

# OUTBREAK

**THE DRACONIAN LEGACY  
BOOK 1**



R S JEPSON

## Prologue

4012 B.C

The Giza Plateau, Egypt

The Great Pyramid, the Pyramid of Khafre, and the Pyramid of Menkaure, as they became known in later times, glowed in the yellowing light of the setting sun as the desert air cooled. The polished white limestone casing stones reflected the sun's rays, illuminating the surrounding area as if they were massive light beacons.

The magnificent and powerful structures had stood for many thousands of years, from the era of 'The First Times', Predating all living memory as to their construction, their purpose was known and guarded by a select group of adepts.

A gentle breeze blew in from the south as a small procession of people strode out from the city to join the High Priest who had spent the day casting his magic for this special moment.

Ptahhotep raised his hands towards the sky. High priest, prophet and seer, he knew from his dreams the time was near. He stood alone inside a ring of flames surrounding the Star Stone and suddenly felt his skin tingle for the first time since the last visitation six cycles of the moon previously. All his body hair stood erect but he held no fear, this would soon pass. Outside his circle, through the flames, he saw the Pharaoh, Amenophis; surrounded by his counsellors - he was backing away.

*"Yes,"* thought Ptahhotep, *"Be afraid, young man. Never will you have such power as that you will soon witness."*

Amenophis was young, 17 years of age, and had ascended to power three moons ago when his father died. He had not been permitted to attend the previous communion with the gods.

Ptahhotep turned to face the Great Pyramid and at that moment its capstone began to glow and pulsate. The air vibrated, particles of sand danced at his feet as he held himself erect while chanting the welcome call. A blinding flash of light lit the evening sky and a ball of fire appeared above the pyramid. The flash dissipated but the apparition above the pyramid remained, now having the appearance of a star, for this is what Ptahhotep believed it was. The sound changed to a muted drone, the star moved away from the pyramid and descended to earth, setting down a thousand cubits from him. The light from the star diminished and the

noise reduced until all that remained was the silence and stillness of the desert. The star had deposited the ship of the gods on the sand; no longer shining it was now dark grey in colour, like an upturned eating bowl in shape. Its size was difficult to estimate, but Ptahhotep judged it to be at least 500 cubits in across.

He advanced towards the ship, passing through the ring of flames surrounding his sacred altar. When halfway to the ship he paused and waited, he knew what would happen next. He turned, beckoning the Pharaoh towards him.

A portal opened up in the side of the ship, a bright light shone from within, then he saw a pathway being lowered to the ground. As the Pharaoh arrived to stand behind him, Ptahhotep fell to his knees. Not in deference to the Pharaoh but as homage to the gods who were now descending from the ship. Three figures moved towards them, walking like men but he knew their faces would not be those of his own kind. The Pharaoh and his entourage knelt too, subsuming their power to one greater.

The visiting gods stopped before Ptahhotep, all were one or two cubits taller than any man present. They wore shimmering garments and their eyes shone with a bright yellow luminescence. They bore the overall physiognomy of men, but their skin was silver and grey with scales like those of a reptile, their noses were similar to a lizards, with two, small, sideways facing nostrils and they breathed with a gentle rasp.

“Greetings, my Lord,” said Ptahhotep.

“Stand up, all of you,” commanded one of the gods. “You have a new leader we understand?” Their diction was a stilted version of human speech, interjected with strange clicking sounds.

“Yes Lord,” he turned to Amenophis and whispered, “Step forward and greet your gods.”

Amenophis moved towards them with tentative steps. “Greetings, my lords.” He bowed his head. “I am Amenophis, earthly master of these lands.”

“Very well, I am Ank’iti, and this is Gangamet and Ric’ht’ic, we are the trinity taking care of, and watching over, you. This time we come with a different purpose. You must listen carefully Amenophis.”

“Yes my Lord.”

“New kingdoms require our intervention; you will not see us again.”

“Never?” said Amenophis.”

“Not in your short lifetimes. We will return again after a great many of your generations have passed, when your world is ready for us, when you have completed the work you are destined to do in preparation for that time.”

“You are abandoning us, Lord?”

“No. From our last visit, the women you presented to us are with child, with our progeny, we will continue to walk amongst you. The lineage will not die nor be diluted by further procreation.”

A chill travelled through Ptahhotep’s bones, his people had attempted cross breeding of animals, with some success, but interbreeding between man and the gods!

“Do not look concerned, they will be well. We came for one special purpose, to leave with you with . . . shall we say, a gift.” Ank’iti pressed a bracelet on his wrist and two further gods descended from the ship.

Carried between them was a grey, cylindrical container, twice the size of a man. It appeared to be made of a similar material to the ship and was decorated with strange symbols. They laid it down at a distance from the gathering and departed back to the ship. Ank'iti pressed the bracelet again and the sand around the object started to glow, then it appeared to melt. The box was swallowed into the earth.

Ank'iti spoke, "you must forget that object. It is for the time of our return and has powers you cannot control, certain to bring an end to your world. Mark my words well."

Without waiting for Amenophis or Ptahhotep to acknowledge, the three gods turned away and returned to their ship. Within moments it retraced its arrival path, settling over the pyramid and then disappearing with a flash of light and a thunderous roar.

Ptahhotep looked at the Pharaoh, he was trembling.

# **CHAPTER 1**

## **Interplanetary Transport Craft Virgo Low Earth Orbit 7th August 2032**

The communications transceiver came alive with static followed by a faint message, "Mayday, Mayday, Mayday, this is . . . "

The voice faded, then there was silence.

"Where the hell did that come from?" Commander Hugh Fraser sprang upright in his seat.

"Just searching now, sir." said Lucas, the communications officer, sitting in the co-pilot seat next to him.

"A ship or aircraft?"

"It came from somewhere nearby," Lucas.

"Out here! There shouldn't be anyone else around. The space station is on the dark side for a month, the Chinese have a vessel on the way to the moon and the Russian mission blasts off next week. Confirm?"

"That's all I've got, sir. Nothing on radar either. I'll run tests on the equipment." Lucas left the seat and moved to the master communications console.

"I'll check in with Mission Control," Hugh said, then he opened the radio channel. "Atlanta, this is the Virgo, we received an incomplete Mayday call. Nothing seen up here, please advise. Over."

"Hi Hugh, Felix here. We'll check it out this end. We heard nothing. Wait for a further call from us. Out."

Hugh's brow furrowed. He looked above his instrumentation through the viewing port and gazed into space. The vast blackness pinpricked by billions of stars, below that, the earth. He had never tired of the view through all his years as an astronaut. The sight of mother earth so far below always filled him with a sense of awe and wonder, and a sense of perspective on life. How small we are, he thought. Felix, would have loved it too. They had been at high school together before both going on to Yale. After graduating with equal distinction they joined the Space Academy. Felix was devastated when a rare, and otherwise innocuous, medical condition precluded him from astronaut training. He picked himself up and worked his way through the organisation to Flight Director. But there were always those times when the pain showed through. Hugh had seen it often while having a drink with Felix. The hunger to break free from gravity, the yearning to venture past the stratosphere, both would forever remain unfulfilled.

And now, what of the future? A strange new disease sweeping the planet. Rumours were rife of conspiracy theories and cover-ups. Hugh had heard it all before; the press took hold of something, sensationalised it, and then the masses were on the band wagon. Internet forums abounded and speculated; opinions and subjective viewpoint were foisted in the face

of facts. Whackos splurged their off-beat beliefs and influenced readers to look behind the obvious and create a whole new, distorted, reality.

Nevertheless, they should have been en route to Mars, but the voyage was on hold and for over a week they had been in low earth orbit. For reasons no one had made clear.

The communications crackled again. That'll be Mission Control, Hugh thought. Instead, a similar, perplexing message came through.

"Mayday, Mayday, Mayday, this is United States ITC Sagi . . . ," again, nothing more was heard.

"Hear that, Lucas?" said Hugh.

Lucas looked confused, "Yes sir." He sat down again next the Commander. "ITC . . . Interplanetary Transport Craft." It was both a statement and a question.

"Just what I was thinking. We're the first ITC," said Hugh. "No other vessel has ever had that designation, from any nation."

They looked at each other, both seeking an answer.

"Virgo, this is Atlanta Mission Control. Over."

"Felix?" there was an edge of concern in Hugh's voice, "anything your end?"

"Negative. We checked our recordings, nothing."

Hugh told Felix about the second transmission they had just heard, he was as mystified as Hugh.

"Continue monitoring, Hugh. You have free control of the ship, do whatever you have to."

"Including breaking orbit?" said Hugh.

"Anything. It'll help break your boredom anyway," Felix laughed. "Have fun. Out."

"So, what do we do now sir?" said Lucas.

"I don't know. I just don't know." After a pause he added, "check the playback, make sure they were saying ITC. This doesn't make any sense."

The Virgo continued her low earth orbit, 200 miles above the surface, at a speed of almost 17,500 miles per hour. The Interplanetary Transport Craft, ITC, was the final replacement for the Space Transport System, commonly known as the space shuttle. In common with the shuttle it was a reusable vehicle, but its electro-fusion plasma drive, developed in the early 2020's, precluded the need for external propellant tanks to provide the thrust required for lift-off. The craft took off from a specially constructed eight mile long runway in much the same way as any aircraft, reaching escape velocity in less than ten minutes.

At 190 feet in length and 110 feet wingspan, these ships were considerably larger; the hull was a similar size to the old Boeing 747. The format was identical to the STS though; the flight deck forward with viewing windows, crews accommodation behind and below, then aft of the accommodation, a research lab, and finally the last section, almost one third of the ship, was a massive cargo bay. Unlike the shuttle, which was designed for orbital missions, the ITC was capable of reaching the moon and Mars with a crew of up to ten personnel. Planned improvements to the drive and life support systems would further increase the range. The Virgo was the first of three ships, the second was due its inaugural flight in six months' time and the

final ship had recently begun construction.

The Virgo carried a core crew of five, the commander, co-pilot, two engineers and a communications/science officer. On this delayed mission were an additional four, all researchers; a biochemist, an astrophysicist, a biologist and a geologist. Their purpose was to lay the foundations for a permanently manned base on Mars. The ship held a vast payload of construction materials, oxygen and power generators, domestic facilities, food and plants. All the requirement to establish a self-contained environment for a tiny community of scientists.

Irma Randolph, the biochemist, climbed up the stairway from the crew mess area to the flight deck.

"Hey, Luke, you got a problem up here?" she asked, sliding her hand down Lucas's neck.

Lucas touched Irma's hand before returning his to the keyboard. "Not sure, we picked up an odd message, I'm running some tests." He told her all they knew.

"What do you make of it Commander?" she asked as she approached Hugh.

"No more than Lucas has told you."

"Sir, I'm getting some strange results here."

"Go ahead Lucas."

"I've run a series of tests, they all indicate the same thing. The signal originates from a point on our flight path. A precise, stationary point."

"That's crazy. Show me." The commander moved across to the communications centre and stood behind Lucas.

"Here." Lucas pointed to an area of the monitor. "We flew through it twenty minutes ago, just before we picked up the first message."

"There's nothing there!"

"I know, sir."

"We've got little more than sixty minutes before we complete the orbit and arrive back at the same point. We need to move fast. Get the co-pilot and chief engineer up here immediately."

"Aye, aye sir." Lucas pressed the transmit button on the internal communications mike. "Urgent message, Pete Bainbridge and Josh Kennedy report to the flight deck."

Hugh began slowing the Virgo down, within a moment Pete, the co-pilot and Josh the engineer entered the flight deck.

"What's going on?" said Pete.

"We need to hold geostationary orbit at this point," Hugh indicated the co-ordinates on the navigation display. "I want to be there on the next pass, I'll explain the situation as we go."

Pete settled himself into his seat, "it's going to be tricky in the time-scale, but I reckon we can pull it off."

"Get right on it Pete."

"I'm making the calculations already sir, commencing manoeuvre."

