?” Templeton said

"Yes, I'm here," she said, refocusing. "I'll meet you as soon as I can get there, which shouldn't be long. Five minutes maybe?"

"Very well. Is everything all right, Mrs. Ryan?"

"No, things are not right at all. Just meet me as quick as you can."

Brady laid down the receiver, keeping her eyes on DeNardo. She reminded herself to breath normally. *Don't show the fear.*

Letting her eyes stray from DeNardo, she reached under the desk and coaxed the frightened kinkajou into her outstretched arms. When she did, a sudden jerking and trembling caused her to whirl back around. DeNardo violently convulsed, blood venting from his ears, nose and mouth. The sight horrified her. She dropped the kinkajou, and jumped back as the man spit up a mouthful of black vomit.

"Mrs. Ryan," he struggled to say. His mouth still oozed the nasty bile. "Help me. Help me, please." The words came from deep inside him, almost as if it were someone else speaking. He was at war with his own body.

Frozen, she tried to think. What could she do? Was there even anything to do? She had to get to safety.

"Please, Mrs. Ryan, help me!" he pleaded.

"What can I do?" she asked. "Tell me. Tell me what I can do."

His convulsions amplified. He strained to hold onto the sides of his chair, its metal legs rattling against the concrete flooring like popping corn.

"It's trying to take me over," he said. "Help me please!"

"What is? What's trying to take you over?"

"I feel it in my brain. It's eating my brain. For God sakes, help me!"

"What? What can I do?" She knew the answer.

"Kill me. Kill me please; don't let it take me. Don't let it control me!"

"But…"

"Please," he screamed. His face swelled to grotesque proportions, blown-up like a puffer fish. Bugs—at least what looked like thousands of lumpy bugs the size of marbles—moved wickedly under his skin. It was the vilest thing she had ever seen, ever imagined.

"Please, Mrs. Ryan, kill me now, before it's too late!"

Looking for a weapon, her eyes settled on a glass encased fire axe by the doorway. With a snapping blow of her elbow, she smashed through the case and took the axe in hand. She choked up on the handle, gripping it midway. If she did this, she was going to have to go all the way. The job had to be done right the first time—no matter how grisly it was. Every last ounce of emotion drained from her body.

"Do it, Mrs. Ryan. Do it!"

The bugs covered him. They were scurrying about, stretching his skin in unnatural directions. Brady had to end this quickly, for both of them. With a sudden rush of power in her arms and legs, her eyes locked on the spot she needed to aim for. The axe was drawn back and cut loose. The pristine blade hit DeNardo square on the side of the neck, slicing through his lateral flexion muscles with a sound like a bed sheet tearing. It sloughed his head with a clean, even stroke. She screamed. Fear, anger and aggression crystallized in one primordial sound.

The man's head landed with the hollow thud of a rug being beaten. It rolled helplessly into the corner.

The decapitated body jerked spastically. A bizarre substance retched from its grotesque stem. It was not blood. It was gooey, a queer combination of saline and gelatin. The substance flooded onto the floor and with a sudden shift in direction, headed toward her. She jumped back, but stumbled on the edge of the desk and collapsed to the ground. The goo poured from the body like a burst pipe. The floor was covered within seconds.

Her blood was thick with adrenaline. Scrambling to her feet, she grabbed the axe and hacked at it. The axe's iron head simply bounced off the substance's tough, malleable veneer, separated from its wooden handle and skipped across the room. Frustrated, she slung the handle at the substance, which engulfed it, breaking down its molecular structure until it blended in and faded away.

The substance rolled all around her. Surrounded, she could see no escape. The kinkajou hopped atop the desk and Brady pressed against it. Her trembling hands felt behind her, searching for anything to beat back her attacker. If she was going to end up like DeNardo it was not going to be without a fight.

Her hands closed on a small, magnetic paperclip holder weighing no more than a pound or two. She grabbed it and brought it down hard. The substance retreated clumsily as if shoved away by an unseen hand. She waved the holder in a wide arc, and the goo quickly fell back. It parted. It weakened.

Magnetism. It was the magnetism of the holder, she realized. The syndrome was retreating from the magnetism.

She stood, grabbed the kinkajou and with a swoosh of the magnet, cut a path. Ripping the chairs from the top of the desk, she shoved the furniture away with the ease of

someone thrice her size. She yanked open the door and escaped down the hall.

With a blinding immediacy, the overhead track lighting in the tunnel flickered to life. Templeton winced.

"This is my brother Norman's doing," Nikki cheered, clutching Templeton by the shoulders. The two headed down the tunnel leading from the physical plant to the biosphere.

"Now, I know why roaches scatter with light," Templeton said, his eyes turning away from the tube's sudden brightness.

When they reached the physical plant, Nikki and Templeton were instructed by Norman to push ahead through the relatively debris free tunnel leading to the biosphere, while he took a crack at reviving the main power generators. Now with lights, and the glorious sound of air passing through the side heating ducts, it was obvious he had been successful.

Reaching the point where the tunnel emptied into the biosphere, Templeton clicked off his flashlight. Depositing it back in his hip pouch, he glanced at his watch. "We've about five minutes until rendezvous," he said as they passed through the concourse circumnavigating the facility before reaching the opening where the catwalk once stretched. The twisted metal remnants of the walkway still dangled from the third floor's concrete base.

Gazing at the environmental chamber, Templeton was speechless. Over three-quarters of the environment was gone; swallowed by something the likes of which he had never imagined. Milky. Translucent. It was like dense air

but with a corporeal quality. The devastation was overwhelming.

Gone was all flora—no hint of the gigantic trees, brightly colored flowers and massive undergrowth. His beloved animals, birds and fish had also disappeared. The area was lifeless. This otherworldly substance had laid waste to it all.

He had heard Glover and Ryan talk about the damage the syndrome might create, but he had never imagined anything this overwhelming. How could he? Had there ever been anything as absolutely singular in appearance as this? If so, it had been manufactured by the runaway imagination of a filmmaker, and not chiseled from the sacred stone of reality with such unwavering power. He now fully realized the power of these little nanomachines. This was why such a high value had been placed on them.

He glanced at Nikki, who was also agog. "What's this?" Nikki asked.

"Bloody hell if I know."

"It seems to originate from the lagoon," Nikki said, pointing towards the center of the chamber, where the concentration of mass was heaviest.

He was right. It did seem as if the substance emanated from the eighty-five thousand gallon tank. Its silky, concentric waves gently rippled across the environmental chamber with the delicate grace of an insignificant impact tremor.

The realization hit Templeton in a flash.

"What's wrong?" Nikki asked.

"It's Mrs. Ryan. I directed her towards the sub-chamber. Straight into that ghastly mess."

Brady clutched the kinkajou tightly in her arms. Throwing open the stairwell door, she rushed down the murky, four-story metal stairwell with reckless abandon. Bounding down the final flight of stairs, she was startled when the room's lights suddenly regained life.

She had been in the dark for the better part of five hours, and it took a moment for her pupils to adjust. Was this a sign of things starting to turn in her favor? She wasn't ready to drop any bets on it. Clicking off the penlight, she made a mental note to drop a line to Duracell praising their long-lasting batteries. She stuffed the device in her back pocket. If she got out of this, she swore she would never go anywhere without it again.

Flying down the final flight of steps, she sized up the dank basement. It was a drably lit space. Sunken some fifty feet beneath ground, the cinderblock walls were decorated with an impressive array of exposed piping and large aluminum vents. It looked like some sort of industrial museum. In the distance rested the underbelly of the gigantic lagoon tank. Leading up to it was a long procession of grated metal tracking, flanked on either side by dark metal rails. The tracking, which appeared to loop around the tank, was raised a few feet off the floor. From the final steps, Brady couldn't quite make out what lay below. The rancid odor, however, told her all she needed to know.

Reaching the final step, she noticed a red fire alarm affixed to the blocked wall. To the side hung another fire axe. She wanted no part of that. *None.* She would never pick up another axe again. DeNardo's blood coated her sleeves. Was this really happening? Did she just kill a man? Tears forced their way from her eyes.

"Pull yourself together," she said. "You're not weak; you're strong. You can do this. You can survive."

She hit the grated tracking with such force it swayed. Wincing at the heinous smell below, she peeked over the rail at the thin coating of mushy sediment resting on the basement's concrete flooring. Marine life refuse.

She took a few steps toward the tank, when her legs locked. A severe pain shot through her head. Like a steel spike driving through her cranium, the pain radiated down her spine and nestled in her solar plexus. Her knees buckled and she lurched against the railing. Migraines ran in her family, and they tended to come on suddenly and at inopportune times. Nevertheless, she could not recall being overcome by one this quickly and with pain this severe. She felt another spike of pain, and realized this was no migraine. Rallying, she pulled herself from the railing and continued down the track. With each step the pain intensified. The clopping of her body weight on the grated metal reverberated in her skull like a heavy-duty pile driver.

Stumbling forward, a large spider blocked her way. The thing was the size of a Frisbee. Long hairy legs balanced the weight of its dense body. It was no doubt a refugee of the biosphere.

She took a step forward, but it reared back. Her sudden movement provoked the spider to lurch towards her. Surprised how aggressive the creature was, she nevertheless was in no mood to play games. With a swift movement of her leg, she smacked the creature with the side of her foot, pushing it over the edge of the walkway. She glanced over the rail and watched it plop into the dense sludge below. Slowly it disappeared.

After a few more steps, she was overcome by a clutching spasm in her stomach. Her esophagus contracted violently. Dropping to one knee, she leaned her head over the railing and vomited. Wiping her mouth on her shoulder, she made eye contact with the kinkajou. Its tiny eyes were wide and alarmed. She felt terrible, like all she wanted to do was curl up in bed somewhere and await last rites. Eyes blurring, she felt her senses mute. Overly drugged. That was how she felt. It was as if she had taken a handful of pain pills with a Robitussin chaser.

She held her eyes shut. When she opened them everything seemed hazier. Slower. Then faster. Her motor neurons popped like a string of Black Cat fireworks on the fourth of July. Keep moving, she told herself, one foot then the other. Moving would take her to safety. Moving would get her home. She felt her blood pressure maxing out. Her veins popped up from under her skin. Pressure. Unbearable pressure. Her heart felt as if it was going to burst through her thoracic cavity. Her head spun.

"What's happening," she mumbled, dropping the kinkajou. Her internal organs felt as if they were cramming into her skull, trying to escape through her eye sockets. Her legs quivered and then seemed to disappear. She was falling. Collapsing to the floor. Two firm hands slid beneath her, keeping her head from slamming into the grated metal. Looking up, the last sight she saw was Templeton's horrified face.

# STAGE FOUR: DECLINE & RECOVERY

: in recovery, symptoms are disappearing and patient is recovering. Alternately, patient may die.

# 13. STABILIZATION

Glover stood at the front of the room. Peering about the control room's conference table, he sized up his battered and beleaguered colleagues. They looked like hell. Holden's eyes resembled piss holes in snow. His haggard face was one of a husband who knew his wife's condition was grave, worsening by the second. It was to his credit that his mind was still sharp and alert.

To his left sat Polmeroy. His ruddy complexion had regained its sheen in the last hour. Of the entire group, he was the one that seemed most built for this sort of thing. He was still very focused and unaffected by the strain of the situation. But then again that made perfect sense, didn't it?

Next to him was an electrically nervous Kotuko-Sinclair. Her normally plucky, can-do spirit was soured by a frustrating night in the lab. Glover eyed them all. They knew the score. They understood the desperation of the situation. There was no need to bullshit.

"Fiona and I have been working along with our team throughout the night, since approximately 23 hundred hours," he said to Holden and Polmeroy. He squeezed his tired eyes shut and glanced at the wall clock. It was seven a.m. "We've been at it for a good eight-hours without pause, your pardons if we're a bit knackered. We have

some potential solutions, but we also have some considerable roadblocks, and to be brutally honest, the math is not on our side.

"Let me map the situation clearly. Fiona, please speak up if I misstate anything, we can't afford any misunderstandings at this point. When skunkworks was breached, several of the sensitive specimen cultures were compromised, and as a result we are now facing a biocatastrophe of our worst nightmares. It's not overstating the situation to say that how well we leg it in the next few hours will ultimately decide the fate of the planet. We've had a look at the cultures you procured, Bindu, and have run several tests. The results are frightful."

Kotuko-Sinclair couldn't remain quiet. "Our calculations indicate that present rate of replication is represented in a fairly simple formula."

She took a red marker and on the white, dry-erase board hanging behind her wrote in abrupt, wobbly letters:

$$M_{\text{repl}} = M_{\text{init}} e^{(t/PI)}$$

"The 't' is elapsed time in seconds, 'T' is the generation cycle of replication time in seconds. 'Mint', as measured in kilograms, is initial nanorobot mass at 't' equal to zero. And 'Mrelp' is the replicator mass at time 't.'"

Glover and Holden followed easily, but Polmeroy had a gigantic question mark hanging over his head. "Fiona, explain to me as if I were a third grader," he finally said, running his hand over his crinkled forehead.

"I was merely showing the formula we constructed to arrive at what is known as the explosive chain of lethal transmission, or burn. That's when a hot agent moves

through an area at an explosive rate, killing a large percentage of the population."

She laid her bifocals on the edge of her nose and read from a yellow sheet of legal paper brimming with hastily scrawled numbers. "Using the New Malthusian Scale to help model the population growth of the nanomachines and assuming that the population will double in size every thousand seconds, in the first ten hours after the accident, if we figure only one Petri dish of replicators was involved, there are now approximately 68,719,476,736 replicators currently in what we'll call the hot zone, which is the area containing the lethally infectious agents."

Polmeroy and Holden's jaws dropped. "I wish I had a Polaroid," she said dryly. Raising the sheet, she continued. "At the end of the first twenty-four hour cycle the burn will weigh a metric ton. At the end of forty-eight hours it'll outweigh the earth itself. Approximately four hours after that… it'll outweigh the solar system."

Glover offered a prickly smile. It was the third time he had heard this. Their task seemed more daunting with each reading. At this point, though, any negative energy equaled defeat, something no one could afford.

"With that lovely dousing of frigid water, let's figure out what can be done to not reach that point; let's figure a way to kill these little buggers. The nanomachines in our research have been constructed from carbon-rich diamondoid materials. In constructing these weaponized strands, EOC Labs, for whatever reason, constructed two separate variations, consisting of two entirely separate sets of properties. The red cultures you found, Bindu, are constructed with titanium-rich materials, and the other set, the blue cultures, from aluminum-rich sapphire materials."

"Meaning?" asked Holden.

"I'm not sure," said Kotuko-Sinclair. "There doesn't appear to be any obvious reason for variation, other than it makes our job more difficult in trying to counteract it. Ravi, the led EOC tech, swears he didn't even know these cultures were weaponized, and call me gullible, but I believe him. Don't you, Julian?"

"I do," said Glover.

"The different properties cause the nanomachines to react in different ways. The red cultures are eating machines, designed as Armageddon devices. These are creatures that, in time, are designed to devour our planet's biosphere. They're contagious. The very touch causes the nanomachines to attach themselves to a human, eventually entering his or her system and converting that person into a glob of goo in mere minutes.

"By contrast, the blue sample appears designed for one dark purpose: it's an assassination device, designed to invade a human body and turn the host into a programmable agent. The host keeps its outward appearance, memory, everything—but it's not biological, it's mechanical. Say for instance you want to assassinate the leader of a country, but you cannot get an assassin in striking distance. If you're able to infect someone close to the intended target with this syndrome, it will turn the infected host into what amounts to an android, and not just any android—one that can form shift at will, turning itself into whatever it needs to be in order to survive and accomplish its objective. In this scenario, that objective means assassinating the leader. This strand is what appears to have infected Mr. DeNardo, and regrettably, Brady."

"Is it an assassination tool only?" asked Polmeroy.

"That's the most likely application," said Glover. "But it will react in accordance to its programming. It could be

programmed as a simple household servant—one that looks like a movie star if you so desired, maybe a different one every day. Quite dastardly, actually. It gives humans the ability to turn anyone into an absolute servant, to totally rob them of their humanity. And do so without their ever knowing."

Polmeroy knew exactly where Glover was heading. This was the Terrestrial Nanite Collective Being syndrome he'd been told about. The guys from MIT, it turned out, weren't as out there as everyone thought. "How do you program it?" asked Polmeroy.

"Simple computer download, presumably," said Glover. "Shortly after transformation."

"What if this new being is never programmed?"

"Theoretically it'd be unaware anything even happened; unaware that it's no longer biological, that anything at all is different. Eventually it would discover its extraordinary new powers; powers it may struggle to harness, to understand. It would exist in a state of denial; unable to reconcile the fundamental differences it senses in itself and the memories of its biological self. It'd be quite unstable emotionally, so to speak. Think of it this way: how would you feel if I said you are no longer human? That you are a machine, a robot?"

"You're saying this machine would still have feelings?" said Polmeroy. His face was wide with surprise.

"No, it would have memories of feelings, belief it has feelings," said Glover. "It would simply devour whatever information was stored in the brain."

Polmeroy recalled the MIT techs telling him that a TNCB would take on a rudimentary self-awareness

followed by the development of self-preservation. “What’s the difference between memories of feelings and belief in feelings?” asked Polermoy.

“In its mind, none,” said Glover, shaking his head. “It’d have very confused circuitry.”

There was silence at the table. Finally, Glover said, “Holden, would you like to bring us up to date on Brady’s condition?”

Holden gathered himself. He’d heard very little of what had been said to this point. In a metered tone he said, “Brady is unconscious. She was lucid for a bit, long enough to describe what happened with DeNardo, relaying in some detail his state before entering his final seizure. It appears he crashed and bled out, a common syndrome in diseases like Ebola and other hemorrhagic fevers. The victim enters into massive hemorrhaging through the orifices, subsequently dying of shock. We’ve done a fair amount of research in the past on the dangers of nano-infections from this type of theoretic pre-designed virus, and Brady’s symptoms fall right in line with that research.

“Basically there are three stages. First, the hot agent enters the bloodstream and repairs any physical flaws in its host. A wound. An injury. Sort of like when you log onto your computer, but it first scans for viruses. The hot agent repairs these imperfections, ensuring that the chosen host is strong and fit. As these nanobots take residence inside the body, the first side effect that takes place is that the body temperature of the host increases. The normal body temperature for an adult human is 98.7-degrees. These nanobots can increase body temperature anywhere from two-and-a-half to four-degrees during this period.”

"Is it like a fever?" asked Polmeroy with a startled look.

Holden stared at Polmeroy. Through everything that had been thrown at them, Polmeroy had been the coolest and calmest of the group. Now he looked rattled. "A little like a fever. I guess it would feel a bit like a fever. It's more like your television set when it's turned on. The top of it heats up from the electrical output of its components. It'd be like having microscopic heating generators inside you." He looked at Polmeroy. "Why?"

Polmeroy shrugged. Holden continued. "In the second stage, the hot agent settles into the bloodstream and begins a period of incubation. Why, we're not sure, but it seems to be a period of in-depth analysis of the genetic code of its host. The time frame on this stage appears to vary greatly, depending on the number of hot agents that have infected the body and how much the hot agent's energy is depleted by fighting the host's immune system. It can last from minutes to hours to possibly days, it's anyone's guess."

He took a sip of coffee, and his voice buckled. "The final stage is marked by the hot agent's initiation of replication. It attacks the bloodstream first, particularly the walls of the blood vessels. This explains the violent hemorrhaging that's been observed. It then proceeds to attack the brain, eating away the gray matter first before delving into the main lobes. This causes a temporary dementia, followed by a swift biological death. Finally, there is extreme amplification. The multiplication of the virus is everywhere in the host until the host itself is transformed to pure virus."

Polmeroy looked at the Glovers and asked, "So, what do we do?"

"We knew there always existed a possibility—no matter how remote—for this type of disaster." Holden knew using the word "remote" was, to say the least, charitable. Glover continued, "So, we took the initiative six months ago to develop what we call bluebots—sort of police nanobots. These bluebots are equipped with manipulator arms with especially designed weaponry to fatally lance a replicating graybot's nanocomputers."

Polmeroy's thick eyebrows arched. "You're screwing with me, right?" Holden guessed Polmeroy had heard most of this before, through whatever intelligence had been gathered on the project, but he could tell by Polmeroy's reaction that he had never heard anything about police nanobots.

"We're very serious," said Kotuko-Sinclair. "A bluebot can destroy a graybot in somewhere between six and ten seconds. By comparison, as we've said, the graybots require around a thousand seconds to replicate—and probably much longer if under attack. Therefore since a bluebot can disable between nine and ten graybots within a single replication cycle, it stands to reason that a single population of two thousand kilograms of bluebots can in theory disable an entire worldwide sub-hysithermal nanite population in just a thousand seconds."

Glover took a deep breath and said, "Theoretically, the bluebots will not only allow us to cease the threat of global ecogaphy, but if injected into the bloodstream of a host in either the first or second stage of infection, it will destroy invading graybots, halting advancement of the lethal third stage."

"So turn them loose, and let's get the hell out of here," said Polmeroy.

"It's not that easy," said Glover.

"I didn't think it would be."

"The bluebots need schematics of the graybots they are battling. They need to know the placement of the graybots' onboard computers. We never saw this as a problem. We hoped the bluebots we developed would be a safety mechanism in case our graybots went awry. But after studying the cultures you retrieved, Bindu, they appear to have a different road map entirely."

Kotuko-Sinclair interrupted again. "The cultures you delivered were a bit grotty. The damage is severe enough that while we can tell they are significantly different, we cannot get any type of accurate reading of their actual structure. In order to stop this syndrome, we need fresh samples of the attacking graybots. That means we need someone to enter the biosphere, and take a tissue biopsy from DeNardo's remains."

Polmeroy volunteered for the mission not to be a hero, but out of practicality. He learned early in his career from the older agents at The Company that nine-out-of-ten times heroism got you a one-way ticket to Arlington National Cemetery. Instead they taught him two key phrases: manageable risk and intelligent risk. These were the keys to a long and successful career.

This was why he volunteered to head back into the biosphere. He knew if anyone else volunteered it *would* be because of heroism. He was the only one prepared for this type of mission. He was the only one trained for success in the physical world. It was his duty. For all the dirty things he hated about The Company he also realized its most appealing trait—the privilege to serve the greater good.

"Thank you," said Glover, accepting Polmeroy's offer. "But that's only part of our problem. We also need someone to venture into the snow, into the hot zone by skunkworks and actually extract a new sample from the footprint there. The tricky part is: we need a pure sample from deep inside the area; we can't have a sample plucked from the edge, something that may have been altered by the water properties of the snow. We need someone to wade into the very heart of the area, where even the island's crust has been turned into a form of the virus, and extract a sample. That is the only way to ensure that we will have the purest possible form of the graybots; the only way we'll know for certain that we'll have the information needed in order to defeat them."

Polmeroy's eyes widened. He had seen the site where skunkworks once stood. The syndrome engulfed it. Entering that area was a risk neither manageable nor intelligent. "Isn't that dangerous?"

"It's a suicide mission," Holden said. "To draw close enough to actually capture a specimen sample, the person will need to wade directly into the heart of the hot zone, and as a result, in all certainty they'll become infected. Simply put, for us to stop this thing, someone is going to have to willingly sacrifice his life.

"Someone is going to have to die."

With the communications antennae in ruins, the INMARSAT and short wave radio systems were rendered little more than industrial sized paperweights. Yet Pig's mission was made clear: establish communications with the outside world. How and with what was up to him. If vague on the means, Polmeroy and Glover were clear on the

necessary result: they *must* evacuate the station, removing all personnel from the infected area; they *must* alert the other research stations on the island to the lethal outbreak; and they *must* apprise Polmeroy's superiors of the situation, allowing them to weigh their considerable options.

"It's shitty, but you got to come through," said Polmeroy.

"You don't need to motivate me, yo," said Pig. "After what I seen today, sooner we get off this snow cone, the happier my white ass'll be."

Pig began scavenging throughout the station, trying to find the odd parts he'd need to pull together. Despite its many upgrades over the previous thirty-five years, the station was in need of a good spring-cleaning. The closets adjacent to the operations center were full of dusty, scrap parts ranging from an old eight-track tape player to a couple of beaten 486 computer processors to something which looked alarmingly like an Easy Bake oven.

Walking past the musty shelves, Pig found what he was looking for: an early eighties model Radio Shack transmitter. The antique device was in adequate shape, but when he flipped it over he noticed the battery cover had been ripped off. More dishearteningly, the batteries had been removed. "Damn, double-As," he muttered, checking the cell size. "Don't have those."

After examining the radio's inner workings, he decided he might be able to construct an alternate power source, some sort of electrical adapter. He hunted around the operations center until he found the proper tools: a wire stripper, razor blade, packing tape, screwdriver, soldering iron, hot glue gun and shrink tubing. Clearing off a table near the INMARSAT, he created a workstation for himself. Pulling the haloed desk lamp close, he inspected the

device's wiring. It was shitty. If careless, not only might this not work, it might burn down what was left of the station. He took the soldering iron and with surgical precision rearranged the wiring, a thin waft of smoke filling the air. He then took a piece of shrink tubing—a black, plastic straw looking substance—and applied it to the wires' solder joints. Taking his pocket lighter, he held the flame over the area, applying a small amount of heat to it until the tubing shrank and locked over the joint. With a controlled slash of his pocketknife, he exposed the interior wires of a spare piece of extension cord. He soldered the shrink tubing to the cord's interior wires. Taking the three-pronged end of the cord, he slid it into the wall's electrical outlet. With a flip of its switch, the transmitter hummed to life.

That was the easy part. A transmitter wasn't much use unless he could jury-rig an antenna. With the awkward grace of a rhinoceros, he made his way to the pod's lounge and wrestled the outdated Zenith television to the ground. He examined the flat, black antennae wire on its back. Liking what he saw, he sliced it off. He then grabbed cables that ran from the back of the antiquated, top-loading VCR and the surprisingly modern DVD. Arms full of wires and cables, he headed back to his workstation and began soldering the VCR and DVD cables together. He stitched a cable of about twenty feet in length. Soldering a piece of black RG-58 coaxial cable he found in one of the closets to the bottom of the antennae cable and a PL-259 to the end of the coax, he attached the cabling to the makeshift antenna. The entire mess was run into the transmitter.