The ship pivoted slowly on her axis, maintaining the same course until she was effectively flying backwards and the plasma drive could be used to bring her to stop in the short time remaining. All personnel on board strapped themselves into seats and awaited the massive g-force. Now at 12,000 miles per hour, Hugh initiated the main drive. As the power increased the crew were forced ever harder into their seats until they were unable to move. The drive was

programmed to cut out a short distance from the target area when the speed would be almost zero and they could crawl towards it with thrusters. Enough thrust would be directed to counteract gravity as without speed the ship would begin to re-enter the atmosphere. Hugh felt every muscle, sinew and bone in his body being stretched or crushed, his vision became blurred. The skin on his face was pulled back tight against the cheek bones which formed his mouth into an involuntary grimace, saliva ran down his chin. Gradually the forces diminished, they had passed maximum deceleration and the output from the pulsar drive was reducing. Hugh regained control of his limbs, muscle by muscle, he felt like he'd been through a boxing match.

"Bring her back around Pete."

"Aye sir."

The Virgo turned again through 180 degrees under the effect of small thruster motors until she was facing the direction of travel, now at only 50 miles per hour.

"All sensors active sir, two minutes to target point, nothing seen or heard." said Lucas.

The flight deck returned to silence. Hugh looked around at the faces of the flight deck personnel. All were alert, on a knife edge, and with quizzical expressions. *This is going to come to nothing*, he thought. *An anomaly, a strange one yes, but that's all.*

"Target point reached, speed zero, maintaining geostationary orbit." said Lucas.

Nothing.

"OK," said Hugh, "we'll sit tight for now, a few hours perhaps. Coffee?"

"Sure thing sir, I'll get right on it." said Lucas.

"I'll do it," said Irma, "you might be needed up here."

She turned to walk down the steps to the mess deck but got no further than two paces before the radio began to crackle, static at first then something else. A tone, a single frequency which soon began to modulate. After a few moments it returned to static.

"That came from right here," said Lucas, shaking his head. "Right here, where the ship is, but not from inside it. It doesn't make sense."

The hairs on the back of Hugh's neck began to rise. He felt the tension all around him. He turned his head as the radio burst into life.

"Mayday, Mayday, Mayday, this is United States ITC Sagittarius, I repeat, ITC Sagittarius, Sagittarius. Anyone out there, over."

There was a pause.

"Mission control, Atlanta, do you read. Any vessel, do you read, over."

"What the fuck....." said Pete. "The Sagittarius hasn't even been launched yet!"

Confused, questioning looks were passed from person to person.

The same monotone signal as before started again, this time it increased in intensity and pitch until everyone was covering their ears. Lucas ripped his headphones off as an ear piercing sound went through them. The cabin lighting flickered and then a wisp of smoke came from an auxiliary power distribution panel followed by flames.

"I'm on it!" said Lucas.

He doused the fire with a portable extinguisher before the automatic system operated with the potential to cause further problems.

"Lucas, try transmitting back." said Hugh.

"But . . . there's nothing there."

"I know, it's bizarre. But we're receiving them . . . maybe . . ."

"I'll give it a go. Sagittarius, Sagittarius, this is Virgo, Virgo, over."

The radio was silent. Lucas repeated his transmission three more times. After five minutes the same Mayday message was received.

"Try again Lucas," said Hugh.

For an hour the routine continued, the Mayday coming through every five minutes and Lucas trying to reply. Suddenly there was a change.

"Virgo, Virgo, this is the Sagittarius. Thank God! Wherever you are, if you're receiving this, please hold your position and maintain contact."

"What the hell is happening!" said Hugh. "How can that be the Sagittarius?"

The rest of the crew appeared stunned.

"Is that channel still open Lucas?"

"Aye sir. But it's dead, no further communication since they acknowledged our call."

"We'll hold position as long as it takes to sort this out, " said Hugh. "I'll hand this over to Mission Control. Lucas, set up a dual channel, I want to talk to the boss but keep a listening watch for the Sagittarius, or whatever the hell it is out there."

Lucas turned a few dials and punched in some codes on his keyboard.

"Open line established to Mission Control, on your headset now sir."

"Thanks. Atlanta, this is Virgo, Commander Fraser speaking, I need to speak with the Flight Director, urgent, please acknowledge, over."

"Virgo, this is Atlanta, Commander Bradley is unavailable at the moment," a nonchalant voice replied.

"Dammit Atlanta, get hold of him, now! We have a situation."

"You have a problem with the ship sir?"

"Negative, we are OK. Just get hold of Commander Bradley for me."

"I'll do what I can sir."

Hugh leant forward in his seat and massaged his forehead with all his fingers. He was a man who came out on top in any situation, always in control. He had averted disaster on more than one mission and believed there was a solution to every challenge. 'Problem' was not a word in his vocabulary. But, trying as hard as he was, he could find no solution to this one.

He turned to his crew, "anyone got any theories?"

He faced blank expressions, they were waiting for him to take the lead. Very well, he thought, let's get these minds working.

"OK, the basics. First, how can a ship, not even crewed yet, be sending a distress signal? Second, how can a signal emanate from a singular point when nothing is there?"

"Well sir," said Lucas. "Assuming it actually is the Sagittarius, the only explanation I can come up with is a time paradox. We're picking up a message from the future."

"The future," said Hugh, with doubt in his voice, "and how would that work?"

"How, I don't know, but I can't see any other reasonable answer."

"And that is a reasonable answer?" said Hugh.

Lucas shrugged his shoulders, "unless you've got anything better sir."

Hugh didn't have anything better, he had nothing at all. He had almost mocked Lucas, and that was wrong. At least he had spoken up, and the idea, despite being farfetched, had some kind of logic. Time paradox. The more he thought about it, the more the idea grew on him. There was enough evidence, on a quantum level, that sub atomic particles could travel through

time. Radio waves? Maybe he had something.

"Maybe somebody is pulling an elaborate hoax," said Irma.

"Elaborate indeed. And what on earth for? I think we can rule that one out," Hugh replied.

"Just a thought."

"Virgo, Virgo, this is Atlanta. Commander Fraser please respond, over."

"Felix! Glad you could make it."

""What the hell's going on Hugh?"

Hugh updated Felix with the whole story.

"That's crazy! Sagittarius is still in the sheds with final systems being fitted."

"I know that Felix. That's the problem."

"You said they got back to you, you made contact?"

"Just once, then it went dead again."

"Sit tight Hugh, stay where you are, as the last message requested. We'll see if we can figure anything out at this end."

"Thanks Felix, we'd appreciate an answer to this one."

The call ended. Hugh relaxed, whatever was going on, the Virgo appeared to be in no danger.

"Well, that's it people. We stay here for as long as it takes. I suggest we carry on with normal duties and routines until.....well, something happens or otherwise. Lucas, set up an automatic continuous transmission on the Sagittarius's frequency requesting contact."

"Already done, sir."

"Irma, is there still an offer of coffee?"

"Sure, I'll get right on it Hugh."

Irma returned with the drinks. The second engineer came to the flight deck and word passed amongst the remaining scientist concerning the events. Over coffee they discussed possibilities. Brian Daniels, the astrophysicist, was called and asked for his views on the possibility of a time paradox.

"It's certainly within the bounds of what we know about space-time. The existence of time travelling particles has been postulated for years. In fact, some of the latest experiments actually require their existence to balance the equations. Also, it is believed that the latest quantum supercomputers are using time travelling particles in their processing, though nobody is quite sure how. It's a very grey area, mathematically and mentally."

"So Lucas could be on the right lines?" said Hugh.

"Quite possibly Commander."

By the time they had finished coffee, all theories had been exhausted. It was a mystery. The only theory that had any chance was that of time travel. Time travelling particle was believable, but complete radio messages was way beyond accepted knowledge.

Ninety minutes after the last radio transmission the set came alive again with the Sagittarius calling.

Irma remained on the flight deck. Hugh had given the scientists freedom to visit at any

time, so long as no complex manoeuvres were taking place or an emergency situation existed. She stayed now for two reasons; she was fascinated by the events unfolding and she enjoyed being close to Lucas. They had fallen for each other during joint training for the mission between the crew and the scientists. Both were considerably younger than the rest. Irma and Lucas were in their middle 20's and naturally gravitated towards each other. Their association began as purely social but Irma grew fond of Lucas's sense of humour, his pleasant smile and boyish good looks. He was gentle and had an understanding nature. His powerful intellect closely matched hers. Their blossoming relationship caused consternation among the higher echelons of Mission Control, including Felix. But as long as they kept all displays of physical attraction out of the workplace, a blind eye was turned. Hugh had no such concerns so long as it didn't affect their work or anyone else's, they were mature enough to know where to draw the line.

"Virgo, Virgo, this is Sagittarius, Sagittarius, do you read? Over."

The message was repeated twice more.

"Fascinating!" said Brian. "Exactly the same spot, one orbit later."

"What?" said Hugh.

"They must have done an orbit, ninety minutes since their last message, incredible."

"But there's nothing, nobody, out there!" said Lucas. "The ninety minutes must be coincidence."

"We'll see," said Brian.

"I'm going to try to contact them again," said Hugh. "Sagittarius, Sagittarius, this is ITC Virgo, Virgo. Commander Fraser speaking. Over."

"Virgo, Sagittarius. This is Captain Hank Newbury, hello Hugh. You may not believe what I have to say but you must listen to us. I don't know how long we can hold communication; it may only be for a few minutes every orbit. If you hold your position we can at least talk every ninety minutes." The signal began to fade periodically. "What we have . . . vitally important . . . of mankind . . . please . . . our instructions."

Irma became unsteady on her feet; a feeling of nausea overcame her then an intense headache.

"Irma, are you OK?" said Lucas, standing up to steady her, "what's wrong?"

"I . . . I don't know, a weird feeling came over me."

"How are you now?"

"I feel sick and I've got a blinding head ache, I need to lie down."

"Take her down below Lucas, look after her," said Hugh.

Irma was pleased it was Lucas who was looking after her. She felt awful, but was comforted by his hands guiding her down the stairwell. He held her close as he lead her to her bunk, then gently lowered her down onto it.

"I'll get you some water honey."

He returned and propped her up with his arm while offering the water to her lips.

"Thank you," she said. "I'll be fine now."

"I'll stay with you for a while," he bent and kissed her forehead. "I need to take your temperature."

"I just want to sleep."

"Go ahead, I'll be here."

Irma closed her eyes and as she did so the headache eased a little. She felt the touch of Lucas's hand holding hers and then she began to drift off. Soon she was in a vivid dream, much of which didn't make sense but there were things she would relate to later. A swirling pattern formed in her mind which morphed into a complex protein molecule. She saw first an alpha helix; this grew until she could see the primary structure of amino acids. Something was being pointed out to her, a minor change in the structure. Though minor she had an overwhelming feeling that it was of great consequence.

On the next pass of the Sagittarius more information was exchanged, including the time zone the ship was in.

Lucas had left Irma for a few minutes, anticipating the next opportunity for communication.

"We were right Lucas, you and I. They are in July . . . the year . . . 2033. Next year!" said Brian, with glee.

"Wow, this is one major head fuck!" replied Lucas.

"A colourful way to put it, but true, my friend."

Lucas returned to Irma who was now awake.

"I had the strangest dream," she said.

"Tell me in a minute, but first listen to this. The Sagittarius is saying that she is broadcasting from wait for it..... July 2033!"

"Oh . . .my . . . God!"

"What?"

"I'm scheduled to be on that trip!"

## **CHAPTER 2**

### **Central Angola**

**April 2032**

Under a starlit sky, unpolluted by artificial light, a large tent was sited on the outskirts of a small village in central Angola. A single oil lamp illuminated the interior which was strewn with scientific instruments and paraphernalia.

The hum of a laptop cooling fan, and the regular deep breathing of the solitary individual occupying the shelter, were all that disturbed the intense quiet.

The bearded man sat motionless on a folding chair, a fedora hat was pulled down low over his brow and covered his eyes. He was not asleep but in meditation.

The laptop sounded a new message, from Naomi Foster to Jed Stone, he ignored it.