He would need to generate between five and a thousand watts to be heard more than fifty miles away, and that was pretty conservative thinking. Looking at the

contraption, which resembled a gigantic hair comb with black cables running into a microwave oven, he was unsure if it would generate even one watt. He carried it down the corridor and through the entrance vestibule, laying it to rest just outside the main entrance's door. He slid the makeshift transmitter adaptor into the wall socket. It hummed to life. Somewhat surprised, he shoved open the front door and carried the antennae outside. The weather was bad, but as the sky began to brighten just a bit with the morning light, it seemed improved. Taking hold of the antennae, he climbed to the top of Ivan the Terra Bus, and secured it on top of the vehicle. He rushed back in and adjusted the frequency. He heard static.

Cutting on the transmitter he began his mantra: "This is Arctowski Station, do you read?"

Polmeroy held three yellow straws, one of which was cut shorter than the others. The decision had been made. Glover, Holden and Polmeroy would draw straws, with the loser risking his life in order to obtain the specimen sample that might ultimately disable the syndrome. Everyone was tense and uneasy, everyone except for Polmeroy. He seemed as at ease as he did the first time Holden met him.

"This is straight out of *Gilligan's Island*," Holden said.

"It's still more dignified than paper, rocks, scissors," countered Polmeroy.

When the decision was made, Kotuko-Sinclair was quiet. Now she let her displeasure be known. Holden knew she was offended by her exclusion. If the boys could do it, she could too—that had been her position on just about everything since the day Holden first met her. She had

taken pride in beating the men at whatever she had attempted. It was her right to compete, no matter what.

But he knew her motives this time were different. She was being a protective wife. She did not want her husband to draw the short straw. She'd rather draw it herself. It was a selflessness that Holden could appreciate, now more than ever. If he had to sacrifice his life to save Brady, he would. It was the first time in his life that he had ever been sure he would make such a sacrifice for someone else.

"If this is about chivalry, forget it," Kotuko-Sinclair said, her fingers nervously twitching. "There's no reason why I should not be included."

"This isn't about chivalry," Holden said, smiling at her. "It's about common sense, that's all."

Holden sensed Glover knew exactly what his wife was up to. Glover said: "My dear Fiona, you have to look at this coldly. You are more clued up on these nanobots than anyone. You'll be needed here once the specimens are obtained."

Holden added, "Don't think you're getting off easy. We're saving the toughest assignment for you—saving the planet."

Polmeroy mixed the three straws, plucked from a broom, and held them tight in his fist, the straws' yellow heads peeking out.

"Julian?" Polmeroy asked. Glover reached in and with a tug of his wrist, pulled a straw. Polmeroy turned and with a pulse of his eyebrows prompted Holden, who took his turn. The three then held their straws for comparison. Holden's was shortest.

"Well," he said, forcing a crooked smile, "that settles it."

"No, it doesn't," said a weak voice from the doorway.

# 14. TREATMENT

Nishi stood in the doorway looking at Holden. The elderly Japanese man's body slumped. His clothes—plain cotton t-shirt, loose fitting khaki's—hung from his bones as if he was a tiny, teaching skeleton. Everyone was surprised to see him, but none more so than Holden.

The last time he had checked on Nishi, a few hours prior, the old man was deep in a morphine-induced sleep. His condition was stable, but the prognosis was not good. What exactly that meant, Holden couldn't be sure without use of more advanced diagnostic equipment. It was clear, though, that whether it was, hours, days, weeks or months, time was starting to close in on Nishi. To see him now standing and speaking was stunning.

"Pardon my eavesdropping, but your plan is illogical," Nishi said. "Why should Dr. Ryan make such a sacrifice when he has so much and someone to live for? It is a poor solution. I should be the one to go. My life is over. Whether I go in Dr. Ryan's stead or not, I'll soon pass."

"Mr. Nishi," Holden said. "Thank you, but you're not up to it physically."

"I am very aware of my condition. I've come to understand the extent of my body's limit intimately. My body is weakened, but my mind is strong. I know what is at

stake. I would not volunteer if I could not follow through. I can do this. I want to do this. Buddha has asked this of me."

Polmeroy glanced at Glover, whose brows rose and cheeks contracted as if to say, "Why not?" Glover formed a V with his right thumb and index finger and stroked his goatee, which seemed to be graying by the nanosecond. He sized up Nishi. He looked frail, as if one wicked wind gust ricocheting off the face of Jardine's Peak would deposit him in Auckland. Still what they would need him to do was relatively simple and non-physical.

More importantly, it would be a logical and emotionally acceptable answer to a difficult dilemma. If Holden went and did not return, how could Glover live with that outcome? It would always haunt him. And what about Brady? How awful would it be for her to lose her husband in this fashion—sacrificing himself to save her? It was a bloody awful rascal. Nishi was offering something of incalculable value—a dignified, even heroic, way out.

"It's not an overly physical or strenuous job he'd need to perform. Conceivably, he could do it," Glover said.

Holden was torn. Part of him screamed to jump at the opportunity. He'd been thrown a lifeline. He didn't have a death wish. As Nishi pointed out, he did have so much to live for. But he also realized what was at stake and how razor slim the margin for error was. Again the feeling overcame him. Did he want to give up control?

"But what if Mr. Nishi collapses, like in the lab?" he said, turning towards Glover. "We can't afford that at this point. You heard the numbers."

Before they could agree or disagree on a course of action, Nishi settled the issue. "Dr. Ryan, you know

sending me to do this job makes the most sense. You're overcome with guilt over what your wife is going through. You are willing to sacrifice yourself to defeat that guilt. Live your life. Heal with her. She needs you. As I told you, if this is my time, then it is for a reason. This is that reason.

"It's time for Brady to go home."

As Polmeroy darted back to his room, he could hear Holden's clinical diagnosis ringing in his ear: *an increase in body temperature*. All he could think of was how warm he felt the entire time he was trapped in the shed. He recalled being thick with sweat. Even now, he was warm. He felt like he had a fever.

*An increase in body temperature.*

He looked at the makeshift bandage, wrapped around his hand. He hadn't thought of it since the injury. Flexing his fingers, he felt no pain emanating from the wound. That wasn't good. He tore loose the bandage's knot and unraveled the blood soaked material. He examined his hand. The large gash opened by the jagged skunkworks cinder blocks was healed. Not a scratch visible.

Stage one.

He was infected.

With that bit of information swirling in his head, he booted up his Tablet PC and tried logging in one more time. He had tried three times in the last forty-five minutes, but with no success. With the continued improvement in the weather, he gave it one more shot. The modem appeared to stall, then the unit's voice said, "Connected."

Polmeroy was surprised. He opened the e-mail template, and typed a distress message. Knowing the connection was unstable, he entered code 1.1 (which made

the message an instant transmission, the characters on the screen uplinked in real time) and got right to the meat of it:

*"We have a JK17PP, disaster level 1 in progress. Contamination level C-1. As of right now we have two (2) infected but living victims: myself (I suspect) and a Brady Ann Ryan (formerly Brady Ann Fleming) of Baltimore Maryand. I have reason to…"*

Just then the keyboard froze. "Connection terminated," the voice said.

"Damn it." He tried again. No go. How much—if any—of the instant message had gotten through before he lost connection? Glancing down at the screen he noticed a message in his in-box. Apparently he had been connected long enough to receive a message. It was from Tiernan. He opened it and read:

*"We ran a fingerprint analysis on your suspect."*

Polmeroy was shocked. He didn't think his message carrying the fingerprints taken from the Czech pistol had made it through. Apparently it had. It was his first bit of luck since arriving in at the station. He continued reading:

*"His name is Vladmir Konanykhine, an operative of unclear alliance working primarily out of Budapest. We spotted him several years ago while attempting to purchase radioactive beryllium in Barcelona on behalf of the Red Mafia. Our sources tell us he may be working now with New Forum."*

Polmeroy's interest peaked. New Forum was, as its name implied, an upstart on the international black-market. The first reports of its existence popped up in the previous year. The apparent mastermind of a handful of ex-KGB agents and Red Mafia bosses, New Forum, it appeared, was attempting to link the top international arms dealers from around the world in a coalition that would allow them to

monopolize the heavy-arms black-market. That would give them unparalleled power over not only insurgents in need of weapons but also the rest of the world, who would want to control where the arms were sold. One Washington think-tank even issued a report surmising that New Forum's business plan might allow for most of its revenue to be derived from *not selling arms*. The report speculated that certain countries would actually pay New Forum a regular stipend not to do business with certain governments. No one knew for sure, however. Any hard intelligence about the organization was derived from mounds of unrelated data. To the best of anyone's knowledge, New Forum hadn't even completed a transaction yet. Polmeroy continued to read:

*"It's possible New Forum is trying to gain hold of these specimen before EOC Labs has a chance to market them to other rogue organizations. Berlin station has been working on this, and we have reason to believe that New Forum may have an operative already working at Arctowski Station. Watch your back, Bindu, we can't askd898HFQKAS6YRN E8R8E6TB"*

The connection to the satellite had apparently been lost in mid-transmission. Garbled text filled the remainder of the frame. Polmeroy shut off the Tablet PC. His situation had changed yet again.

Dr. Jonathon Dean in no way looked fifty-five years old. In fact, Pete Jones, barely twenty-seven himself, often commented the SDLS chief looked younger than he did. Tall and strapping in classic Aussie style, Dean's dark tan and blond curls made him look as if he'd be more at home on the golden beaches of the Great Barrier Reef than the

musty old laboratory the SDLS leased from the Australian Geological Survey Organization.

One of the top seismologists in the world, Dean was notoriously slow to trust his protégés, even though the "kids" sent to him each spring for their year long doctorate field placements were routinely among the best young minds in the world. However, over the last ten months, he had come to trust Pete Jones and Sid Arthur completely. Particularly Pete. Especially Pete. Of all the kids he'd accepted into the SDLS over the years, Pete was near the top of the list. Smart. Analytical. Harshly critical and careful in his assumptions, he was an absolute prodigy. And like all good prodigies, he always had a bit of a swagger, a bit of an ego. When he discovered that iceberg, B-29, he acted unaffected, like it was his birthright to make such a discovery. Dean liked that; liked that a lot, in fact.

But now Pete looked at a loss. And Sid. Well, Sid was a bit timid in the best of times. Now he looked absolutely catatonic. That was why they were still kids.

"Any change?" said Dean. He threw his briefcase on an empty table and took his first look at the banks of computers that so alarmed Pete. Dean slid on his bifocals, his one concession to age, and looked at the screens he lovingly called the "Ouija boards." Jesus. Pete was right. The entire King George area was a kaleidoscope of orange and yellow blotches. He didn't know if it was a modern Atlantis, like Pete desperately surmised in his message, but it was clearly a major seismic event.

"Have you run the proper analysis?" asked Dean, looking at Pete. He hadn't. Dean could tell he was kicking himself.

"No."

"Why not?"

"We wanted to wait until you got here."

"Why in hell would you do that? You know what to do." Pete's eyes shied away. The kid didn't like to be corrected. That was okay. When he was twenty-seven he didn't like to be corrected either. He still didn't. Looking down at Sid, he said, "Start crunching that data right now, we've got to get our arms around this ASAP. Jesus, I was under the impression I could trust you boys." Then, looking back at Pete: "Have you talked to anyone else?"

"Colonel Pickering at McMurdo."

"You talked to Les, huh?"

"Yes, sir. He said they had just started tracking the developments themselves and putting together rescue contingencies. We passed along the distress message, which we were able to record. They hadn't received it. I think that settled the deal for them—sounds like they're going in."

"A rescue mission?"

"Yes, sir. That's what he led me to believe."

"Any more transmissions since?"

"No, just the one strand. We had it real faint for about thirty seconds and then it disappeared. I'm surprised we were able to pick it up and McMurdo wasn't—they're so much closer."

"Probably the early morning conditions. If the atmospheric conditions are just right, we sometimes pick up signals we shouldn't. It's fortunate that you were listening; otherwise the SOS might have simply drifted off into space." He paused for a moment, staring at the screens, before saying, "Les ask for anything else?"

"He asked us to uplink our readings to them—they don't have the Lamont software, I guess. We just finished

doing that. Sounds to me like they are as unsure of what's going on as we are."

"Is that a fact?" Dean gave him a look as if to say, don't be presumptuous. "He say anything else?"

"Yeah, he congratulated me on B-29."

Dean smiled. Pete's swagger had not totally receded. That was good. He didn't like kids who buckled under a little heat or, looking at the Ouija boards again, a hell of a lot of heat. He needed to see the computer analysis Sid was running, but it looked like—could it be?—the crust of the island was breaking apart.

Just then, Pete's cell phone rang. A digital version of the *La Marseillaise* played. Dean smiled. He knew who was calling. Pete had set his cell to play that tone for only one number—his little girlfriend, Sarah Fleming, who was working for the SDLS branch in France.

Pete picked up the phone, and said. "Hey, Sarah. Yeah. Yeah. We're looking at it right now.

"You're kidding me."

Guilt. A feeling of guilt overwhelmed Holden. Nishi was spot on with that assessment. The feeling came at him from so many different directions: he was guilty over bringing Brady here in the first place; he was guilty over the petty argument they had gotten into; he was guilty that she, not he, had become infected by the syndrome; he was guilty there wasn't more he could do to fight the situation; he was guilty that he had allowed Nishi to talk him into taking his place; but most of all he was guilty over the subject that had been left unspoken between Glover, Kotuko-Sinclair and him.

Hovering over Brady, who lay motionless, Holden glanced back at Glover, who leaned against the room's doorframe. A fluid-shield respirator, which protected him from any blood borne pathogens that might have carried the infection, covered his face from the bridge of his nose past his chin. He gave a similar respirator to Holden, urging him to wear it while in the room with Brady. Holden couldn't bring himself to put it on. Instead the mask hung around his neck like a loose-fitting bandana. Brady was his wife, not a patient. If he was to be infected with her disease, then so be it. It would be completely fitting and deserved.

Looking into Glover's eyes, Holden couldn't lie to himself any longer. *They had known*. They had known for a while, but neither had had the courage necessary to do or say anything. That went for Kotuko-Sinclair as well. They had all known to some extent EOC Labs had been up to something; something dark, something sinister. Yet none of them did a damn thing.

They didn't demand to know how the research and data they produced was being used back in Palo Alto or what exactly was going on in the newly established skunkworks laboratory. Holden had been aware of the financial condition of EOC, and the desperation of its board for over a year. He vividly remembered an encounter with a certain EOC board member who inquired about potential military applications of the project and the potentially astronomical value of weaponized nanomachines. Still he ignored everything, blissful in his ignorance. As long as EOC continued to fund their project, they were happy to bury their collective heads in the sands. And for that, Holden knew they were as culpable as Stephen DeNardo and his bosses at EOC.

Worse yet was the way he had kept it all from Brady. He never told her about any concerns or suspicions about EOC's motivation; never warned her how her husband might be co-conspirator in a chain of events that in the best of light might be called criminal negligence and in the harshest light—the light which more properly fit the circumstances—be deemed planetary genocide.

Even yesterday, as he sat in that decrepit little office and let DeNardo rip him apart verbally, he made no attempt to communicate the incident to Brady, even though she was standing in the hallway and heard bits and pieces of the conversation. He had completely shut her out, and for what? So he could grace the cover of *Time* as Man of the Year when he led the nanomachine revolution, curing cancer and home design in one fell swoop. He might as well be infected with the syndrome himself. He might as well be an android. His thirst for success had already caused him to sacrifice his humanity.

Glover placed his hand on Holden's shoulder. "Come, we've much to do."

Holden looked at Brady. He knew any minute she may enter stage three of the syndrome. When that occurred she'd go quickly. This could be the last time for him to see her alive.

Reaching into his pocket he felt her Locksley cross. He examined it, a glimmer of light reflecting off its red Carnellian stone. He started to lay it beside her, but stopped. She had always drawn strength from it.

"I'm going to borrow this," he whispered in her ear. "I'll take good care of it. When it's back in your hand, you'll be home."

Gripping the cross firmly, he made a deal with God. If He saw her through this, he would make this entire mess he

had created right. Holden knew he could still do that. As he made this pledge, he felt a strength, a resolution, well inside of him. At the same time, he became aware of an odd paradox. His mission was apparent in his mind. For the first time since this whole thing had started, he felt a sharp feeling of control. Yet at the same time, he felt as if he had somehow simultaneously given that control over to a higher power. It was a remarkable feeling. He realized Brady was right. There were no atheists in foxholes.

There were five Level A vapor protective Chemturion space suits hanging in the class-1000 air wash cabinet. They were pressurized, heavy-duty suits that met international specifications for working with hot agents. Their bright blue coloring had earned them the nickname "blue suits". Polmeroy, Holden, Nishi, Templeton and Pig sat on the gowning benches, prying off their shoes. Glover distributed the bulky suits.

Polmeroy was the first to receive his, and he wriggled into the encapsulating suit. Sliding his hands into the Teflon inner glove and then into the butyl rubber outer gloves, which were attached by gaskets, he adjusted the headgear. He could see clearly through the forty-millimeter PVC visor, even though from the outside his face was rendered featureless. He pulled up the gas-tight zipper and switched on the forced air respirator. His ears filled with the sound of rushing air. It was very difficult to hear. Breathing normally, he gave Glover a solid thumbs up.

"Breakthrough time—the time it takes for anything to penetrate the suits' skin—is four hundred and eighty minutes," Glover said. "You should be in good shape. If

you're still in the biosphere in eight hours, we'll have bigger problems."

Polmeroy knew his mission. He was to venture into the biosphere's environmental chamber, find the chamber's office and extract a tissue biopsy from the decapitated remains of Stephen DeNardo. This would save Brady's life, and Polmeroy guessed, his own as well. He had yet to tell anyone of his suspicion that he was infected. There was too much at stake to sit this one out. If the others knew it would only distract them from completing their assignments. No good would come out of that.

Not to be left without a hand in his wife's fate, Holden insisted on joining Polmeroy. Templeton, who volunteered, insisting he knew the layout of the biosphere better than anyone, rounded out the team. It was not the most experienced Special-Ops force Polmeroy had ever worked with, but it would have to do.

Holden switched on his suit's internal HAZ-MAT—a specialized hands-free communications device designed specifically for biohazard suits. He said into the black microphone that bisected his lower lip, "Bindu, you hear?"

"Loud and clear, ace. Got the goods?"

"Right here," he said. A clear, biohazard transport bag held two five-and-a-half inch Petri dishes made of Permanox, a super strong, biologically inert material. The Petri dishes were especially made for the project and lined with magnetic silicon mats, the magnetism of which disabled trapped nano-specimens. The dishes were also lined with a film of Krebs solution, an electrolyte used to maintain an external environment compatible with an existing cell.

Glover handed Polmeroy a clear container of a pale green liquid, which looked like Japanese Green Tea. "This

is Environchen. It completely destroys biological viruses, although I don't know if it'll do a bloody thing to these nanomachines. After you've extracted the tissue sample from DeNardo, rinse your gloves in it as a precaution."

Polmeroy watched as Pig suited up next. His job was that of chauffer. He would drive Nishi to as close to the skunkworks hot zone as possible. Once the mission was completed, it would be up to him to return the sample. Glover and Kotuko-Sinclair would then fulfill their roles in the lab. "You ready for this, ace?" Polmeroy said, looking at Pig.

Pig smiled and returned a devilish grin: "'Once more into the breach, dear friends, once more.'" He said it in perfect English, perfectly enunciated and clear. It caught Polmeroy off guard. Pig was full of surprises. Recalling the e-mail from Tiernan, Polmeroy wondered what other surprises Pig may be concealing.

Holden's neck was stiff and his head throbbed. He'd been up well over twenty-four hours. The exhaustion combined with the stress of the situation and the pain from his back made him feel like a complete physical wreck. Still, his condition didn't worry him. He was more concerned about Nishi.

He watched the old man as he slipped on his suit. He was gaunt and knife-edge thin. The walk to the clean room had taken its toll. Holden was still not sure sending Nishi was the right call. Glover unhooked the I.V. that ran into Nishi's right antecubital vein to make sure he was good and hydrated. Holden noticed the alternating magnetic field belt strapped around his midsection.

He pointed it out to Glover. “That going to cause a problem?”

“I don’t know. It might affect his HAZ-MAT. Those things have a bloody good kick. What type of alloys are his implanted rods?”

“A combination cobalt and palladium.”

“The curie temperatures of those alloys are pretty high.” A curie temperature is the temperature an alloy goes from nonmagnetic to magnetic. Holden could see where Glover was headed with this.

“Do you know how many rods?” asked Glover.

“Sixty.”

“Bloody hell. Each of those rods has power output of half a watt or so.”

“I know. That means his prostrate is generating enough heat to power a thirty-watt light bulb. What do you think? Do we chance him wearing it?”

“Better ask the patient, wouldn’t you say?”

“Mr. Nishi, do you need to wear your AMF now?”

“Oh, yes. My stamina is much greater with it.” Holden looked at Glover. Neither knew the correct answer. There was no talk of situations like this in medical school.

“Let him wear it,” Glover said. “How he functions is more critical than how the communications functions.”

Holden shrugged his shoulder. “Agreed.”

Nishi stepped into the suit, planting his feet firmly in the attached rubber boots and pushed his toes against their steel enforced tips. Even though the suit had an average breakthrough time of eight hours, Holden realized that would do Nishi little good. The aggressive nature of the nanobots he was to harvest was such that when they latched onto the molecular structure of the suit, they would burn through straight away. Nevertheless, the added layer of

protection might afford valuable time to carry through his mission.

Nishi slid on the sleeves. Before he pulled the face-shield over his head, he closed his eyes. As if in meditation, he took a deep breath.

"*Om Mani Padme Hum… Om Mani Padme Hum… Om Mani Padme Hum…*"

Holden took one last good look at Nishi. In all likelihood it would be the last time he'd see the man alive. His features were creased with age, but there was nothing sallow to his face, no sense of retreat. As sick as he was, he appeared at peace. He was a brave man. Everything rode on his back now. Holden's doubts ebbed; he was overcome by a feeling that Nishi wouldn't let them down.

Polmeroy looked around the room, sizing everyone up once again. For the last hour he had been distracted by the e-mail from Tiernan. If New Forum had an agent at Arctowski Station, who was it? Polmeroy doubted it was anyone from the project team. Anyone that close to the science of the program would have already had multiple opportunities to make off with a sample specimen. The same could be said for Holden, Kutoko-Sinclair and Glover.

It had to be somebody who didn't have access to the clean rooms, someone who was on the periphery of the project, just waiting for the right opportunity to present itself. Brady seemed too unlikely a candidate. Nishi? Unlikely as well—Polmeroy had done too much advance research on the old man and found nothing that would have fit the profile of an enemy agent. Pig? Perhaps. He seemed to take pleasure in being hard to figure. Perhaps too much

pleasure. As a rule, enemy agents didn't like to call that much attention to themselves. Still, he couldn't rule Pig out.

Norman? Nikki? Templeton? It could be any of them. First things first, though. The nanobots had to be stopped. Once that was done, then he could worry about New Forum. Just the same, he knew to watch his back. While he didn't know who was who, everyone knew who he was. That gave the bad guys a distinct advantage.

"Everyone's respirators functioning properly?" Glover asked, as they finished suiting up. They all nodded. With a squirt bottle of water, Glover inspected all four suits, looking for any tears or breaches in the material. He found none. They were ready to go.

"Mr. Nishi, do you have your Petri dishes?" he asked. Pig raised a clear bag with a pair of dishes identical to the ones Holden held. "All right, everyone knows his mission, so let's do it."

The words slid from his lips as the antechamber's ultraviolet lighting flickered then went dark.

# 15. RESISTANCE

Glover stood in front of the control room's main console, his outstretched arms braced against the counter top. He stared at the glowing bank of outdated monochrome monitors just inches from his face. His tired eyes tried to make out the narrow rows of DOS-based numeric graphics flickering on the screens. It was difficult. The feeble amber lighting was dimmer than during the initial power outage. The back-up generators weakened.

If he interpreted the information on the screens correctly, everything looked normal. The airflow was good. The water pressure was acceptable. There didn't appear to be any further breaches in the station's main structure. The clean rooms had not been compromised. The power grid was the exception. It had been damaged worse than Norman originally diagnosed.

He looked at the wall clock. It was a few minutes after eight in the morning. Time was wasting. From his corduroy pants pockets, he produced his last bottle of the homemade vodka. He poured a shot into his mug of coffee. After a quick thought, he added a second shot. They were in for a long fight. Time to quell his nerves while he could.

"Julian," said Polmeroy. His voice radiated with pristine clarity through the control room's digital intercom

system, or AWIS (aircraft wireless intercom system). The biohazard suit's HAZ-MAT mics were routed through the AWIS, with each suit programmed to a different frequency.

"When are we getting some power?" Polmeroy said. "These suits are hard enough to negotiate when there's light. In the dark I feel like a float in the Thanksgiving parade." There was a breathless quality to his voice, and Glover sensed he was moving quickly.

Glover placed his index finger on the lone muff of the lightweight, wireless headset that was interfaced into the AWIS. Into its small boom mic he said: "We're working on it, Bindu; the main generator has gone for a burton. I sent Norman and Nikki to have a go at it. I'll keep you updated. What's your proximity?"

There was no delay. Polmeroy's answer was as clear as if he was standing beside him. "Templeton is leading us around the concourse of the biosphere, and we're in sight of the freight elevator. It lets off near the office, so providing everything goes well, we should be back in short order."

"Sounds good, keep me informed. How's Holden?"

"Good." Holden, no doubt, was too near for further elaboration.

"Tell him Fiona is looking after Brady until he returns."

"Roger that, Julian. I have to go. I'll check back when we reach the office."

The AWIS clicked. Polmeroy switched back to the internal HAZ-MAT frequency that allowed him to communicate with Templeton and Holden.