Jed Stone was the Chief Scientific Officer of the International Emerging Diseases Program of the Centers for Disease Control. The rest of his team were encamped three miles away; he needed solitude and space.

Over the past days he came close to formulating the antidote and vaccination for Pousettes Virus, a mutated form of a benign disease endemic in cattle. But the human strain was devastating.

In recent months it had killed over three-thousand people, incapacitated tens of thousands, and threatened to spread to neighbouring Zambia and the Democratic Republic of Congo.

The symptoms began as a common cold, lasting about seven days, then evolved into a fever accompanied by necrotisation of bodily tissues, including the brain. Victims suffered intense pain until it reached the brain, then they went mad. It appeared to be fatal in roughly twenty percent of cases. The rest recovered, usually with some disability, often severe. It was a terrifying disease and the population lived in daily fear. The government had locked down the central part of the country and closed its borders.

As the disease took hold, the international community intervened to aid the Angolans. First on the scene was Jed and his team.

Jed had a track record of combating and annihilating diseases, with recent success working against MNPS and the Gollan virus, both were almost eradicated.

He was an unconventional character, in part by choice, and in part due to his extraordinary mind. His brain worked in a novel way. He excelled in problem solving, using what he termed an 'internal mind-mapping software suite' which he had been aware of since a

young age. He had a passion for old cars and motorcycles and owned a classic boat. But he wasn't a purist, he used modern technologies, many of his own devising, to make improvements; his 1960s muscle-car achieved over one-hundred miles to the gallon with almost zero emissions.

An attractive man in his early forties, he dressed in a style more befitting an anachronistic university professor. He was an adventurer, a pathfinder, a genius, and women loved him.

Naomi foster was one of those who had fallen under his spell. Their intimate liaisons had become increasingly regular, except during the past four months while he had been in Angola. It was nothing more than a physical relationship; or so they thought.

Jed eased out of his meditation, stretched, and then performed qigong for the next fifteen minutes. By the time he finished, his mind was clear. He saw the next stages in his quest. He wandered over to his laptop and picked up his messages. The only one of importance was from Naomi, she was coming to Angola the day after tomorrow.

Jed had called on her assistance to aid in one aspect of the research, Naomi was his nanotechnology and biochemistry specialist. He had reached a impasse where he needed her knowledge to push forward. Her email ended with a single 'X' after her name, which spurred a stirring in his loins at the thought of their last time together. But that wouldn't distract from the work they had to do.

He closed the laptop and poured a large glass of burgundy.

The team assisting him in Angola were not his, they had been sent at the behest of the World Health Organisation, a body he didn't hold in the highest esteem, but he found himself on good terms with the scientists.

He decided to call them.

"Hey Frank, Jed here. I've got some ideas to work on tomorrow. I'll be over first thing."

"Okay, Jed. Anything you need?"

"Get the plasma bath warmed up and I'll take it from there."

"No problem. Enjoying your night?"

"Yes, it's peaceful out here, just tucking into a nightcap."

"Enjoy," said Frank.

"I will. By the way, my colleague Doctor Naomi Foster is arriving Wednesday morning. Thought I'd better let you know for provisioning."

"No worries, Jed, I'll make arrangements tomorrow."

"Thanks, good night."

Despite his reservations, Jed got on well with Doctor Frank Campbell. He was an astute

and intelligent Scotsman, proud of his heritage but passionate in his work for the good of mankind. They performed well together.

Jed sipped his drink while mulling over his ideas. He was on the right track, he was sure. It had to work before the disease spread. But as he wrote out formulas on a pad, he still came to the same 'wall'. He needed Naomi.

He cast the pen aside, rose from the chair and refilled his glass. There was nothing more he could do but relax. At the entrance to the tent, he leant against the post supporting the doorway and gazed at the village a mile distant. It was silent now, but earlier the population sang and danced even though the disease was already taking hold. They were afraid, yet tried to carry on as normal. The Angolan's had faced many hardships over the past decades, but their spirit could not be crushed. He admired them. Jed had made many friends in the village in his time among them, it gave a personal edge to his work, he wanted to save them.

There was a chair outside, and he sat down. The drink was taking effect and giving a brief respite from his thoughts of the challenge ahead, during a crisis he found it difficult to switch off. He drew the night air into his lungs and relished its unique smell. He loved Africa, every part of it; the landscape, the flora and fauna, and above all, the people. If he could settle anywhere else in the world, this would be it.

It was nearly midnight. As he finished his last glass of wine, he sent a quick email to Naomi. She would help him relax.

Early the next morning, Jed prepared for the short trip to the main camp. He gathered his research papers and his laptop, little else was needed, and made a pot of coffee. Presently a young man appeared.

"Good morning, Hanameel. fancy a coffee?"

"Yes please, Jed."

Hanameel sat down next to Jed while he poured a cup.

"How are things in the village, Han?"

"Much same. More get sick."

"I know. I'm working on it and believe I'm getting close to a cure."

"It is well. We are afraid."

"I'm sure."

"Is there anything you want me do while you're away?"

"No. Han. Just look after the place and help yourself to anything you need." He smiled.

"But go easy on the drink."

Han's face lit up with a grin displaying an immaculate set of white teeth set against his dark skin.

"I will only have . . . how you say, a tippie?"

"Okay." Jed patted Han's shoulder. He finished his coffee and stood up.

"I must be going, Han. I'll be back tomorrow night I think, with a guest. A lady."

Han's eye's sparkled. "Nice lady?"

"Very nice."

"Good. I make to tidy up then."

"Thanks, Han. Just be careful with the equipment."

"I will."

"See you tomorrow then."

Jed dumped the bag containing his work onto a spare seat in the All-Terrain-Vehicle he used for short journey's, started the engine, then drove off after a wave to Hanameel.

Hanameel was his unofficial security guard, employed to look after the tent and its contents. The village people were trustworthy, he had no doubts about that, but his concern was for those driven by curiosity, especially children. Hanameel was also well-educated, and Jed was happy that he spent the time there reading scientific publications. Despite his basic English, he always regaled Jed with facts he had discovered when he returned. Jed was happy to listen, pleased that Hanameel had learnt something.

The day was warming up as he approached the main camp. This consisted of two containers joined together, a mobile laboratory which formed the main research centre. Besides this, there were half-a-dozen tents of various sizes which provided accommodation for and eight scientists, including Jed, and messing facilities. They also had a dedicated cook.

He pulled up and switched of the engine. The camp was just coming alive as people went about their morning ablutions. The smell of a cooked breakfast emanated from the catering tent.

The first person he came across was Professor Ken Picard.

"Good morning, Jed."

"Morning, Ken."

"I hear you've made some progress?"

"Some, but I don't think I'll get any further until Naomi arrives. But there are more tests I can do today."

"Okay. We'll get the team together and run through what you've got may, a bit of brainstorming may throw up some new ideas."

"Possibly."

Jed doubted they would. He respected the other scientists, but they were no match for him. If he couldn't see the solution, then he was sure they wouldn't. The missing link needed a different way of thinking.

"I'll arrange a meeting for after breakfast." Said Ken.

"Right," said Jed. He greeted others as he met them and made his way to the lab.

Jed set up his laptop in the corner of Lab 1 and set out his written notes on the work surface. He perused his latest ideas and checked that Frank had warmed up the plasma bath. He also powered up the gene constructor/editor and the polymerase chain reaction generator.

He was ready to begin when Frank appeared.

"Meeting is in five minutes Jed, Lab 2."

Jed was itching to make progress but knew the value of the daily meeting, and he had his own input to give. He grabbed a cup of coffee and went through.

Frank began the meeting.

"Gentlemen, to recap on the situation. We have now been here almost four months; we have made little progress. In that time, we have seen the disease progress further afield. I believe Jed has some new ideas to throw into the mix."

Jed nodded.

"First, I would ask Derek to bring us up to date with his latest research."

Derek stepped up to the front.

"Good morning all. Since relocating here, we have made a little progress. This village is one of its latest frontiers. It gives us the advantage of working on carriers and those affected at different stages of the development of the illness."

"We have confirmed new facts concerning the virus. It is indeed spread by the *Aedes Aegypti* mosquito from cattle. There are no other vectors involved. We have determined it is an ancient virus which has recently mutated and is of the type Filovirus. It is not dissimilar to Ebola in structure but behaves very differently. We have yet to identify its route into the host cell, no protein receptor has been found at this time. Worryingly, though I cannot yet confirm with complete accuracy, the spread of the disease is accelerating and so is the rate of development once it has entered the host. In other words, it is continuing to mutate. As it spreads through more people and increased numbers of mutations take place, it could change its means of transmission."

"You mean it could become airborne?" Frank asked.

"It is a risk, yes."

"That would be catastrophic," said Helena, a Finnish virus specialist.

"It would," said Derek. "Which is why our lack of progress concerns me."

"Anything else?" said Frank.

"Yes, this may be of benefit to some areas of research. We have identified increased cytokines production in victims. As I'm sure you're all aware, this is an important signaling protein in the immune system. But once the level reaches a certain point, the virus is killing off this protein."

"So, it is compromising the immune system," said Helen.

"More than that, I would say it is actually inhibiting it."

"These are worrying facts," said Frank. "You have told us much about how the virus works, and its history, but is there any progress at all in finding a cure?"

"I'm afraid not, Professor. I do not think that is possible until we understand fully its mode of operation. I have nothing more."

"Jed," said Frank. "have you anything to add?"

Jed rose and moved until he was standing in front of the other scientists.

"Thank you, Frank. Yes, I do have more information. I have been analysing the DNA sequence and yesterday performed several polymerase chain reaction experiments, looking specifically at T-cells. Last night I reviewed the data and saw a potential weapon for us. I believe we need to create a customised, synthetic cytotoxic T-cell."

"But the T-cells are being destroyed," said Derek.

"Yes, they are," said Jed. "What I am talking about is building from scratch; a new T-cell to introduce into the host, one that cannot be killed by the virus and will instead carry coding to attack the virus."

"You mean creating a living cell by genetic engineering, including coding the DNA?" said Frank.

"Yes, I do. Piece by piece. That is why Doctor Foster is coming tomorrow. She is a nanotechnology specialist as well as a biologist. I have also been working on some new techniques before this crisis and have trialed a novel type of cell and gene constructor, working with quantum mechanics. The machine I invented is not perfected but the theory is sound. I believe this will give us the fastest and most reliable course towards a cure."

"What do you need from us, Jed." said Frank.

"I need the full genome of the virus."

"We almost have that," said Derek.

"Also, the signaling mechanism and its code, and we must identify the protein receptor it uses in the host cells. I will deal with the rest."

"That's a tall order at our present stage of research, Jed."

"None of it is impossible, there is an answer. I have seen it."

"What do you mean."

"I can't explain further," said Jed. "It's the way my mind works. I have already seen the outcome, but not the details."

"Very well, gentlemen," said Frank. "I suggest we get to work. You know what Jed needs. Ken and Helen work on that angle. The rest of you, continue your current research."

"I will help Ken and Helen when I can," said Jed. "By the way, I wanted to clear something up."

"What's that?" said Frank.

"It is clear to me that when we achieve a workable cure, there will not be time for Phase One Clinical Trials. Not without the potential loss of thousands of lives. There can be no delay."

"There are protocols, Jed. I would need to clear that with the world medical council."

"Damn them, I will trial the drug," said Jed.

"You may have a fight on your hands there, my friend."

"So be it. You know what this does to communities as well as people. I intend to move as soon as we have a cure."

"You sound confident."

"I am."

Jed continued his work. By mid afternoon, Derek delivered the full genome of the virus. This was an important step, but more was needed. It gave a complete picture of the virus from which Jed could figure its operation, but he needed to know its route into human cells.

He tied the genome information into his existing work and began to formulate a brand-new human cell structure through computer simulations. This technology was one of the latest developments in bioengineering and Jed had taken a keen interest. His specialisation was the DNA, the software. Naomi's was the mechanics and cell structure; the hardware. He made progress but came to a halt. Nothing more could be done without knowing the entry point of the virus, but he had something which Naomi could work from.