Glover tapped his fingernails on the console. His anxiety was wearing on him. "Bloody awful," he mumbled, and swigged the lukewarm coffee. Following everyone

else's progress was against his nature. He had always been a do-it-yourself guy. He realized why it made sense for him, and not Pig or Holden, to coordinate the efforts from the control room. Still it made him feel a bit of a useless wanker.

What he needed to take the edge off was a good ole Gallaher cigarette. Fiona made him give them up five years ago, soon after they were married. She had given him an ultimatum—cigarettes or golf, because he might survive one, but together she was sure they would kill him. Little did she know that his real assassin might turn out to be his bloody career.

He flipped the intercom switch to "B" frequency and said, "Pig, this is Glover, where you at, mate?"

A moment of silence, then: "Comin' up on the spot right now." The reception from Pig's HAZ-MAT wasn't as clear as Polmeroy's. It was grainer, more distant. The storm no doubt had affected it.

"Everything okay?"

"Everything's cool. The snow's really slacked off. Visibility ain't too bad right now." Pig sounded distracted, even a bit nervous. "We're comin' up on the site now, Dr. Glover. Let me get back to you in a few."

Glover started to follow-up. Nothing seemed relevant, though. He had gone over everything with Pig at least three times already. Like an anxious father, he just had to trust him. Glover said, "Roger that. Keep me informed."

"True that."

Taking a seat, Glover tried to sit still. He could not. Something was bothering him. Something he could not put his finger on. The quiet and isolation of the control room was driving him mad. The parenting analogy came back to him. He recalled waiting for his fourteen-year-old daughter

when she went into London on her first date. He felt just as helpless now.

Unable to relax, he decided to check on Norman. It would be helpful to know the extent of damage to the power generators. He slipped the headset's muff away from his ear, and let it rest around the nape of his neck. Picking up the walkie-talkie sitting in its charger at the far end of the console, he pressed talk.

"Norman, this is Julian. Do you read me?"

There was a hissing pop. Norman said: "Dr. Glover…"

Stress was in the Pole's voice.

"Norman… you all right?"

There was scuffling. Glover could not tell if it was the poor reception or if something had gone awry. The vox was overcome with static. Through the din of noise, he heard Norman say: "Dr… ver… terrible." It was the sound of panic and it was all the more chilling coming from such a stoic figure.

Suddenly there was silence. The frequency was dead.

Before Glover processed what had occurred, the power from the SBPGs died. Glover was in darkness, again.

"That was Glover," Polmeroy told Holden. They jogged through the dim concourse of the biosphere. "He wants you to know Brady's fine, and Fiona is looking after her."

Unable to nod in the cumbersome suit, Holden shrugged. He didn't say a word. Polmeroy sympathized. He understood Holden's desperation. The stakes were high for him—higher in some ways than they were for Polmeroy, who was likely infected. It was always easier when it was you in peril rather than someone you love.

Templeton slowed the trio as they reached the freight elevator. He punched the floor button. The elevator's two-panel vertical sliding door opened. The trio stepped onto the checkered, steel-plated floor. Templeton hit the diode pointing down.

"Bindu, let me ask you something," Holden said. "How did you know I'd invite you to view the project, especially considering how negative you were?"

"Game theory: adversarial relationships in conflict under uncertainty. I'd been tracking your project for months and when our intelligence showed you'd be visiting Antarctica and had booked yourself on the Akademik Ioffe, I did the same, using a story on Nishi as my cover. Once I met you, I sized you up, looked for your hot buttons. That's what I do; that's what makes me good at my job. I guessed you'd be more likely to invite me to tag along if I were contrary rather than if I was an admirer. You struck me as someone who likes converting others to his way of thinking. You like to be in control."

"Easy to read, huh?"

"Don't be hard on yourself. Most people are."

"Are we in trouble… the Glovers and I?"

Polmeroy glanced at Templeton, who was listening. At first Polmeroy hesitated, but then realized if Holden didn't mind having this conversation, he didn't either. "I'm not a prosecutor and I'm not a judge. My superiors are going to want to spend a lot of time with you—how pleasant that is, well that's up to you. You're a smart guy, Holden. I think you understand the situation. Let's just put it this way, the more you cooperate, the better off you'll be."

"You'll make sure they know Brady wasn't a part of this, won't you? She didn't know any of the details of what

we've been working on. You know that. Please, help me protect her."

Polmeroy was non-committal. In all likelihood, Brady didn't realize the gravity of her husband's work. Still he could not make any promises. He was an agent of the government. His job was not to comfort marks. Especially those listed as national security risks.

"Listen, Holden…"

The cab's fluorescent lights flickered. Then they went dark. With a lurch, breathless fall and clunky stop of the hydraulics system, the elevator jerked to a halt. It was suspended between floors in the hoistway.

Norman lay flat on his back in the station's power plant and worked on the main generator. It was connected topside to a battery of twelve wind turbines. Throughout the night the storm's harsh winds had surpassed hurricane strength, causing the turbines' blades to whip around at speeds exceeding their sixty-five mile per hour maximum. As a result they overheated. Norman figured he had solved the problem the first time. Apparently he had been wrong. Now, as he inspected the generator, which converted the turbines mechanical energy to electrical energy, he was worried the machine might be too banged up to repair.

It appeared the internal cooling fan inside the generator was damaged. Because of its odd placement at the far end of the rotor, hidden inside the shining magnetic cylinder, called the stator, he could not reach it without tearing apart the entire machine. Norman looked in his toolbox three times, but could not find the right combination of wrenches, pliers and levers. He gave the motor the hairy

eyeball one more time, moving his flashlight over the poorly conceived inner workings.

As he did, he felt a creepy sensation on his thigh. Something was treading on him. Pulling his head out from under the generator, he shined his beam towards his bent legs. A spider the size of a hubcap crawled towards him. Norman recognized the species from Templeton's biosphere collection. It was a goliath bird eater, the largest member of the tarantula family. The hairy arachnid made an audible hissing noise. The Pole took his flat-head screwdriver and leveraged it under the creature's cephalothorax. He flicked it from his leg.

The spider shrieked and flicked its hairs. One caught Norman's eye. It stung. He cupped his greasy hand over his cheekbone as the eye began to water. His walkie-talkie popped. The reception was poor, but he could tell it was Glover.

"Dr. Glover," he started to say, but the pain deepened. The spider watched, as if its job was not done. Reaching for his bottle of Evian, he doused the creature with it. The result was shocking. As soon as the water hit it, the arachnid multiplied—first there were five, then ten.

"Norman… are you all right?" Glover said.

Within seconds every inch as far as Norman could see was covered with spiders. They attacked. In an instant Norman was blanketed. The spiders sliced into his skin with their long incisors. "Dr. Glover… terrible!" The walkie-talkie slipped from his hand.

His arms flailed, trying to knock the spiders away. It was an unfair fight, though. The numbers overwhelmed him. He tried to stand, but couldn't. The stabbing pain crippled him. Every inch of his body was ripped apart.

Blood covered the floor. The spiders frolicked.

Nikki was down the hall when he heard his brother's cry for help followed by the lights falling dark. Flashlight in hand, he hustled around the corner. The generator chamber exploded with huge spiders. They were everywhere. Their collective screeching pierced his eardrums. It was horrible. Norman's lifeless body sat in the corner.

Nikki's limbs locked. He didn't know what to do. He had to get them off Norman, but how? Spying a fire alarm on the masonry wall, he yanked the red handle. The room's sprinkler system was activated. Water cascaded from the pendant-shaped sprinkler heads.

Instead of chasing the spiders away, they multiplied further. Their bodies grew and strengthened with each droplet. Nikki stood in stunned silence. There was nothing he could do. He called Norman's name again and looked for any sign of life. His brother did not move. The creatures continued to rip apart his body. His brother was dead.

Taking a wrench from his tool belt, Nikki hurled it at the mass of creatures. He nailed one dead on, but the tool ricocheted away. The spider stood unaffected. His act of aggression had only provoked the pack.

They turned their attention from Norman and lurched toward him, their segmented legs thrusting forward with graceful agility. Nikki dropped his tools and sprinted towards the dormitory pod. The creatures gained on him with each step. He kicked it in gear. His long, loping stride cut the tunnel's distance yards at a time. Stumbling into the rotunda, he glanced at the wave of spiders closing. With crushing force, he slammed his opened palm against the red pressure-release valve on the wall. The emergency doors

were activated. With a thunderous hiss of pressurized air, the three-ton steel door thrust along its inner tracking. In a flash it emerged in the doorway, sealing the space with a thud.

Exhausted, he gasped for oxygen. Grabbing the baggy thighs of his filthy work suit, his nicotine tarred lungs burned. He heard a strange whine and moan—as if a water pipe was about to burst, only more intense. Flashing his light on the emergency door, he saw a swirling anomaly in the steel. It was as if some sort of mass was bubbling inside. Fine strokes subtly appeared in the anomaly, like a wispy, spectral design in the door's molecular structure. It was as if the door wasn't made from steel, but from latex. An army of hands pushed at the latex, trying to break through.

It took Nikki only a moment to realize he was not looking at hands. He was looking at the body prints of the spiders.

They were eating their way through the steel.

Pete Jones clicked off his cell phone and looked at Dean and Sid. They stared at him. His expression was stunned. They had picked up bits of his conversation with Sarah, but only bits. "Wow," said Pete, trying to regroup but distracted. "Looks like USAMRIID is involved in all this. Apparently there is some sort of biohazard disaster going on down there. A Colonel Tiernan at USAMRIID…"

"Tom Tiernan?" snapped Dean, surprised.

"Yeah, I guess. Anyway, Tiernan called the Strasbourg bureau to ask for help. I guess they wanted a couple of seismologists to go down to King George with the quick response team they're putting together."

"Who'd they ask for?" said Dean.

"Phillips and Dunlap."

"Figures. They're the best forensic seismologists in the U.S." Forensic seismology referred to the scientific analysis of seismic recordings from unanticipated man-made sources. Typical sources included clandestine nuclear weapons tests, explosions carried out by terrorists, aircraft crashes, industrial explosions, and explosions related to military activities. Forensic seismology aimed to use seismic data to determine and confirm information such as the precise origin, time and location of the source, the number of discrete sources, the energy released by the source, and in some cases, the nature of the source - i.e. whether it was a collision, an impact, a chemical explosion, a nuclear explosion, an implosion, etc.

"Sarah thinks they're mounting a fairly massive operation," Pete said.

He paused, wrestling with something. "Dr. Dean, who's this Tiernan guy?"

"Tom Tiernan? You boys are from the U.S., and you're asking the Aussie who Tom Tiernan is. You might want to study the scientific pecking order in your country a little more closely. I met him once in Washington, at a scientific conference at the Australian Embassy. He's the top dog at USAMRIID, a big hitter. A close adviser to the President, from what I hear—especially on the use of biological agents in the intelligence community. He's really an extension of the CIA. If he's directly involved in this, then there's something big going on. Usually he doesn't get involved unless it's something that eventually goes all the way up the ladder."

"All the way up the ladder meaning…?"

"Meaning something the President himself has made a priority."

Pete took this information in, unsure of how to process it. Sid, who had been silent for the better part of twenty minutes, said, "What else, Pete? Sarah said something else."

"Yeah," said Pete, trying to sort out whatever it was he was holding back. "Sarah's really worried. Her sister, Brady, is spending her honeymoon on King George. Colonel Tiernan somehow knew this and talked to Sarah himself. Asked her to undergo a DNA test for identification purposes and asked her to gather a lot of other information; a lot of personal effects and the like.

"He told Sarah that the details were sketchy as to what happened, but that Brady was dead."

Pig felt the alert mode of his HAZ-MAT pulsate. Reaching down and feeling along his hip line, he fumbled across the plastic-encased transmitter and flipped the frequency. Sitting behind the wheel of Ivan the Terra Bus, he kept his eyes locked on the murky, but improving, conditions. On the small sonar screen just below the steering column, a thick line rolled across. It was the steel barrels buried beneath the ground, which paved the way to the back part of the campus. The HAZ-MAT buzzed again. "This is Pig," he said into his mic.

"Pig, this is Glover, where you at, mate?"

"Coming up on the spot right now." Ivan didn't have power brakes and didn't exactly stop on a dime. Stomping his bunny boot hard against the floor, while simultaneously downshifting the Clark power shift, Pig felt the hydraulic

breaks catch. The forty-nine foot long vehicle's sixty-six inch high Goodyear tires eased to a halt.

"Everything okay?"

"Where comin' up on the site now, Dr. Glover. Let me get back to you in a few."

"I understand. Keep me informed."

"I will."

Pig yanked the lever next to the steering column. The bus' door opened. He stood and looked at Nishi, whose face was illuminated by his suit's hood lamp. "Ready, sir?"

"Ready." Pig was relieved to hear Nishi's voice. It was the first sound the old man had made since leaving. Pig was beginning to think he might have passed away. He helped Nishi off the bus. The vehicle's small lift lowered them to the fresh snow, which stretched untouched between them and the hot zone like a pristine beach leading to the ocean. Nishi wavered as his feet sank into the uneven footing. Balancing him, Pig helped him clear the nearly twenty feet of undulating drifts between Ivan and the banks of the hot zone. Holden instructed Pig to radio him if Nishi showed any signs of being unable to complete his mission. He considered it. As they walked, Nishi's strength rallied. Pig pulled away. Reaching the hot zone's edge, Nishi said, "From here, I go alone."

Pig felt the need to say something. "Good luck," "be safe" or "may the force be with you" all flashed in his head. None seemed appropriate. "Put in a good word… you know, with the big guy," he said.

Nishi smiled. "Quite unnecessary."

Nishi waded into the sea of gelatin. The matter folded around his boots. The farther he waded, the more it began to emit a strangely ethereal glow. It fed off the modest kinetic energy Nishi's movements produced. The glow

strengthened. A blinding light radiated across the entire area. Nishi waded farther and farther into the substance. This was not in the plans. He was to penetrate the zone far enough to capture a pure sample, and then retreat, passing along the specimen to Pig. But Nishi appeared to be ordering off the menu. He continued to push forward, until he was engulfed. The halo of light above was so intense that he was totally eclipsed from sight. Pig tried to contact Nishi through the HAZ-MAT, tried to figure out what the hell he was doing, but he had either shut off the device or the substance had rendered it inoperable. Pig watched until the glow of light became so overpowering that his eyes burned.

Something remarkable was happening.

# 16. PROPHYLAXIS

**“**Jules? Jules? Jules?” repeated Holden. Frustration and anxiety punctuated his rising tone. He alternated between the five HAZ-MAT frequencies. Was his vox tuned to the wrong setting? “Jules… Jules… Jules…” Still no answer.

The elevator was dark. The only illumination radiated from the three men’s flashlights and the face lamps of their biohazard suits. Stress coursed though Holden’s veins. His composure evaporated. Claustrophobia overwhelmed him, only not the type normally associated with a non-functioning elevator. Time was closing in on him. It was smothering him. Every minute. Every second. Time was squeezing him, and squeezing the life from Brady. He tried to reason with his nervous system, tried to negotiate with his lungs to moderate his heavy breathing. As usual, reason proved a poor regulator of emotion.

“Relax, Holden,” said Polmeroy.

“I’m trying.”

“Try harder. You need to stay with us, ace.”

Holden breathed deeply. “The hoistway’s steel frame, is it the problem?”

“How so?”

“Maybe it’s causing the HAZ-MAT to dump out?”

"I doubt it. HAZ-MAT is UHF-based, not like a cell phone, where the elevator's steel framing screws up the connection with an external cellular antennae."

Reasoned Templeton: "If the steel frame is the problem, we wouldn't be able to communicate with each other, would we?"

"Good point," said Holden.

"It's something else," said Polmeroy.

"Can we climb out? Is there an emergency hatch?"

"There is, but it opens from the outside, more of a rescue hatch," said Templeton.

Holden inspected the elevator. The lift's operating panel was inactive. He tried the emergency call button again. Still nothing. The walls were painted sheet steel, and the flooring steel plate. Examining the ceiling, he noticed something strange.

"What's that?" he asked.

"Hell if I know," said Polmeroy.

"Looks like the ceiling's bubbling," Templeton added.

It did look like it was bubbling, as if something was trying to fight through. The top of the elevator fluctuated as if made of rubber. Something was pushing on the other side, leaving thin imprints in the steel. The ceiling percolated like it might pop. A high-pitched sibilance filled their ears. The noise had an electronic quality. It sounded like the feedback of a microphone held too close to an amplifier.

The steel lacerated. From the opening fell a solitary brown tarantula. The spider was immense. No sooner did it flop upon the floor, than it bounded onto Holden's boot and shimmied up his leg. Holden panicked, shaking his leg and slapping it away with the back of his gloved hand.

"Jesus," he snapped.

"It's one of our tarantulas, only a helluva of a lot bigger," said Templeton, focusing his light on it.

It was then the elevator's roof completely splintered under duress. Like a cloudburst, spiders rained down through the gaping wound. Endless torrents deluged the men, stunning, battering and knocking them off balance. The sheer mass of the onslaught overwhelmed every inch of the lift.

Holden hyperventilated. The sound of his own heavy, panic-charged breathing flooded his respirator. Polmeroy and Templeton yelled through the HAZ-MAT, their desperate voices trying to communicate, trying to decipher what was happening. Mixed with the pounding sound of Holden's turbo-charged lungs and the unnatural hissing of the spiders, the result was a wall of indiscernible noise. The three men were engulfed, like prizes in a huge, disgusting—*alive*—box of Cracker Jacks. Holden was unable to move any part of his body: not his head, not his arms, not his legs. He was pinned against the wall, helpless. The three men were buried alive.

Holden felt the poisonous arachnids' legs move. Grasping to gain footing, their razor sharp incisors sliced into the biohazard suit's material. A lump of hairy bodies eclipsed the view through his faceplate. His pulse pounded in his ear. The driving rhythm of his blood stream sounded like a drum corps of military cadets. He choked on his oxygen. He was hyperventilating.

From nowhere a force blew through the mass of creatures. It hit him with unbridled fury. His body slammed backwards against the wall of the lift, crushing a gaggle of spiders nestled at the small of his back. An electromagnetic current rushed through his body. His hairs snapped to attention.

Lightheaded with a burst of color flooding his vision, he fell unconscious.

The computer program exploded in a massive attack of orange and blue streaks and the Richter Scale needles went haywire. Sid Arthur's cup of coffee slipped from his hand, and splattered on the floor. Two summers before Arthur had done a three-month internship at NOAA, learning the basics of space weather forecasting—something that he figured would make a handy pairing with his seismological pursuits. On two occasions he had the good fortune to witness major solar flares. A solar flare required energy built up in the solar atmosphere to be suddenly released. It was one of the most interesting summer breaks he had ever spent, and it had given him a greater appreciation for just how different each heavenly body was. After all, there was nothing on earth that he could compare to a solar flare.

Until now.

"Holy shit!" he said. Dean and Pete Jones stopped their conversation mid-sentence and looked over.

"What is it? What do you have?" asked Dean, whose eyes widened at the sight of the Ouija board. "Jesus Christ…"

"What is it, doc?" Sid said, his hands falling helplessly by his side.

"I don't know, but I'd guess we're about to have reports of power outages across the southern hemisphere." As he said this, their lights flickered and went dark.

Nishi's diminutive frame disappeared from Pig's view, eclipsed by the intense concentration of light radiating from

the hot zone. Pig was dumbfounded. Dr. Glover and Dr. Ryan walked he and Nishi step-by-step through the plans at least five times. And they stressed—*stressed!*—not to deviate from the plan under any circumstance.

So what was Nishi doing walking into that mess?

With his forearm shielding his watering eyes, Pig reached to change his HAZ-MAT frequency. He wanted to radio Glover and ask, "what now?"

A thunderous clap stopped him cold. The light exploded into jagged spears darting every which way. Pig fell flat on his stomach, shielding himself from the sudden outbreak attack. The snowy air filled with crackling electro-magnetic energy. Looking up, he saw the eye of the mass whipping itself into a maelstrom. It spiraled tighter and tighter. A visible sphere of at least a hundred feet in length formed. The softly glowing orange-red body of light was haloed by red sprites and blue jets.

The sphere held its position. It gained energy like a revving Top Fuel dragster. Its intensity was so overwhelming that it could not be contained any longer. Breaking loose, it jetted around the area in an unpredictable path. The sphere whizzed by Pig and sliced Ivan the Terra Bus in two. Sparks fluttered as the vehicle's steel frame split evenly, like a loaf of bread whacked by a razor-sharp hatchet. The sphere's energy increased and it picked up momentum. Making an abrupt course shift, it slammed off the side of Jardine's Peak and ricocheted towards the station's campus. But before it could reap any destruction, the sphere's intensity reached too fevered a pitch. It exploded in mid-air with a deafening crackle.

It was at once the coolest and most terrifying thing Pig had ever seen. It took him a moment to collect his nerves. He stood and surveyed the area, which was still and clear

save for a distant echoing. The blinding light was gone. Amazingly enough, so too was every last trace of the infection. The area appeared completely clean. The snow had been eaten away, as had the topsoil, leaving the island's rocky crust exposed. A huge crater sat in the area where skunkworks once stood. The syndrome seemed to have completely retreated.

Pig flopped on his butt, and stared ahead, blurry-eyed. Nishi was nowhere to be seen. Calling out the old man's name again and again, Pig received no response. He stood. Trying to collect himself, his legs jiggled. He assumed his nerves were on edge, giving him Jell-O legs. But the motion became more pronounced. He noticed the horizon quiver. A series of ground cracks radiated from the crater ahead. They shot off in all directions. The earth buckled. The ground was breaking apart below him. The edge of the crater began to advance.

Pig turned and scurried away, ducking through the bisected hunks of Ivan the Terra Bus. He moved as fast as his wobbly legs would carry him. Turning, he saw one of the cracks race towards him. He threw himself into a drift as it raced by. The ground split apart, the force allowing air pockets trapped beneath the island's rocky crust to shoot upwards in spirals of steam. From the crevice what looked like a huge bullet exploded towards the sky, a trail of rocky debris behind it. Pig watched the object fly five or six hundred feet straight up before gravity sent it spiraling back towards earth. It exploded into the snow. It took a moment for Pig to realize what had happened. It was one of the steel barrels buried just under the topsoil to create a path for Ivan's sonar to navigate during bad weather.

No sooner had he strung this thought together than another barrel rocketed from the ground. Then another.

And another. Pig watched them hit the peak of their trajectory before turning back. They picked up speed at an alarming rate. One crashed into the remains of Ivan, smashing into the gas tank. It exploded into a fireball. Another pounded into the base of the mountain. Snow rushed down its slope. The third fell towards him. He scrambled to his feet and flew out of the way. It exploded into the ground, a mushroom cloud of snow rising from the crater it created.

He ran in the opposite direction. Looking back, he saw a line of projectiles firing towards the sky. It was as if the island had declared war.

Through the din of explosions, he heard the beautiful wash-whop of rotor blades. He stopped and waved his flashlight. The helicopters had arrived.

The elevator hit the bottom floor with a bone-rattling jolt. Holden was startled back to consciousness. His head throbbed. He felt as if he was going to vomit. Everything was hazy and unclear. The cab jerked as the elevator's doors opened. The lifeless spiders fell away, allowing him room to negotiate.

*What the hell?*

He knocked the limp, hairy bodies away. He crawled through the doorway and into the environmental chamber. Just behind him was Templeton.

"You okay?" asked Holden.

"Yeah, I bloody well think so. Bit dizzy."

"Me too." His head rang as if he had been hit straight on with a Louisville Slugger. Every nerve in his gums and teeth tingled.

"What happened?" asked Templeton. His wobbly legs caused him to lurch forward before righting himself.

"I have no idea. I blacked out."

The two men swayed like a pair of punch-drunk fighters. It took Templeton a moment to clear his mind before asking, "Where's Polmeroy?"

Holden looked back, but Polmeroy was not following. "Bindu?" he said into his mic. Each syllable reverberated in his ears. Just moving his jaw was difficult. "Bindu?" When Polmeroy did not answer, the two men marshaled their energy and forced their way back into the lift. They pushed away the inanimate spiders, until they found Polmeroy's flaccid body huddled in the corner. Grabbing his arms, they pulled him free. Stretching him out on the ground, they propped his head against the masonry wall. He was unresponsive. Holden began to unzip Polmeroy's blue suit, to examine him, but Templeton stopped him.

"What are you doing?"

"Making sure he's not hemorrhaging."

"Do you think it's wise to breach his suit?"

As if to show that the matter of breaching the suit had already been decided, Holden stuck his index finger in one of the suits many shredded areas, where the spiders' fangs had gnawed through the fabric.

"I see your point," said Templeton, noticing similar imperfections in his suit and Holden's.

"If there's anything airborne in here, 'fraid we're going to be exposed," Holden said. He unzipped the front of Polmeroy's suit and slid it from his body. He felt tingling in his hands. His fingers went numb.

"Do you have tingling in your extremities?" he asked Templeton.

"Yeah, a bit."

"Nausea?"

"Yeah, now that you mention it. Why?"

Holden examined Polmeroy. There were no external signs of distress; no bite marks, no open wounds, no burns. He placed his ear near Polmeroy's respirator. He breathed normally.

"The hell with it," Holden muttered and peeled off his suit as well. Removing his respirator, he was overcome by a bitter smell wafting from Polmeroy. It smelled like burnt wires. Smelling his own bare arms, he realized the odor emanated from him as well.

"I think the three of us have a bit of electrical shock."

"Electrical shock?"

"Yeah, whatever disabled those spiders was, I'm betting, electrical. We're all suffering symptoms—dizziness, nausea, this wretched smell. Bindu's suffered the brunt of it, it looks like. His vitals are good, but he's out cold."

"So what do we do now?"

A grim situation just got grimmer. Still, there was only one real option: they had to complete their mission. "How far is the office from here, where DeNardo's body is?"

"Down the hall a few hundred meters, around the corner."

Holden glanced down the dark corridor. "Stay here and watch Bindu. See if you can reach Glover. I'll get the samples myself."