Jed toured the lab, briefly looking over people's shoulders. He tried not to disturb them; all were deep in concentration.

He stopped at the workstation of Professor Ken Picard and Doctor Helena Johansson. They were attempting to identify the human cell receptor protein, to Jed the most vital next step. He waited until they eased back from their work.

"Hey, how's it going?"

"We've been out into the village this morning and taken fresh samples from those infected. We're getting close but we're missing something."

"Do you mind if I take a look?"

"There's a lot to get through. But if you want to see, it's all here. We're going for a coffee break, so help yourself."

"Thanks."

It took Jed five minutes to see the central thread of their work and another ten to get a handle on it. Most of what they were dealing with was in his frame of knowledge.

He speed-read most of the documentation, and the bulk became locked into his photographic memory. Then he saw something, a calculation. He reviewed the work again

the put it in context.

Jed began to flick from screen to screen, processing all he saw and building up his mind-map of the data. He went back to the calculation which attempted to express the sequencing of a protein molecule.

He found the error just as Helena and Ken returned.

"Found anything, Jed," said Helena.

"Yes. Here." He pointed to the screen. "There's an error in this calculation. You've used  $\pi$ , I believe it should be the replication factor of the protein your examining, gamma globulin."

"Let me see," said Ken.

After five minutes, ken looked at Jed and Helena. "Good grief! How could we have made such a basic error. Thanks Jed."

"My pleasure."

"I guess this an example of your genius mindset," said Helena.

"Oh, I don't know, perhaps just a fresh set of eyes was all it needed."

"Your modesty is legendary, Jed."

Helena was genuine in her appreciation of Jed's efforts and once again he found her attractiveness beguiling. Her long and wavy blond hair framed a gentle face set with large, deep blue eyes. She had the body of a model. He cast the thoughts aside, Naomi was due to arrive in the morning.

Naomi; what was it about her that turned his thoughts away from other women? They had been to bed together a few times, a casual fling, he thought. She was physically stunning, but her mind also attracted Jed. They had lain in bed one morning and discussed deep issues of science and philosophy and this excited him, ending up with them making love again. Her mind was in tune with his. He looked forward to her arrival.

At the end of the day, progress had been made but nothing definitive other than the virus' genome sequence. Jed tried to modify some of the equipment to mimic the experimental device at home and had some success. He emailed Naomi with instructions for some final parts he needed to make the machine work. The theories involved were in their infancy and Jed had kept abreast of all developments. He believed a close reconstruction of the device would aid Naomi and himself. It was clear they would be on their own in this aspect, the rest of the local team appeared to have no knowledge of this new technology.

He closed the workstation computer and gathered his notes and laptop. With Naomi's imminent arrival he doubted it would worth doing any more work today. He intended to stay at the main camp this night and socialise with the other scientists. Tomorrow would be

different; he and Naomi would stay at his outpost discuss work and . . . he had a good feeling there would be more than work involved.

He joined the rest of the team in the mess-tent where the cook was serving up what turned out to be a delightful vegetable risotto, most of the ingredients sourced from the village, followed by an exotic fruit salad.

After the meal they all retired for drinks and set a circle of chairs around a campfire. Jed partook of his regular drink, neat bourbon. determined to relax for the evening. As alcohol loosened tongues, conversation began to flow.

Jed was an outsider to the rest of the team and questions were soon forthcoming about his past. Much of that wasn't a secret, he had been featured in the national press on several occasions.

"How long have you worked for the CDC, Jed?" Doctor Brian Kelly asked.

"Most of the past twenty years, since graduating. Though I spent three years working for Medecins Sans Frontieres, collating data about, and studying the epidemiology of the Zika virus."

"You eventually succeeded in eliminating it, well almost," said Brian.

"We have all but crushed it, but I wasn't the only one responsible."

"Come now, Jed. All the accolades went to you."

"On behalf of myself and my colleagues."

Brian smiled. "If you say so."

The drinking continued until close to midnight. All had been working hard without a day off for several weeks and most were too weary to carry on. One by one they said goodnight until only Jed and Helena remained.

Jed was relaxed after several glasses of bourbon but felt oddly uncomfortable in her presence. In times past he would have taken a chance, allowed his natural charm to shine through, and see where it led. Now something was different, perhaps he was changing with age: it had to be more than the thought of Naomi joining them in the morning.

"Just the two of us left then," she said.

"Your English is remarkably good," said Jed.

"My parents were multilingual, and I studied at Cambridge for two years, then lectured there for one year after gaining my Master's degree."

"Ah, I see. You must also understand the culture too, quite different from America."

"It is. Very quaint in many respects."

She was looking studiously at him.

"You're a very attractive man, how come you never married?"

"I never seem to have the time to get attached to anyone, I guess. I become too absorbed in my work."

"Obsessed?"

"Maybe."

"But suppose you found someone similar and who understood that?"

"What, and didn't have time for me either?" Jed laughed.

Her eyes smiled at him and penetrated his guard.

"Don't worry, Jed. Another time, another place, I may have been after you. But you have a friend coming tomorrow, word on the grapevine says you have something together."

Jed almost choked on his drink. A few intimate, clandestine meetings. Was it that widely known?

Helena stood, walked to Jed, and kissed his cheek. "Goodnight, Jed."

"Goodnight."

Jed had a final check of his emails before bed, and smiled when he saw one from Naomi;

"Arrived Quatro de Fevereiro International Airport, Luanda. Tiring flight, booked into hotel.

See you in the morning. Naomi X."

All thoughts of Helena evaporated.

## **CHAPTER 3**

**British geological Survey  
Keyworth  
Nottingham  
April 2032**

Peter Yates poured over the documents which Vincent Dale had pushed towards him across the conference table.

"A newly discovered magnetic anomaly, nothing unusual in that. But this one is pulsing?"

"That's correct, Peter. It's been confirmed by every pass of the Envisat satellite for the past week."

"No ground observations have been made yet?"

"That's the purpose of this meeting, I want to set up an investigation. At the site."

Four people were gathered around the table at the offices of the British Geological Survey. All had copies of the same documents. Vincent had requested the meeting and hoped the evidence put before the small committee would convince them that the anomaly was worthy of exploration. Professor Peter Yates, as Director of International Affairs, was the key decision maker but needed the support of the Chief Operations Director, Dr Russell Collins and, naturally, the Head of Finance, Jenny Olin. Both were present.

"Egypt," said Russell, "what resources would you need, we have to bear in mind cost."

"Quite," said Vincent. "I would need an airborne magnetometer, the use of a helicopter, and ground transportation. Everything else would be done at the site with standard kit and some excavation equipment."

"And personnel, Dr Dale?" Jenny asked.

"Myself and one assistant, Dr Warren Franklin," Vincent replied.

"Have you considered asking locally based geologists to take a look and feed back to you?" said Russell.

"If you would care to peruse the data closely there are many facets which are strange, to say the least. We've already spent days processing the data, trying to figure it out. I want to get on top of it, there could be some remarkable discoveries and I think any accolades should go to our organisation."

"What do you mean, strange data?" said Peter.

"If you look at the charts on page ten, for an example. The magnetic field pulsations are not random, there is a variable pattern, like a signal."

"I see what you mean. Interesting."

"You mentioned excavation equipment?" said Russell

"Yes, the data suggests the source is ten, maybe twenty feet, beneath the surface."

"You mean the source is that localised?" said Peter.

"Indeed," said Vincent, "it appears to be an object."

"An object! Fascinating. And in that location, 200 metres south of the pyramid of Menkaure on the Giza plateau," said Peter.

Vincent believed he was winning them over after the last revelation. Their curiosity had been aroused and with it the desire to raise the organisations profile. A high visibility public relations exercise would help secure funding. He could see Jenny scribbling notes onto a tablet computer. Bean counters, he thought; the bottom line to them was always cost, not the advancement of science. Vincent and Warren had a further agenda. Both were in their early thirties and after years of grinding away at the job on regular assignments they were looking out for something to add their names to history.

"I suggest," said Russell, "that we adjourn for lunch, that will give us all time to read Vincent's document. I suggest we reconvene at two o'clock?"

There were nods of agreement from all present. Vincent made his way up two floors where he found his colleague, Warren Franklin.

"Hey Vince, you look happy. Good result?"

"It's not in the bag yet, we've taken a break to give them chance to read our report, but it's looking good."

"We've got to get out there, Vince."

"Leave it to me, they've already got their eye on the carrot, publicity. They'll come around."

"Fancy a bite to eat in the canteen?"

"Why not."

Over lunch, Warren and Vince discussed the project, it had become an obsession in only a few days. The most exciting thing they had worked on for years; such odd data, an enigma.

"Do you think we'll get all the equipment we need?" said Warren.

"I think so. I gave them the basic requirements, I'll add the rest when they take the bait. Nobody raised any issues, even Jenny,"

Warren laughed, "if we can get past her then it's all go."

"This could be the big break for us, never mind the BGS. Of course, they'll have to take some credit, but if we play out cards right you never know; Nobel Prize?"

"Maybe, but a bit early to say, it may be nothing."

"Come on Warren, look at the data, nobody has seen anything like this before. Just think of the scientific papers we could write, new theories perhaps. Whatever it is, there could be rich pickings for us."

"What gets me is the data indicating it's an object, we may be out of our field. It could be a job for an archaeologist."

"We can always bring in other specialists if necessary, so long as we keep control of it," said Vince.

"There is that option I guess."

"Well, time to get back and see what they say."

"Good luck."

Vincent returned to the boardroom, he was the last to arrive.

"Welcome back Vincent," said Peter. "We've now had chance to digest your report and

I must say, we are curious. I'm pleased to say we have agreed to your request and encourage you to leave as soon as possible. We want to get there before anyone else."

"Of course," said Vincent, "my thoughts, exactly." He was surprised they hadn't required further persuasion.

"We'll clear the operation with the Egyptians through the normal channels," said Russell. "Though we'll give them a bogus cover story, too many other people would jump at the chance to look at this if they get wind of it."

"Thank you," said Vincent. "I agree, we should try to keep the lid on this, at least for now."

"I'd like a full list of the hardware you require by noon tomorrow, for costing," said Jenny. "I trust you've already given us the basics?"

"There are a few minor additions to make, I'll get it all to you tomorrow."

"I'll also meet with you tomorrow Vincent, after you've seen Jenny, to iron out the logistics," said Russell. "And bring your associate, Dr Franklin along too."

"Certainly. Will there be anything else?"

"I think we're all finished." Professor Yates looked at the other attendees for confirmation. "Very well. Good luck Vincent, keep us updated with regular reports." He stood up and shook Vincent's hand. One by one they all left the conference room. Vincent was anxious to tell his friend the good news.

Warren was overjoyed and keen to make a start when Vincent told him about the positive outcome.

"There's nothing more we can do this afternoon, let's celebrate!" said Warren.

"Good idea, any suggestions?"

Vincent knew all about Warren's 'celebrations', but knew he needed to wind down.

"There's a good Indian restaurant not far from here. We could start there then head out for a few beers."

"Count me in, let's go."

Over the meal and drinks they talked at length about their plans for the mission. Each was curious and anxious to find an answer to the anomalous data they had been collating.

By the end of the evening, spurred on by their excited talk, they had consumed far too much beer. Keeping the thread of conversation on track was becoming difficult, they were getting side-tracked and sloppy in their thinking.

"I think that will do for tonight," said Vincent. "It's been a long day. I've got more work to do on this tomorrow."

"You're right Vince, I've had enough to drink."

They left the bar and walked back to their hotel.

"Are you coming with me tomorrow to sort out the equipment?" said Vincent.

"You bet! What time are you going over there?"

"That old crow Jenny wants our requirements by midday, I'll get there by nine. We'll talk to Russell first, he acts as head of procurement for jobs like this. We'll sort out what we can get from him, then hit her with the costs. She'll have kittens over this one." he laughed.

"She can't veto anything though?" said Warren.