The office door was ajar and Holden tried to open it further. Something stopped him. He corkscrewed his torso through the narrow opening and illuminated the area with his flashlight. A desk partially blocked the doorway. With

his left arm he slid it far enough to squeeze through. The legs and side of the desk crumbled as he did so.

Stepping through the threshold, he saw that the room had been thrashed. DeNardo's decapitated body slumped in a chair, broad strokes of dried black vomit splashed around him. His severed head rested in the corner. An axe lay at the corpse's feet.

What had he put his wife through? How could he possibly make this up to her, erase this horror from her memory? After bearing witness to such brutal carnage, in fact being forced to execute the horrible task, even the strongest would be pushed to the psychological brink. Majorca was not enough. This was going to take time and dedication.

Holden was surprised the flow of goo Brady described was absent. The concrete floor was rubbed raw, and Holden could make out what seemed to be a huge divot. The bottom half of the wall was also disintegrated, exposing the adjoining animal paddock. The goo, though, had somehow receded. But to where? And how? Whatever the force was that disabled the spiders, must have had a similar effect on the goo.

He pulled from the sealed clear bag two Petri dishes. There was a biopsy to be performed. He got at it.

Templeton tried to contact Glover, but could not. He tried Holden as well, but the HAZ-MAT was dead. The electrical shock had caused a short circuit in its wiring. Taking a few steps from Polmeroy, he shined his light into the environmental chamber. A swath of destruction was all that remained. It was like a forest in the aftermath of a rampaging fire. The majestic trees and vast foliage had

been eaten away. The basin dissipated. The animals and birds had vanished. Glancing down, he saw the body of one of the spiders. Prodding it with his boot, its body separated. With another touch, it broke apart into a heap of soot.

Now was the time. The chaos of the situation was to his advantage. This was the opportunity he'd been waiting for. He was beginning to think was never going to present itself. Leaning over, he checked Polmeroy. He was out cold. Getting Polmeroy out of the way was a stroke of luck. He considered killing him right then, but didn't. He didn't want a personal vendetta with the U.S. intelligence community.

He peeled off his suit and pulled from his waistline a C275 pistol. He would wait for Holden to return, kill him, take one of the samples for himself, return the other to Glover and say that Holden had perished in the Malay. His mission would be complete.

After nearly eighteen months on this Godforsaken island, he would be able to go home.

An oppressive sense of urgency bore down on Holden. The clicking of lost seconds beat along his cerebral cortex. Time was all that kept Brady alive, but time was being siphoned.

The biopsy of the corpse's wound included two tissue samples and a small amount of cebrospinal fluid. He swabbed the samples into the dishes' Krebs solution. DeNardo's body was brittle, as if charred. There were no signs, however, of burns. With each delicate touch, Holden felt the cadaver's tissue disintegrate further. It was as if every nutrient and property binding DeNardo's molecular structure had been robbed. Even the slightest pressure

caused the mass to crumble further. One good rattle and both the body and the chair it sat on, which seemed to suffer from the same bizarre condition, would be reduced to an indiscernible pile of nothing.

Holden heard a loud crash from outside the office. Sealing the Petri dishes, he placed them in the zip-lock biohazard bags. He ran to see what had happened. He grabbed the door, still only partially open, and began to pry it further, when its knob turned to dust in his hand. Shaking his hand free of the powdery substance, he grabbed the side of the door. Its metal frame splintered from his force. It was comical. It was as if he had turned to Superman.

Stepping into the hallway, he rushed down the path toward his colleagues. With each step the floor fluttered. It was weakening. Like running on a rope bridge, the ground swayed beneath him. Whatever the syndrome had done to DeNardo, it had done the same to the entire structure of the pod.

He moved towards the elevator shaft. Ahead, a steal beam was wedged into the floor. Several smaller pieces of debris lay around it. Overhead he saw where one of the dome's steel girders had broken free. It had spiraled to the ground, burrowing through the top layer that separated the environmental chamber from the basement that serviced the lagoon tank. Holden touched the girder. Its steel was strong. Its structure had not been compromised the way everything at ground level had.

Hearing a snap, he whirled to see one of the three-inch thick glass panes separate from the middle of the dome. Another girder was knocked free in the process. They both plunged. On impact, the glass and beam sliced through the structure's weakened flooring, cleaving the entire width of

the environmental chamber. The floor jiggled. The nature of the structure's instability became clear.

If the syndrome had only affected the biosphere's environmental chamber, and not the dome itself, then it would be impossible for the structure's diluted base to support the massive weight of the dome. The building was top heavy. That could mean only one thing: the entire structure was about to buckle and collapse.

Templeton approached.

"Is everything okay?" Holden asked, breathless. "Where's Bindu?"

Templeton raised his gun. Holden's eyes widened. "Let me have the sample, Dr. Ryan."

"What?"

"You heard me. Let me have the sample."

Holden didn't know how to react. Giving up the samples was not an option. They meant Brady's life. He reached for the Petri dishes, as if to protect them, when Templeton's body lurched forward. His gun hand flailed. A single shot exploded and ricocheted off one of the beams. From behind, Polmeroy landed a right hook to the side of Templeton's head, staggering him. Polmeroy wrapped around Templeton's torso, restraining him. He glanced at Holden and said, "Get out of here! Go now!"

Holden wanted to help Polmeroy, but time was ticking. He had to get to Brady. He darted toward the heart of the environmental chamber. Just ahead of him another pane fell from the dome, trailed by a rush of snow. When it crashed to the floor a rippling spider web of cracks spread with uneven momentum in all directions. The environmental chamber's floor looked like an automobile windshield smashed by a stone. Taking a rock lying by his feet, he threw it ahead. It was an old trick he'd used as a child when

testing for thin ice on a lake. The stone hit the floor and crashed right through.

The ice was very thin.

With a swift crack from his elbow, Templeton knocked Polmeroy away and with a roundhouse kick to the side of his head, sent him sprawling to the ground. Templeton grabbed his pistol, which had been knocked free. His finger released the gun's safety. The barrel was aimed at Polmeroy's left temple.

Polmeroy ripped his SmartWhip from his wrist and pulled the operator from his pocket. The device un-spooled. Polmeroy whipped it at Templeton just as he heard the releasing of the gun's safety. Polmeroy's aim was bad. Instead of hitting Templeton in the torso, the coil wrapped itself around Templeton's waist.

Unfazed, Templeton locked his jaw, aimed and fired. Polmeroy rolled hard to the right. The shot whizzed by. Before Templeton had time to center a second shot, Polmeroy rolled his thumb over the SmartWhip, turning it as far as it would go. The coil contracted around Templeton's waist. With a horrendous spasm of his throat and face, Templeton's upper-torso was sliced from his lower half. His still twitching body parts crumpled to the ground in a bloody heap.

Holden watched this play out. He stared in disbelief at Templeton's severed body. Polmeroy yelled, "Holden! Jesus Christ, look out!"

Turning, Holden saw the black cougar charge. It was less than a hundred yards away. The animal was closing with long leaps.

Holden took a quick step forward. His weight caused a fresh ripple to open in the floor. Another step and the cracks became even finer and weaker. He glanced at the beast and saw its back legs give out, falling through the flooring. Its front paws grasped the loose surface, pulling itself up. It began its charge again.

He had to find a way out of the structure. As more panes rained down around him, he ran for it. If he could cross the environmental chamber, he could get out via what was left of the catwalk. It was his best hope. It was his only hope.

Panes exploded around him like bombs on a battlefield. He glanced at the cougar, now a mere twenty yards off. A pane slammed into it. Then another. It was knocked off stride, but unharmed. Holden felt the flooring give way. It crumbled to bits behind each of his bounding strides. In the distance he saw the still hanging remains of the catwalk. It was possible.

His footing faltered. It was as if he had stumbled into an open manhole.

From behind he felt the breeze of the cougar's claw as it swiped. Holden's leg fell beneath him, and his momentum slung him forward. He fell face first. But instead of slamming into the flooring, he ripped through it. The feeling of falling refreshed itself.

He felt himself fall… and fall… and fall…

# STAGE FIVE: SIDE EFFECTS

: problems that occur when treatment affects healthy cells; unexpected results.

# 17. ISOLATION

His eyes opened wide enough for light to penetrate. Not much else registered. His head ached from his crown down the back of his neck, and his legs throbbed to an implausible degree. Everything else was numb, including his brain. He was able to reason sufficiently to know he had been fed some potent sedatives. With each blink his senses rallied. They sharpened, allowing his surroundings to fall into logical context.

He lay in a bed with simple blue blankets, coarse to the touch, and dull aluminum rails. Expanding from there, he noticed a clear plastic encasing the bed. He was in some sort of contamination isolator. The empty glove ports hung around its perimeter.

Peering through the isolator he made out the sketchy outlines of his narrow confines. He felt simmering turbulence. A constant roar filled his left ear. He was in an airplane. Some variety of military transport, it appeared.

Another isolator sat in front of him. To his right, across the aisle, was an entire row of units. He was in a flying ICU of some sort. A figure, cloaked in an orange biohazard suit, walked up the aisle, checking the vital readouts of each patient. He started to call out, to ask what was happening. But he couldn't. He had been intubated. An oral

endotracheal tube ran into his mouth, past his tonsils and down his throat. He tried to signal the figure, but he couldn't do that either. His extremities were numb and unresponsive.

The figure—a physician?—was rendered genderless and aloof by the bulky biohazard suit. Through the visor of the physician's suit, he noticed a pair of azure eyes peered at him. He tried to communicate by blinking, but the physician's only response was to make a chart notation. The figure pivoted, examined the I.V. pole by his isolator and adjusted a knob on the Kangaroo Pump. An intravenous tube ran through a sleeve in the isolator's side and into a needleless, two-way influx valve in his arm. Within seconds, he felt a cool sensation enter his vein. He lost consciousness.

His eyes opened with the first shout. He was still on the transport plane, still in the air. Several figures dressed in orange biohazard suits leaned against the PVC shield of the bed across from him. Their hands plunged into its glove ports. They worked to revive the patient inside.

He remained conscious. A river of sedatives cascaded through his system. His eyes blurred. He relied on his ears to eavesdrop on the trauma.

"She's crashing," said a female voice.

"The treatment isn't working," said another voice, this time male.

"She's bleeding out," said a third voice, again female.

"She's entering the third stage."

"Colonel?"

A fourth voice, stern and heavy, said, "Inject the acid."

"Mark that," said female one.

"Injecting 40 CCs of hydrochloric acid at 20:30 Zulu Time," said male one.

"And destroy the body per protocol," said the colonel.

"Controlled incineration, Colonel Tiernan?"

"Yes, Major. We can't risk an outbreak at forty thousand feet. And Major, from now on keep all moisture away from these specimen. It appears water simply makes this syndrome too unstable and unpredictable."

He was jarred awake. He was on an isolation stretcher. Two figures in biohazard suits moved him out of a transport van and placed him on a gurney. The figures rolled the gurney toward the side of a non-descript brick building. The sun shined through the stretcher's PVC tenting, and bathed him in warm sunlight. For a moment he forgot where he was. The sunlight temporarily transported him to some far off beach—maybe Majorca? He could almost hear the crashing of waves. A slight smile developed around the tubing running into his mouth. Was the nightmare over?

The figures lifted the stretcher from the gurney and inserted it feet first into what looked like a small iron oven that opened from the side of the building. A thick steel door slammed behind him. He was in darkness.

It was like being inserted into a morgue's vault. For the first time he wondered if he was dead.

No sooner had the thought settled than a battery of air showers activated, dousing the outside of the isolator. The interior of the oven pressurized. A few moments later a door opened near his feet. The chamber flooded with light. The isolator was pulled out. A new team dressed in biohazard suits introduced him into a new clean room

environment. He was placed onto another gurney and moved into an isolation suite.

Time had lost all meaning. How long had it been since he fell unconscious? A few days? A week? Two weeks, perhaps? He had no clue. His brain sobered and for the first time he pieced together the random slivers collected by his subconscious. He remembered the environmental chamber and its sub-chamber.

He remembered falling. Then there were men… men in biohazard suits, placing him on an isolation stretcher and carrying him to… where did they carrying him to? A helicopter. He remembered a helicopter and a decontamination chamber and being doused in chemicals.

Then the aircraft…

And trauma…

And what did they mean, "inject the acid"?

Inject it in whom? Did someone die? Everything was so hazy. Details of his own identity escaped him.

The question again entered his mind, "Who am I?"

Two figures entered the isolator. For the first time the figures were not hidden by biohazard suits. Instead they wore white protective suits and positive-pressure, HEPA-filtered Racal hoods.

Their faces could be seen.

He sized them up. Two females. Both young. Sympathetic eyes. He recognized the azure eyes of the taller. The other had green eyes.

"Good morning," said the one with azure eyes.

He blinked twice.

"You're cheery today," said the one with green eyes.

"Today is a good day," said azure eyes. "Today we extubate."

"If you understand, blink," said green eyes.

He did.

"Good," said azure eyes. "This may be a tad uncomfortable, but there shouldn't be pain. Understand?"

He blinked.

The two performed the procedure, which lasted only a minute. His throat was sore, his larynx stiff and weak. He tried to speak, but could not.