"No, it's all been approved by those higher up the pecking order. As long as we're reasonable, and we are, more or less," he smiled, "we'll get what we want."

"I'll see you for breakfast about seven then."

They said goodnight and went to their rooms at a nearby hotel. Vincent knew he was going to struggle to make it in the morning, he was an occasional social drinker, and he hadn't drunk like this for a long time.

The following morning Vincent was half an hour late for breakfast. Warren was already tucking in to a full cooked breakfast, an empty cereal bowl sat on the table next to his plate.

"Hey Vince, I thought you weren't going to make it!"

Vincent's head was reminding him of the previous night and his stomach objected to the smell of bacon and eggs. He marvelled at his friend's stamina and his bright cheery face, he couldn't believe he had sunk eight pints of Guinness along with a bottle of wine with the meal.

"I don't know where you put it Warren, you look fresh as a daisy. I feel like going back to bed."

"Get some food down you mate, you'll be fine. Here, have a coffee then get yourself a good fry-up."

Vincent's mind and stomach balked at the idea of fried food. But after two cups of coffee he was brave enough to attempt it and soon felt the nausea dissipate. His stomach stopped turning and his headache had reduced to a dull throb.

"Come on Vince, we'll get another pot of coffee and sit in the sun lounge. We've half an hour to kill before we leave."

Vincent sipped coffee and read a newspaper, slowly he began to feel normal again. Meanwhile, Warren was attempting to chat up two young girls, student types, at an adjoining table. After a few minutes they left and Warren returned.

"You never stop! A bit young for you weren't they?"

"Ah, just a bit of fun, got to keep your hand in. Come on then, we'd better get going."

They made their way to the office of Russell Collins. Russell welcomed them in and they all sat around his desk with a view to his computer monitor.

"Let's begin," he said. "What are your complete requirements?"

"I've itemised everything and printed the list," he rummaged through his briefcase and extracted the paperwork. "I was going to email it to you but we didn't finalise it until late yesterday." He handed the document to Russell.

"That's OK, my secretary will put it on the system once I've approved it. Now, let me see."

Russell perused the list, he raised his eyebrows a few times causing some concern to Vincent. He then turned to his monitor and brought up the equipment lists that the society had or could procure, including their costs.

"This isn't going to come cheap guys. Most of it is fine, but a forty foot container as a portable lab, to be delivered to the site? That will need to be airlifted to get it there in the time scale. We have one in Cyprus but we'll have to ask our friends in the RAF or the USAF to deliver it. I can pull some strings. And then there's your request for a helicopter. How many days?"

"Only one," said Vincent. He was becoming nervous. "To carry the airborne magnetometer."

"Can't you do that from the ground?"

"Possibly. But the data suggests we carry out a wider search of the area. It would take days on the ground. The magnetometer can be transported in the container."

Russell tapped some keys. They could see he was checking the availability of items and pricing everything up. He hit the enter key and let out a sigh.

"This had better be good," he said.

"I'm sure it will be," said Vincent.

"Look, I *am* behind you with this. I studied your report last night, every word. I know we must do it."

"So, we're clear to go?"

"It's our most expensive project since the earthquake monitoring in Indonesia last year, but yes."

He tapped the enter key again.

"There, I've endorsed it."

"Thank you Russell, you won't regret this," said Warren.

"Well, you guys had better run down to the Finance department and sign for the project expenses. I'll start the procurement process and we'll get you away, probably the day after tomorrow. I'll be in touch but good luck anyway, make it a good one." He shook hands with Vincent and Warren.

Outside the office Warren said, "I thought we were losing it for a moment there."

"Me too," said Vincent. "Right, Jenny Olin is next."

They entered Jenny's office after passing the desks of her minions. She looked at them with eyes that would turn lesser mortals to stone.

"This is a bloody expensive project you boys have dreamed up!"

*Shit*, thought Vincent, *anybody would think it's her money we're spending!*

"Sign here," she commanded, pointing towards a dotted line on one document, "and here."

Unexpectedly her face transformed into a broad smile, "good luck boys

Within 36 hours Vincent and Warren commenced the first leg of their journey on-board a Euro Airways flight from London to Athens International Airport. The Indian Aerospace Ganges K1 aircraft banked hard to the right after take-off and climbed rapidly to 50,000 feet as it commenced its ninety minute journey.

India had surpassed America and Europe in the aircraft industry five years ago. The Ganges K1 was the successor to the earlier Ganges J1 which had broken all records and expectations. The K1 was state of the art, plus some. So far ahead of the competition that senior management at Boeing Industries publicly predicted the collapse of their business. Rumours from Europe told the same story of impending demise.

Comfort levels were five star, not that it mattered, the aircraft were so fast with their neutron drive one had barely time to rest before the plane landed.

Arriving at Athens airport they had little time before their connecting flight to Cairo. This journey was made on what Vincent thought was rather quaint old Boeing 791. One of the few remaining aircraft to be powered by jet engines, a dinosaur. Less than one percent of transportation on the planet now ran on fossil fuels.

In Cairo Vincent hailed a taxi to take them to the Aldon Hotel, in sight of the pyramids. After adjusting to their new surroundings and unpacking their minimal personal effects they searched out the bar then eased themselves into the most comfortable seats they could find, and relaxed. The remainder of the day was theirs to do as they like.

"I'll get the next round in Vince, same again?" said Warren.

"Cheers. I'll be a couple of minutes, just going to get my laptop."

"OK mate."

Vincent returned and opened up his computer. "I'm going to check my emails, see if everything is sorted out"

Warren leant back and took a mouthful of beer, "I hope we can make a start tomorrow."

"Me too."

"Ah, here we are.....brilliant! It's all go. Russell has pulled some strings with the Forces, the container will be on site the day after tomorrow, by midday. "

"So we can't start until then?"

"No, the helicopter charter is tomorrow, and they're getting the rest of the kit, including the magnetometer here with it. We can do the first survey tomorrow morning. Then we can find out exactly where to set up camp. We need to be back at the airport for nine in the morning. It'll take about an hour to rig the gear up."

"Great stuff!" said Warren, "I didn't want to be stuck around here doing nothing. Though there are some delightful female tourists around!"

"I'm sure you could have occupied yourself then," Vincent laughed.

"Well, I could have tried, at least." Warren smiled.

They spent the remainder of the evening drinking and talking, their excitement was building to a new high. As the sun began to set and bathe the great pyramid in an orange glow with hints of purple they retired to bed.

Vincent wasn't quite tired enough to sleep and tried to still his mind by reading the latest novel he had acquired on his e-reader. It had the desired effect and after two chapters sleep began to overwhelm him. He put the device aside, laid his head on the pillow and dreamt of success, fame and glory

Early the following morning they arrived at Cairo airport, anxious to make a start, and found the office of the helicopter charter company. After struggling to communicate with the secretary, who only spoke Egyptian, enough information was passed between them to find their aircraft and their pilot, and to discover that their equipment was being held by Customs. After the initial chaos caused by the language difficulties, they found the correct crates at the Customs warehouse and transported them to the hangar of the charter company. They began to rig the electronics inside the helicopter, ably assisted by the pilot who spoke good English. He had an unkempt look with long, straggly hair and a stubbly growth of beard that indicated a missed

morning of shaving. He wore shorts and a cut off denim jacket with badges belonging to a both a local flying club and a motorcycle club. Vincent was concerned by his appearance but his fears were soon allayed by the confident and articulate way the pilot spoke. Also he displayed a deep knowledge of his aircraft and was invaluable in indicating the correct power supply sockets and attachment points for the brackets which were to hold the sophisticated Magellan Earthscan Mk 6 Magnetometer; the very best they could get their hands on. It was on loan from the Cambridge University geology department. How on earth, Vincent wondered, did they have better equipment than the Society?

By lunchtime they were ready to go. They put on headsets to enable them to talk to the pilot and gave him the instruction that they were ready. He took off, after clearance from the control tower, and sped over the city. Vincent had given the coordinates of the area they wished to survey to the pilot. He was enthralled by the scenery, the awesome majesty of the Great Pyramid approaching from the port side, but had no time to dwell upon it as he performed the final calibrations of the equipment, which could only be done once airborne.

The pilot slowed to a ground speed of 30 knots as he approached the search area, then followed the back and forth zigzag pattern that Vincent had given him.

Vincent and Warren's eyes were now fixed upon the array of meters, screens and computers, all connected with an apparently haphazard spaghetti of wiring. On the third pass, each separated by 100 meters, they began to pick up the anomalies first relayed by satellite. They looked at each other with a boyish glee. After completing the entire search Vincent asked the pilot to revisit certain parts of the flight pattern, places where their instruments had recorded the most unusual results.

"This is fantastic!" said Warren. "I've never seen anything like it."

"Me neither," said Vincent, "nothing in all the text books has prepared me for this. We'll do another complete sweep to make sure we've got everything. Did you get that Alexis?"

"Yes sir, one more time around, no problem," said the pilot.

After the final leg Vincent said, "I think that will do. We've boxed it in nicely. It looks like we've isolated it to one spot, though I can't imagine why we have the weaker areas outlying it. We'll call it a wrap, get the gear boxed up ready for return then get back to the hotel and begin analysing this lot."

"Good plan Vince. I could do with a beer but I'm going to lay off until I've got my head around this."

The helicopter landed back at the airport, they disembarked and Vincent thanked the pilot for his precise and steady flying.

"You have coffee with me?" said Alexis.

Vincent looked at Warren who indicated his approval.

"Sure, we need one," said Vincent.

"Follow me," said Alexis.

He led them to the mechanics office and tea room. Three technicians looked up, smiled and greeted Alexis, he was obviously popular. The men stood up and shook hands with Vincent and Warren, after wiping them on their overalls, the Alexis asked one of the three to brew the coffee. The mechanics dress sense was in the same league as Alexis', but again it was soon clear that these men were professional and knew their job. Vincent enjoyed meeting them, only one spoke English and Alexis translated for the others as humorous observations and remarks

were passed between them. One enquired as to the purpose of their trip and the reason for all the equipment. Vincent explained that it was complicated seismographic research and the questions ceased.

Alexis offered to refill their cups but Vincent was impatient to retrieve the equipment and return to the hotel and start work. They dismantled and repackaged it all after removing it from the helicopter, relabelled it, and then returned it to the Customs building for passing on to the courier company and return to the UK. On leaving, Vincent and Warren thanked Alexis again and called in at the office to sign the receipts, Warren was especially keen to say goodbye to the secretary and was disappointed when she told him she was married.

“Come on Warren, you old dog, there’s work to do,” said Vincent.

“You know I can’t resist a pretty face,” Warren smiled and patted Vincent shoulder.

Carrying three laptops between them they found a taxi at the airport entrance which drove them back to the hotel. Once there they went straight to Vincent’s room and extracted the laptops.

“First thing we need to do is get all the data onto one machine and back it up on one of the others. You’re the computer whizz Warren, away you go.”

“I’ll have it done in twenty minutes.”

Vincent supplied Warren with tea as he connected the computers together, established file sharing and opened and swapped databases.

“You really are a geek, aren’t you Warren?” Vincent laughed.

“Amongst other things, result of a miss-spent youth,” Warren replied.

Warren tinkered away while Vincent paced the room, yearning to get his mind on the data.

After precisely twenty minutes Warren said, “all done. I’m good eh?”

“OK, I’ll admit I couldn’t have done it, not so quickly anyway. Come on then, let’s have a look.”

They huddled around the screen of the largest laptop and Vincent navigated his way around the information. He brought up programs to collate the data so that most of it could be seen in graphical format. There was one for strength and fluctuation of the field, another for its frequency analysis and another for measurement of the terrain, its composition and depth. This last information was used to make corrections to the other data allowing for the attenuation and signal variation caused by the sand.

“Can you make anything of the outer, more distant readings?” said Warren.

“Nothing at all, minor fluctuations but it’s all centred on the main anomaly. Look! We’re picking up large fragments of glass surrounding it.”

“Superheated sand?” said Warren.

“Most likely, but how? It’s so localised. And there’s more. The centre of the anomaly is buried at a depth of eighteen feet, but there’s something else above it, small, maybe about two metres long and half a metre wide, some kind of stone or rock. I’ll try to analyse it.”

Vincent manipulated some figures and brought up a spectral analysis chart.

“So what’s it made of?” said Warren.

Vincent frowned, “I don’t know. Let me check again.” He verified and re-entered the data, “the data was right. It doesn’t tally with any known compound.”

“A meteorite then?”

“That’s the only explanation. But meteors always contain elements that are common throughout the universe, the elements in this I don’t recognise, they shouldn’t exist.”

“Let me have a look,” said Warren. “You’re right, I can’t figure it out. I’m going to get another coffee, want one?”

“Go on then.”

Vincent tapped away, leaving the unknown rock he concentrated on the main object. The data was much cleaner than the earlier records from the satellite and he focussed on the variations in the signal strength and frequency, trying to find a pattern. On a hunch, he ran the data through an encryption program. He transferred the data to the software, set the parameters and hit enter. In less than a minute it produced its results. Warren was just approaching with the drinks as Vincent suddenly pushed his chair back, almost knocking the cups out of Warren’s hands.

“Christ!” said Vincent.

“What!” said Warren, “let me see. Shit! Damn the coffee, I need a drink.”

“Me too,” said Vincent, his hands were shaking. “It’s more than a signal, it’s a code!”

The next day Vincent and Warren picked up their rented all-terrain vehicle and drove to the site guided by the way-point Vincent had programmed into his GPS. Once there he placed a marker at the exact location of the anomaly. They were approximately half a kilometre south of a line joining the Great Sphinx and the Pyramid of Khafre.

There was nothing to do now but wait for the laboratory container and the mini excavator to be delivered. They returned to the vehicle to sit in the comfort of the air-conditioned environment.

“It looks like the first package is arriving,” said Vincent, pointing to a vehicle in the distance.

The low-loader crawled along the sand and altered course slightly. It must have just spotted them, Vincent thought. It drew up beside them, bouncing gently on its balloon tyres which kept it riding high on the desert sand, and then came to a halt. The driver dismounted from his cab and Vincent left his own vehicle to meet him. The driver spoke no English but by his sign language it was clear he wanted to know where to deposit the excavator. After Vincent showed him and he lowered the rear end of the trailer and then drove the excavator off onto the sand. With a thumbs-up sign and the same from Vincent he returned to his cab. The truck, with its empty trailer, pulled away and faded into the distance.

Another half an hour passed, both were becoming restless waiting to start their ultimate investigation. Suddenly Vincent heard the distant sound of a helicopter. He left the vehicle and looked out towards Cairo, shielding his eyes from the sun. He saw a speck in the sky, a twin rotor helicopter with something slung beneath it. *That’s it*, he thought, and felt a brief surge of adrenalin.

The aircraft was with them in less than a minute, again Vincent indicated by hand and arm signals where the load should be dropped. The pilot lowered the container until it touched down softly on the ground. Vincent released the suspension cables and the aircraft swung away and was gone in an instant.

They now had everything they needed and set about work. First they inspected the container, a standard 13 metre cargo holder with heavy internal modifications and a couple of windows.

Vincent opened the door to the fully equipped geological laboratory. After a quick look in drawers and cupboards, satisfied it was fully stocked, he moved through to the second half of the container. Here was rudimentary living accommodation, a small kitchen, a table and chairs, and four bunks. Another small compartment to the rear was divided in two. One part was the toilet facilities; the other contained the generator, electrical distribution panel, and the air-conditioning unit and heating system. Vincent checked the generator, it was fully fuelled. It had been some years since he had used one of these self-contained labs, the BGS owned three. All were essentially the same and it wasn't long before he remembered how everything worked. He started the generator, switched all the power through the distribution board, and energised the air-conditioning unit. He had spent many nights living in these units, comfortable enough, but with the hotel four kilometres away there was no need to rough it. Nevertheless it would give them pleasant rest and catering facilities during the days.

"All powered up, ready to go, Warren?" said Vincent.

"You bet!"

"Let's do it."

They began to excavate. Warren drove the machine and the first metre went quickly, and as they dug further nothing was revealed until they made contact with a strange lump of rock. After that they became more precise, skimming off shallow layers then examining by use of hand tools and instrumentation. With painful slowness the pit grew in depth until they were almost at the indicated depth to uncover the first article. One more layer was removed and then Vincent began probing using the good old fashioned method of a metal rod. The rod hit something hard, half a metre down. Now came the hard work in the ever increasing heat; digging by hand.

After half an hour back breaking work with shovels, the tip of the rock came into view. They put down their shovels and knelt to inspect it. They couldn't determine if the composition was metallic or stone, it shimmered like metal but felt like rock. They used trowels to dig further around it and brushes to remove sand from crevices. As the sand was cleared away they saw that the crevices were actually symbols, or writing. Neither were experts in ancient hieroglyphs but they bore no similarity to anything they were familiar with.

Confident there was nothing else surrounding it they used the excavator again to remove the bulk of the sand around it. Reluctantly they took a quick break, returning to the air-conditioned lab to cool down and re-hydrate.

"We'll hoist that obelisk, or whatever it is, out with the excavator, rig some strops around it," said Vincent.

"It should come out easy enough," said Warren. "We need to get photos of it and pass it back to the Society. They need some specialist on it, it's way beyond us."

"I'll have to make a full report to Russell tonight anyway. But this on its own will keep him happy. It'll show him we're really onto something. I'll send off the spectro-analysis of it too, I'd like to know what we're dealing with."

"Me too. Ready to carry on?"

"Absolutely!" said Vincent.

They extracted what did indeed appear to be a small obelisk and placed it on a pallet. Using brushes and an airline they finally had it completely clean and examined it closely.

“These look like stellar representations,” said Warren.

“Yes, the solar system is here look, that’s unmistakable. Then there are further depictions, other stars and, by the looks of it, planets.”

“Amazing. There’s plenty of evidence that ancient civilisations had advanced knowledge of astronomy, but planets outside our system is something else. And what about the other inscriptions too?”

“Yes,” said Vincent, “a continuation of the first ones we saw when we uncovered it. I believe it’s a language or code. I’ll get some pictures of it.”

He retrieved a camera from the lab and walked around the object taking shots of the whole object from different angles and then close-ups, showing every symbol and marking on its surface.

“I think that’s going to give some people sleepless nights,” said Warren.

“I’m sure you’re right. I’m pretty knackered, it’s nearly seven, fancy calling it a day?”

“I’d love to carry on but we’ve done enough today,” said Warren.

They man-handled the obelisk into the lab and secured all their equipment inside. After ensuring they had the laptops and camera, they locked up and then drove back to the hotel.

Vincent compiled the report for Russell and attached the photographs, recommending they were passed on to the relevant people for analysis as soon as possible. He then took a shower before joining Warren for a drink in the bar where they discussed how to tackle the next stage tomorrow. A lot more digging was required according to their information regarding the depth of the remaining object. After the extraordinary find today, completely unexpected, they speculated wildly on its origins and what they might find when they reached the principle object. They were convinced that what they were dealing with was unprecedented.

After the discoveries of the previous day, Vincent and Warren had contemplated what might lie further down in their excavations. Vincent’s original interest lay in the belief that the magnetic anomalies were unusual but the result of something explainable within the bounds of known science; an unusual rock formation with strong magnetic characteristics, perhaps an ancient volcanic deposit of ferrous magma. He thought his expertise as a geologist was the correct specialisation to investigate. Now he wasn’t so sure.

Under the influence of a few drinks they had begun to speculate that the artefact was of an extra-terrestrial source, produced by an alien intelligence, and the remaining object could be of the same provenance. Those theories seemed no more off-beat now than they had the night before.

As they drove back to the excavation site in the morning, Warren was the first to broach the subject.

“How do you feel about what we talked about last night?”

“Which part?” said Vincent.

“The bit about alien artefacts.”

Vincent was quiet for a moment.

“Thinking about it now, I still stand by what I said. It’s a valid theory, how else do we explain it? I haven’t got a clue what we’re dealing with here. I’m hoping someone, somewhere, can come up with an answer.”

“You still think we’re the right people to deal with this?”

“Hell yes! This could be the big break we’ve been waiting for. Look, if this whole thing is extra-terrestrial, nobody has any expertise. We approach it as scientists, questioning and basing any theories on empirical evidence.”

“I’m with you all the way on that Vince.”

They approached the site and parked next to the laboratory container. Vincent felt excitement but also a touch of trepidation. They were venturing into the unknown, would he soon find himself beyond his depth? They could always stop and bring in other expertise; the merest mention of what they had found so far would bring other organisations rushing in. But he wanted it for himself.

He unlocked the lab and entered. In the middle was the obelisk, and the reality of their discovery hit him as once again he looked at the strange inscriptions. He carried on and walked through to the end compartment to restart the generator and power up. They set up their laptops in the lab and established internet connections. Vincent checked his emails, there was nothing but a confirmation from Russell that his report had been received and it would be passed on for further analysis.

“Let’s get started then,” said Vincent. “We’ll do some more digging.”

They walked out to the excavation; an overnight breeze had partially refilled the pit, ten minutes with the digger would clear it.

“Same as yesterday, I’ll drive the machine?” said Warren.

“If you don’t mind?”

“Nah, I like big toys,” Warren laughed.

Vincent carried an ultrasonic scanner and used it to survey the pit. There were still a couple of metres to go before they reached the main object so he let Warren commence digging. As the hole grew deeper they had to widen it to prevent the sand pouring back in and two hours elapsed before Vincent called a halt. He slid down the slope to the bottom of the pit and prodded with his pole. It touched solid matter less than a metre down. The excavator was close to the limit of its reach, it would just make it to the bottom and he instructed Warren to take a few gentle scoops out. He checked the depth after each one. Finally they were down to using spades again to uncover the object.

As they dug it revealed itself as something of a much more uniform shape, a perfectly round cylinder nearly a metre across. Any remaining thought that it was a natural formation went out of the window, this had been manufactured, and to a high level of accuracy.

Reaching a state of fatigue, as they had yesterday after digging, they retired reluctantly to the lab to rest and drink. A few minutes had passed when Vincent’s phone rang. From the screen he saw it was Russell.

“Hi Russell, have you got anything for us?”

“What the hell have you guys got out there? This place is buzzing. No one here has a clue what to make of your data. I’ve had to pass it on to other organisations.”

Bugger, Vincent thought. “What organisations?”

“First, the Metallurgy Department at Cambridge, then the Euro Space Agency and last

the International Physics Research Agency. I tried to hold back but this needs outside help. I wanted to give you extra time but the boss got hold of it and insisted. I'd give it another two days and you'll be swamped by other agencies, at worst you'll be pulled out. So, do the best you can. We, you, will still get a lot of credit for it."

"Sod that. This was all my idea. I picked up the odd data from EnviSat to begin with, nobody else saw it!"

"I know that Vince, I'm sorry. I'll try to stall anyone else from going out there; I'll tell them you need to finish your work first, then they've got free reign."

"OK, thanks Russell, we'll do what we can. We're almost ready to extract the main object."

"Good luck Vince."

"What's going on Vince?" said Warren.

Vincent relayed the call.

"I reckon we'll be finished before anyone else gets out here Vince, we'll have our data and be ahead of the game."

"Guess you're right, it'll take them a few days to get mobilised."

They were soon refreshed and went on to tackle the rest of the dig with a new motivation; they were working against the clock. Two hours of digging in the afternoon sun was stressful but they carried on, both determined to prevent their discovery from being hijacked by other organisations.

By late afternoon the object was almost uncovered, a cylinder about two metres long. It was covered in similar inscriptions, though these were aligned with greater accuracy.

With the excavator they raised it out of the pit and, like the obelisk, laid it on a wooden plinth, resting on its long edge. Both were exhausted and covered in sweat. They each drank several glasses of water and poured several pints of it over their heads and bodies. The hard work was done.