"Relax," said green eyes.

"It'll take your throat time to recover," said azure eyes.

He tried to grab them, but when he did, he realized for the first time that his arms were strapped to the bed, as were his legs. He was bound like an unstable patient in a psych ward. He rattled the bed as azure eyes injected a syringe into his I.V. bag.

As he fell unconscious, he glanced at the reflection on the side of one of the metal medical carts. It was the first time for him to see his face.

He saw the face of Holden Ryan in the reflection.

Azure eyes stepped through the isolation suite's decontamination chamber, pushing a wheelchair. Two male medics trailed. They were no longer wearing biohazard suits, opting instead for single-piece white jump suits, and hairnets.

"Where am I?" he said. "Am I in a hospital? Where are the others?" It was the first time for him to hear his voice. It sounded unnatural. There was no infliction. The syllables sounding flat and muted.

The two men unstrapped his arms and legs.

"What are you doing?" The words appeared. He was not even sure if he moved his mouth. He was a bystander, not an active participant.

"We are taking you to see the Colonel."

"The colonel?"

"Colonel Tiernan."

"Will he tell me where I am?"

Azure eyes did not answer. The two medics unbound his arms and legs and slid him out of his hospital gown and into a white jumpsuit like they were wearing. They helped him to the wheelchair. He tried to move his limbs, but could not. He wondered if he was paralyzed.

Azure eyes led the group back through the decontamination protocol, down a short hall and into another clean room environment. Two men waited in front of a large meeting table. The men wore the same white jump suits. The nearer was younger, maybe mid-thirties with close-cropped hair. His face boasted the perfect symmetry of a Roman sculpture. The other man was considerably older, with a mane of gray hair. Both looked anxious.

The younger looked him straight in the eye, and said, "Good to see you, ace. You had us a bit worried." The voice triggered a memory. The man before him was a cleanly shorn Polmeroy.

"*Bindu*?"

"It's the haircut, right?" Polmeroy said smiling. "No one likes the haircut."

"Where am I?"

Polmeroy ignored the question and said, "This is Colonel Thomas J. Tiernan, the top ranking officer of this facility."

The Colonel was silent. He stared like he was examining the most singular creature he had ever seen. It was unnerving.

"You are at the U.S. Army Medical Research Institute of Infectious Diseases in Fort Detrick, Maryland," said Tiernan, who talked deliberately, like he was talking to a child.

"USAMRIID," said Polmeroy.

"Do you know how you got here?" asked Tiernan.

"A plane, I think?"

"Military transport to be exact," said Tiernan.

"Do you know how long you've been here?" asked Polmeroy.

"A few hours?"

"Three months," said Tiernan.

He was stunned. "That's not possible."

"What's the last you remember of Arctowski Station?" asked Tiernan.

"Falling. I remember… falling."

"Falling where?" asked Polmeroy.

"I don't know exactly, just… falling." He thought for a moment and said, "Also, I remember… a face?"

"Whose face?" asked Tiernan.

He smiled; at least it felt like he did. For the first time a clear memory. "Templeton's."

Polmeroy produced a black-and-white photo and slid it in front of him. "This is a satellite photo captured by the SDLS office in Stroudsburg, France. Take a look, and tell me what you see."

The photo showed what looked like a gigantic island volcano, its deep crater taking up most of its buttress. "It looks like a volcano."

"It's not," said Tiernan.

"That's all that's left of King George Island," said Polmeroy, who recapped. Two different strands of nanomachines built for two very different purposes. The first strand—a red culture, derived from titanium-rich materials—was designed to spread like wildfire, a harbinger of global Armageddon. Its ultimate purpose: to devour the planet in a matter of days. The second strand—a blue culture, derived from aluminum-rich sapphire materials—was designed to spread person-to-person, like an air-born virus. Its ultimate purpose: to act as a so-called "assassin" strand, turning the infected into programmable androids.

Defeating the first strand turned out to be an act of sheer dumb luck, revealing itself in a very simple, fundamental form: electromagnetism. The nanomachines' onboard computers couldn't handle electromagnetism. While pure electricity seemed to strengthen them—something Polmeroy had witnessed first hand in the shed—an insignificant dose of magnetism proved catastrophic. The tiny machines malfunctioned in spectacular fashion.

Nishi was the catalyst for this miracle. When he wandered into the hot zone the alternating magnetic field generated by his AMF belt came in contact with the mass. It resulted in a chain reaction that knifed a path of blown circuitry through the interlocking molecules. Within minutes the syndrome was rendered harmless. It folded in on itself and disappeared within minutes.

Not so harmless was the aftermath.

While the blanket of electromagnetism rendered the syndrome inert, what was left in its place had all the stability of paper-mache. The syndrome had attacked almost the entire upper crust of the island. When it

collapsed on itself, a gigantic sinkhole formed. Most of the island was devoured.

"The result," said Polmeroy, tapping the photo, "this quarter mile deep crater. These photos were taken via satellite by the SDLS branch in Canberra, Australia. Their three-man team was among the first monitoring stations to record and identify what was going on—they were integral in helping us piece all this together. In his report, Dr. Dean, the head of that branch of the SDLS noted that so strong was the electrical anomaly that occurred when the syndrome imploded that it caused a temporary power outage in Canberra, thousands of miles from Arctowski Station. In subsequent surveys, every power grid that we've contacted south of thirty-degrees latitude—most of Australia, including Sydney, Argentina, Chile, Peru—all experienced slight to severe power hiccups at the moment of the event. That's unprecedented. To say the least, it was a spectacular show."

But it was a show with a steep price. In addition to destroying Arctowski Station, the catastrophe led to the destruction of research stations operated by Brazil, Russia, China, Chile, Korea and Uruguay. Ten people, including three Russians, a Brazilian and a Korean, were reported dead or missing in the wreckage, while another six—all team members at Arctowski—perished.

"Any questions?" said Polmeroy, looking at him.

"Who were the six, the six who died?"

Polmeroy glanced at Tiernan. They hadn't planned to release the information in this order, but there was no reason not to be straight. "The victims were Nishi, DeNardo, Templeton, Norman, and from the research team, Demry Sanderson. She contracted a derivation of the second strand and passed away on the medical transport."

"That's five… who's the sixth?"

"Most everyone stationed at Arctowski became sick from the second strain to varying degrees. I was in dry-dock three weeks. Kotuko-Sinclair's bluebots proved a sound treatment for most, but not a total cure-all as she'd hoped. Additional treatments were needed to pull everyone through—it was a real struggle for the medical staff. Not everyone made it. As I said, Demry Sanderson passed and…"

"Who is the sixth?" he said.

Polmeroy and Tiernan swapped glances, as if to say, "It's time."

"Who are you?" asked Tiernan.

"What do you mean?"

"Just what I said. Who are you?"

He was perplexed. He started to answer but stopped. It was not so clear. "I'm… Holden Ryan?"

"Are you sure?" asked Polmeroy.

He did not answer.

"Who are you?" commanded Tiernan.

"I told you. I'm… I'm…"

"Think about what I'm asking… *who are you?*"

"I'm…"

The two medics grabbed him by his shoulders. They stretched his right arm out on the table and rolled up his sleeve. Tiernan produced a surgical scalpel, and carved a long, deep incision into the patient's forearm.

"What are you doing?" he said. The cut did not bleed, but his arm started to quiver. The trembling spread from his arm to his torso, to his entire body.

"Who are you?" said Tiernan, his voice rising.

The man's entire body shook. The forearm gash closed. He began morphing. The medics backed away as

the transformation took place. His skin stretched and his frame shriveled. Within seconds, Holden Ryan was gone—replaced by the frail figure of a woman.

Tiernan kneeled. "*Who are you!*"

The woman sobbed. She stared at her long, slender hands as if for the first time. She remembered everything suddenly.

"My name is Brady Ryan."

Polmeroy and Tiernan watched from behind the glass shielding of the isolation suite as medics strapped Brady back in bed. They tried to sedate her with a standard dose of magnetism, but when that did not work, they again intubated. She was fed an even stronger and consistent dose.

"Why do you think she took Holden's form?" Polmeroy said.

"Shock? Fear? Missed him? It's hard to say," said Tiernan. "Fascinating, though. Her body had no idea of the metamorphosis it'd been through, no idea of its new powers. All her circuitry knew was that Holden was important, important for her emotional and physical survival, so it became him. Remarkable."

"Think she knows we're lying?" asked Polmeroy.

"About?"

"About Holden being killed in the biosphere?"

"Does it matter?"

"You saw her reaction. It was all we could do to restrain her. Aren't you afraid if she learns the truth she'll become much more unstable? If she has the slightest inclination he's still alive, who knows what she'll do. We know she isn't human. Does she?"

Tiernan shook his head. “Don’t worry. If there’s one thing machines won’t ever be able to do, it’s duplicate the human spirit. The programming protocol will be finished in the a.m., Colonel Basquit has promised. His team is working very hard, and has made up a lot of time. Until then, the magnetic treatments will keep her sedated.”

The thought didn’t brighten Polmeroy. “What’s wrong?” said Tiernan.

“Did you know Dr. Ryan had a funeral for her? He thinks she’s dead.”

“She is.”

“You know what I mean. He thinks the virus overcame her. That she was incinerated by acid treatments at McMurdo. Hell, we even gave him Demry Sanderson’s charred remains as evidence, told him they were Brady’s.”

“It’s a messy business, Bindu. You should know that better than anyone.”

He knew. That was why he had only a few more months until retirement. He looked at Brady. She proved to be a top-rate fighter when put in a pretty tough situation.

“What if we’re wrong, what if she still has feelings, emotions? What if the syndrome didn’t wipe all that away, but just absorbed it? What if she actually thinks, and doesn’t simply react—her brain a hybrid of mechanical and biological? What if she’s the same, just different… more evolved?”

“Better not let your superiors hear you.”

“I’m smarter than that. I know her value. If we train her—or should I say if we program her—we’ll have the atomic bomb of military intelligence. She’ll be able to go wherever she wants, morph into whomever she likes. She’ll be impossible to trace, impossible to identify. She’s suddenly our nation’s most precious… *asset*.” The word

rolled from his lips he'd taken a big gulp of Castor Oil. He promised himself it would be the last time to use the phrase. He looked at Tiernan, and said, "Better increase security."

"Already done."

"I mean bring everything you got. Call the Pentagon if need be. We better hope Basquit finishes that program before she starts testing her new powers. I don't think I'm up to the manhunt we'd have to mount if she escaped."

"Don't worry, she won't escape."

Polmeroy sat alone in the conference room, checking his e-mails on his Tablet PC. He opened one from CIA Director Richard Simpkins, entitled "Presentation." The one line e-mail read simply, "Your presentation is set, Tuesday @ 9 a.m. Be at the top of your game."

Polmeroy understood. Tuesday morning—about thirty-six hours from now—he would be at the White House to present the facts of this case, including recommendations on next steps, to the president. That meant the next day would be long. He would no doubt spend the bulk of it in Simpkins' office, preparing; bringing the executive director up to speed on the latest developments, including the newly discovered evidence that Stephen DeNardo was successful in selling at least one strain of nanomachines to a former Soviet republic. There would not be any room for him to develop short timers disease. His last few months would be full throttle.

As he shoved the Tablet PC in his briefcase, he came across Brady's file. Flipping through it, he opened a white envelope. Holden had asked the envelope be included with what he thought were Brady's charred remains, before they

were destroyed in a bio-containment lab. Polmeroy had resisted the temptation to look in the envelope, but his curiosity got the better of him. He opened it.

Out fell Brady's Locksley cross and a simple note that read:

"My dearest Brady,
*Studying the same doctrine,*
*Under one master,*
*You and I are friends,*
*See you white mists*
*Floating in the air*
*On the way back to the peaks.*
*This parting may be our last meeting*
*In this life.*
*Not just in a dream,*
*But in our deep thought*
*Let us meet often*
*Hereafter*
I'll see you at home, Braid.
— Love, Holden"

Polmeroy held the cross to the light and examined the Carnellian stone. Brady had called the cross her "security blanket." The legend said that when lost, the red stone at the center of the cross would illuminate and bring the bearer home. In the strange new world she had entered, she could use something with such magical properties. He slid the cross and the note back into the envelope and sealed it.

Packing up his stuff, Polmeroy walked out of the conference room. He headed down the hall and found the medic Brady had called Azure Eyes. "Dr. Stewart," he said. "Please pass this along to Mrs. Ryan at the appropriate time."

"Is that wise? Colonel Tiernan ordered no personal items."

"Yeah, it's okay. Tell her it was her husband's dying…" he stopped. He was tired of lying. "Tell her it was from Holden."

That night Polmeroy was awakened from a dead sleep at three a.m. by the ringing of his telephone. Answering it, he heard Tiernan's panicked voice.

"She's escaped."

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# ABOUT THE AUTHOR

Tony Fay and his wife, Emilie, reside in Plano, Texas. An avid runner, Fay has completed five marathons, however the Antarctica Marathon is still on his "to do" list. Fay worked for 12 years with the NBA's Dallas Mavericks, serving most recently as the club's director of communications. *Syndrome* is his first novel.