Vincent retrieved a hand held magnetometer from the lab and scanned the pit, nothing, but it went crazy when he moved it around the cylinder.

Using soft brushes they removed the remaining sand and dirt from the surface of the cylinder. When it was clean, Vincent ran his fingers over the inscriptions as though he was caressing a baby. Suddenly, a humming sound came for the cylinder. Then the noise changed to an almost mechanical whirring sound.

Vincent leapt back from the artefact as the noise continued.

"What the fuck is happening now!" said Warren as he too took a step back.

"I don't know, but it sounds like a motor or something."

The noise stopped.

"Perhaps it responded to your touch?" said Warren.

"This is getting a bit spooky. Hey look!" Vincent pointed towards the lab.

"Something is on fire in there!"

"No, I don't think so," said Vincent, walking towards it.

He stood at the door and was stunned to see the obelisk pulsating slowly with a bright

yellow light. They both stood and stared. Gradually the light ceased and it returned to an apparently inert state.

Within a few seconds the object outside began to make the same sound again then stopped.

"It seems like these things are interacting!" said Vincent. "I'm going to take another look at it."

"Be careful Vince, I've got an uneasy feeling about this, we've got no control over what's happening."

Vincent ran his hands over the inscriptions again, immediately it began its humming and whirring sound. He could sense a gentle vibration. Suddenly there was a loud crack and the sound of rushing air. A line appeared on the artefact's shell, it began to widen and Vincent froze as two doors opened laterally along the length of it.

"Bloody hell" said Warren.

A mist, like water vapour, spilled out.

"Watch yourself Vince, that could be a gas."

"It's OK, I'm sure it's just steam."

The vapour dispersed and revealed numerous cylinders within, about 15 centimetres long and 4 centimetres thick. They looked like glass and appeared to be filled with a red liquid. Vincent's heart was pounding.

"Come and look Warren!"

"Wow! What are those? There must be a couple of hundred."

Gingerly, Vincent picked one up, "it looks and feels like glass."

"I don't like this Vince, if this is alien it could be contaminated, anything."

"Yeah, I guess we've reached the end of our work here. We'll get photographs, measurements and all our records, then hand it over to someone else. We'll still make something of this for ourselves."

He was still holding the glass tube, rolling it around his fingers.

"Maybe you'd better put that down Vince."

"You're probably right....shit!" he dropped the tube which smashed onto the casing of the object and broke open. The liquid spilled onto the sand and a few splashes fell on their boots.

"What the hell happened?" said Warren.

"The thing became red hot in my hands, in an instant!"

"This isn't good Vince. I think we need to get these boots off, we've no idea what that stuff is. Come on, there are spares in the lab. Leave these ones here."

"Maybe we should get a sample."

"Just leave it Vince!"

They removed their boots and socks, and then abandoned them with the cylinder.

"We'll get cleaned up and then start cataloguing all the information," said Vincent. "I'll get a full report of to Russell and let him know the situation. We need some chemists out here."

They spent two hours gathering all the information they needed before heading back to the hotel. They weren't sure what to do about the cylinder, in the end they threw a tarpaulin over and secured it with rocks.

"Not very scientific," said Warren.

"It'll have to do for now. I'll see what Russell says, but we'll come back out tomorrow and secure this lot properly."

"Ready to go, then?"

"Yes, a good day's work."

Back at the hotel they typed up the report while enjoying a few beers.

"That's everything," said Vincent. "Photographs, data, and a full description of the glass phials."

"Including the fact you dropped one?"

"Yes, that as well."

"I'm worried about that."

Warren and Vincent were exhausted after finishing their report. They ate a meal in the hotel restaurant and then went to the bar for a night cap. By the time they were ready for bed, both were feeling unwell.

"Vince, I'm going to get an early night, my guts aren't so good."

"That's funny, I'm the same. I feel a bit like throwing up."

"Me too, maybe it's the food we've just eaten." said Warren, holding his stomach.

"Unlikely, I know we're in Egypt but food poisoning is almost a thing of the past. When did you last hear of anyone getting it from a hotel, anywhere?"

"True. Well, I'm going bed."

"Me too, it's been a long day."

Overnight both were sick, rushing off to the toilet on more than one occasion. By the time they met in the morning the nausea had worn off but they had aching limbs and slight increases in temperature.

"You look as bad as I feel," said Warren.

"Tell me about it. Are you fit enough for a trip out to the site, tie up the loose ends."

"Yeah, think I'll be OK."

They drove out to the excavation site, unlocked the cabin and powered it up. Everything was as they left it, except for one thing. They saw an orange stain on the sand around the object containing the phials.

"What the hell is that," said Warren.

"I don't, know but I don't like the look of it," said Vincent. "I want to get a look under the tarpaulin."

"Don't go near it Vince."

"I'm not going to. I'll get that long pole and do it from a distance."

After juggling off two of the stones which held the tarpaulin down, he peeled back part of the cover. The whole artefact was covered in the same orange red colour. Vincent fetched a pair of close range binoculars to get a better look without approaching too close, and then focussed them.

"It looks like some sort of growth, a plant or fungus. That's quite a rapid spread since yesterday."

"I really don't like this Vince. Something scares me about it. We've already deduced

this thing is probably alien. We busted one of those phials yesterday, we've no idea what they could contain, it's spreading some growth or whatever, and we don't feel well. We got exposed to that stuff. I know we didn't seem to get any of it on us, but maybe we breathed something in? I think we need help, both with what's here, and for us, a medical check-up."

"You're right Warren, we've lost control here. I didn't go so far as saying that in the report to Russell, but we'll get back and let him know the full story. And I agree, we'll get to the hospital. We'll leave the artefact well alone, but secure the rest of the gear before we leave."

"Let's make it quick then," said Warren. "This is giving me the creeps."

"We'll leave the obelisk in the lab, that seems innocuous enough," said Vincent.

In twenty minutes they were ready to depart and drove back to the hotel. The excitement of the venture had been displaced by concern and both were touched with an element of fear, realising they had exposed themselves to something possibly dangerous.

In his hotel room, Vincent called Russell direct on his satellite phone and explained the developing situation, the growth from the artefact and that they believed it was getting out of hand. He told them they were going to the hospital for a check-up and would let him know the results as soon as possible. He made it clear that whatever their condition, another agency needed to be involved, suggesting a bio-chemical fast response unit.

"I'm with you on that Vincent, I know exactly who to contact, we'll have a team out there within hours. You went too far too quick Vincent; I really hope you've just picked up a flu bug or something."

"I'll call you from the hospital as soon as I can." Deep inside, he knew Russell was right; they had taken a lot of risks in their drive for results and accolades. He hoped they weren't now paying the price.

"I'll call ahead there for you; let them know what's happened, get the right people to you."

"Thanks Russell."

They ended the call and Vincent told Warren about the plan for a specialist unit being sent out.

"That's good. Come on then, let's get ourselves checked out."

On the way to the hospital Warren noticed lesions on his lower legs, "shit Vince, look at this." He rolled up his trouser leg.

Vincent checked his own legs and to his horror saw the same red sores, oozing fluid, on his own legs.

"Bloody hell, I'm the same," he said, looking at Warren with a worried frown.

They reached the hospital reception and gave their names to the woman at the desk. Fortunately she spoke English. They told her their problem and while doing so a middle aged doctor appeared in a white coat, he wore glasses and sported a greying beard. He approached Vincent and Warren and spoke in fluent English "Dr Dale and Dr Franklin?"

"Yes," said Vincent.

"Ah, good. I am Dr Barak Petrakis, I have been told your story, an urgent call from your friend Dr Collins in the UK. Please come with me."

"Russell told you about us?"

"Yes, I think he is worried about you."

"You speak good English Dr Petrakis." Warren said.

“Yes, indeed. I studied for many years in your country, including my medical studies into rare diseases; hence I was fascinated by the call from your colleague.” He walked at a hurried pace until they arrived at a small ward.

“We will take your details in due course,” he continued. “But for now I would like to run some initial tests.”

Vincent told him of the latest changes in their illness and showed him his leg.

“Mm, interesting,” said Petrakis. “Even more reason to put you in an isolation ward. Now, please, if you would take off your clothes and put on these gowns. I will return soon” He handed them each a loose fitting, pale green, hospital gown with ties at the sides.

“I get the feeling,” Warren said to Vincent, “we could be in for a long stay.”

“We’ll see,” said Vincent.

“What about all our stuff at the hotel, personal gear, our laptops?”

“We’ll sort that out if it comes to it.”

Over the course of an hour, Dr Petrakis, with the assistance of a nurse, took urine and blood samples, measured blood pressure and heart rate, and performed a general overall body check. After the rigour of the examinations they were allowed to relax while Dr Petrakis went off to get the samples analysed.

During the two hours before the doctor returned, both Vincent and Warren began to deteriorate. The feeling of nausea returned and the lesions on their legs spread another few inches.

Dr Petrakis returned with a fretful look on his face.

“Well,” said Warren, “any idea what we’ve got?”

The Egyptian doctor paused before answering. “We don’t actually know, we are running more tests. Now we would like to do complete body scans. It will not take long. I see the condition is getting worse,” he said with concern looking at their legs. “Do you feel any discomfort?”

“We both feel a little sick, but there is no pain in our legs, a slight itch, that’s all.”

“Wait here,” said Dr Petrakis.

Within moments, two orderlies entered, wearing protective masks and each pushing a surgical trolley. They indicated that the patients should lie down on them. Vincent and Warren obliged and were rushed to the scanning room where they underwent MRI, CT and thermal imaging scans. After completing these they were returned to the ward, given food and told to rest. Neither found the ability to relax. Whatever they had contracted was being taken very seriously and yet they had been given no information. Dr Petrakis returned after a short time, he had found some English language books and magazines for them. They were grateful for this benevolent action as there was nothing but Egyptian language channels on the television.

“Thank you Dr Petrakis,” said Vincent.

“Please, call me Barak. We are all doctors; I think we should be on first name terms.”

“Any results yet, doc?” said Warren.

Barak spoke as if he hoped they wouldn’t ask that question, “not yet, we’re working hard on it, and we have passed information to the Egyptian University of Medical Research.”



## CHAPTER 4

### Angola

Despite his hitherto casual approach to his relationship with Naomi, Jed spent his after-breakfast coffee time scouring the horizon for the first sign of her. He knew she would leave her hotel early and wasn't disappointed. Just before 9.30 he saw a dust trail in the distance as a vehicle sped across the rough track leading to the camp. Work could wait another half hour.

Though unlikely, it could have been anybody on the road, but soon he could make out the unmistakable sight of her flowing auburn hair and then her smiling face. He felt a sudden rush of anticipation.

The old Land Rover came to a halt at the entrance to the camp and Naomi stepped out. The driver was an old Angolan man with a fixed smile and an agile gait. He unloaded Naomi's two bags from the rear, placed them at her feet, bowed to her and then made to depart. All four wheels spun as he gunned the engine. They found grip, and with a friendly wave he drove off.

Jed ambled up to Naomi and gave her a kiss then picked up her bags.

"Good flight out?"

"Not bad, Jed. A long wait at Nairobi for the connecting flight though."

"Have you had breakfast?"

"A little snack at the hotel."

"I'm sure there will be something left here. I'll have a coffee while you eat, and we can discuss progress."

"Sounds good to me."

"I'll just run your bags over to Helena's tent."

"Oh . . ."

"What?"

She gave an alluring smile. "I thought we may pick up where we left off a few weeks ago."

"And where was that?" Jed smiled.

She gave his arm a playful punch.

"You know damn well what I mean, Jed."

"I guess so. I have a tent set up a couple miles from here, my place of contemplation. I thought we may have a romantic evening out there."

"Now you're talking."

"First, there's work to do."

"Of course."

The cook put together a good breakfast for Naomi and Jed sat opposite her at the table with a pot of coffee.

"Did you get the parts I asked for?"

"Got them all. An odd collection, what are you up to?"

"Just something which may help in our research. But most of all I need your expertise."

"In what area."

"As I said in my emails, I need you to construct a new cell from the ground up, with certain special features."

"The killer T-cell?"

"Yes. There is more work to be done by other members of the team, but we have enough to make a start."

"I'm intrigued. I think the best way ahead is for me to spend the morning going through your notes first."

"My thoughts too."

Naomi finished eating and they took a fresh pot of coffee to the lab where Jed introduced her to the rest of the team.

Jed led Naomi to his work area.

"Here are my written notes, everything else is on the laptop, oh, and this."

"Mind-mapping." She smiled.

"Naturally. You know the way I work."

He refilled their cups and put a hand on her shoulder."

"That's nice," she said.

"You feel tense."

"Just the long journey."

"I'll give you a massage later."

"Mm, that would be good. Right, I'd better get on with this."

"Do you want me to leave you to it?"

"Probably best. But stay close by in case I have any questions."

"Will do."

Jed decided to take the opportunity to look in on the other scientists to see how they were progressing. It was early in the day, so he didn't expect much, but stopping by Ken and Helena's workstation he discovered they had made a breakthrough.

"Hey, Jed. You'll be interested in this," said Ken.

"What have you got?"

"We were looking in the wrong direction," said Helena. "Its vague similarity to the Ebola

virus caused us to search for a similar mechanism. However, through a lucky accident we found the truth. The cell entry mechanism is the same as the influenza virus."

"Exactly?"

"The haemagglutinin trimmers in the virus are cut into precisely the same two polypeptides as influenza and undergo the same pH changes."

"Then influenza drugs and vaccines could be used?" said Jed.

"Unfortunately," said Ken, "there the similarities end. But it does mean it is likely to be as contagious as flu, potentially airborne, if not now then very likely after a few mutations. But with this knowledge, combined with the genome, I think we have something to fight back with."

"Good work. Make sure you pass all the data on to the rest of the team straight away. I'll let Naomi know."

"Sure, will do, Jed."

Jed wanted to give Naomi more time to go through his work. He took a walk and let the new information sink in. It was the main breakthrough he had been waiting for and hadn't expected it so soon. As he tied it to his own work in his mind, and knowledge of the genome, he began to see the beginnings of a solution.

After another hour he returned to her.

"How are you doing?" he asked.

"Good, I've got a handle on all your work, impressive."

"Any ideas?"

"Sure, I can see what you want me to do."

"Before you make a start you need to see what Ken and Helena have come up with. Best go and speak with them. But essentially, it enters the cell in the same way as influenza, identical, though everything else in its nature is different."

"That doesn't bode well for ease of transmission."

"No, we've already realised that."

"Okay, I'll go touch base with them."

While Naomi was absent, Jed carried on by drawing a new mind-map, assimilating all the new information with that which they already had. The vague ideas and links he made while walking became solidified on paper and made more accurate.

When he had gone as far as he could, he diverted his thoughts to the experimental machine he wanted to trial. He gathered the parts Naomi had brought with her and, after deconstructing a couple of pieces of redundant lab equipment, he began the construction.

With his notes and circuit diagrams it was an easy task, he had already built a larger working model at home.

"What on earth is that?" said Naomi.

"Ah, you're back. It's a quasi-tetrahedral waveform generator."

"A what?"

"It's one of my latest inventions to assist in cell construction. I thought it might come in handy considering the line of thinking I'm going down."

"Mm, okay. Can you explain how it works?"

"Not exactly. See, sometimes I work intuitively, without fully understanding how something works."

"You never cease to amaze me, Jed."

"So, any new thoughts?"

"I'm going to have to digest all this overnight."

"I'm glad you said that. I'm about done here for today, how about heading out to relax and mull things over at my little shack?"

"Sounds like a good plan, let's get together everything we need."

He was sure he saw a twinkle in her eyes.

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Hanameel was there to greet them at the tent, his beaming smile lit up his face.

"Ah, you are very nice lady Jed told me about." He helped Naomi step down from the ATV. It was an unnecessary gesture, but Naomi played along with it, Hanameel was clearly enjoying his demonstration of chivalry.

"Thank you, Hanameel," she said.

"No problem. Please call me Ham, mistress."

Naomi suppressed a giggle. "And you can call me Naomi."

He smiled and bowed to her.

"Okay, Han. Everything good here?"

"Yes boss, clean and tidy for your lady. I have made curry for you."

Jed turned to Naomi. "You're in for a treat, Han's curries are out of this world."

"I have been learning too, boss."

"What about?"

Han pointed to a book on the table.

Jed picked it up. "Journey's into the Quantum World, that's heavy stuff, Han."

"Weird shit, boss. But I understood most of it."

"You did?"

"Yeah. Maybe you answer a few questions?"

"Sure Han, but not tonight, eh?"

"No problem, I know you have better things to do." He smiled and glanced at Naomi. "I should go now, yes?"

"Oh, it's early, stay and have a drink with us first. Perhaps Jed will be gracious enough to answer one of your questions."

"If okay with the boss." He looked at Jed.

Jed smiles. "Han, in situations like this, the lady is the boss."

Han looked quizzical and then bowed again to Naomi. "In that case, I have drink with you."

The tent was well stocked, Jed and Han each had bourbon while Naomi enjoyed a glass of white wine.

"So, Han," said Jed. "One question only for tonight."

Han took a breath and composed his thoughts. "This quantum world is very strange, yes?"

"It is."

"If the quantum world ultimately makes up the whole universe, then why do quantum laws work only at quantum level?"

"A good question, Han. We're still searching for a unified theory, one that unites the quantum, the macro, and gravity. So far it has eluded the best minds. But in some way's quantum principals do govern the macro world. Your inner ear works on quantum principles, so does photosynthesis in plants. Even the principals of the observer changing the outcome of an experiment by merely observing, have been shown to work in the macro world. Some years ago, a large-scale experiment was undertaken, with many ordinary people on-line. They proved that thought could influence a computer to produce either binary zero or one, with the resulting convergence far outside of that expected by chance."

"Others go so far as saying reality could not exist without consciousness."

Han was deep in thought.

"Maybe I read book again."

"You're welcome to borrow it for a couple of days."

Jed handed him the book. Han smiled.

"You have given me much to think about." he finished his drink. "I think I should leave now and let you enjoy the lady."

Naomi smiled. Jed didn't think Han meant it the way it came out.

"You can take the ATV if you like, Han. But no showing off with it and racing around the village, okay?"

"I promise, boss."

"Come back about nine in the morning."

Jed tossed him the keys.

"Thanks boss. Goodnight, Naomi."

"Good night, Han."

They heard the vehicle start up and then blast off into the distance.

"A bright fellow," said Naomi.

"He is. I try to encourage him. He will have a good future, if we can nail this virus."

Jed refilled their glasses.

"So, any new light to shed on my research?"

"It's all falling into place," said Naomi. "I think I can help."

"I'm banking on it."

"In light of Ken and Helena's discovery I think we can pursue your idea of a killer T-Cell."

"You can build one?"

"Yes, if you can program it."

"That's the easy part. It's your nano-biotech engineering skills I need, to construct the cytoplasmic components."

"We're treading new ground but I'm confident."

The development of artificial living cell construction had forged ahead in recent years, aided by Artificial intelligence. The basic principles were well known. As far back as 2018 researchers at the University of California had developed artificial cells which could kill bacteria. The cells were engineered from the bottom up, like Lego bricks. But even now, the top research centers found putting the theory into practice was a hit-or-miss affair, with many cells built being nonviable, essentially dead. But there were successes too.

Genetic structure was a clearer, though no less complex subject. The Human Genome Project, completed in 2003, was followed by CRISPR-Cas9 technology which paved the way for gene editing in any animal.

Jed and Naomi were well-versed in the subjects, both in theory and practice.

Jed and Naomi spent the next three hours working on separate parts of the project. Eventually, Naomi looked up from her work.

"There's not much more I can do here until we get back to the lab. So, how about that massage?"

"My pleasure."

They lay their drinks down by the bed and Naomi removed her top.

Jed delighted in the softness of her skin. He kissed her neck and then prompted her to lie face down.

He began to move his hands around her back and shoulders, and she purred at his touch. He wondered how long he could keep it going before they both wanted more. But he could feel the tension and knots as his fingers probed and he determined to give her a full massage.

After half an hour his hands were tiring.

Naomi pushed herself up on her elbows.

"Jed, that was wonderful. You're a man of many talents. It's time you had some pleasure now."

She rolled over and began to undo his shirt. Soon they were naked and in full embrace, kissing passionately.

“I want you, Jed,” she panted.

Half an hour later they rested in each other’s arms. Naomi kissed his cheek.

“That was lovely Jed, I’ve missed you.”

“Just the sex?” He smiled.

“Not just that, I like being with you.”

Jed was unsure where the conversation was going.

“I enjoy your company too.”

“You don’t commit very easily, do you?”

He laughed. “I find it difficult when it comes to feelings. I’ve never had what one might call a serious relationship.”

“Never?”

“A few flings, and close friendships with women, but no romantic entanglements.”

She stroked his face.

“Don’t worry, I enjoy what we’ve got.”

“I’m not saying it won’t happen. This feels different. I didn’t even try to hit on Helena, knowing you were coming.” He laughed.

“She’s very attractive, and just your type.”

“I can’t deny that.”

“So, if it wasn’t for me, you might have tried?”

“Perhaps, I get the impression she wouldn’t be averse.”

“I’m honoured. Shall we take our drinks outside, it’s a lovely evening?”

“A good idea.”

They set up two folding chairs and Jed lit a small fire.

“This is beautiful.”

“It is. That’s why I insisted on my own place out here. I need the space away from others sometimes, a place to think, and I love this country.”

“You have a strange mind, Jed.”

“I know.”

“I don’t just mean your way of problem solving. I’m building a bigger picture of you all the time. Can I ask you a personal question?”

“Sure, fire away.”

“Are you on the autism spectrum, just a little?”

Jed laughed. “You’re not the first to ask. An old flame insisted I was, but I just put it

down to a misinterpretation of my obsessive passion. Then, through meeting similar people and learning a bit about it, I realized I do have Asperger's."

"Many creative and exceptional people do, it can be a positive side effect of the condition. I'm glad you're not offended."

"It would take more than that to offend me." He smiled.

"I'm sure. You have a lot of self-confidence."

"I just know who I am."

Naomi leaned over and kissed his mouth. She looked into his eyes briefly, but he wasn't sure of the meaning they carried.

After a few more drinks, Naomi began to wane.

"It's been a long day," she said.

"We'll get to bed then, we've a lot to do tomorrow."

She smiled. "Can we . . . again?"

"You bet,"

Jed led her to bed.

The following morning, they woke early. Soon, Hanameel came speeding up in the ATV.

"Good morning boss and missus," he said, and gave a beaming smile.

"I read book again."

He handed it to Jed.

"The whole book?"

"All of it, boss."

"I'm impressed."

"I understand better now."

"Good. Still more questions?"

"No, not now."

"That's well, we have to be going soon, work to do."

"Very important work, boss."

"It is. Naomi will be a great help."

"You are clever scientist too?"

Naomi smiled. "Not quite as smart as Jed."

"Okay, enough banter," said Jed. "Let's get our stuff together and make a move."

They loaded up the ATV and Han gave Jed the keys.

"Back tonight?"

Jed looked at Naomi, she gave him a wink.

"I think we will be, see you later."

They drove away and Naomi touched his hand. “I enjoyed last night, not just making love and the massage.”

“Me too.”

“There’s a magic here, I see why you like it so much.”

“We need to find some magic in the lab.”

Jed and Naomi set up their work area.

“I’ve got some data to run,” she said as she opened her laptop. “This is a powerful algorithm capable of analysing over a hundred million chemical compounds in a matter of hours.”

Jed raised his eyebrows, “That’s some number crunching!”

“I am hoping, by the end of the day, to have identified the building blocks of your customised T-cell.”

“I’d better crack on with the DNA coding then.”

Jed began final checks on his self-built machine. If it worked, it would save Naomi considerable time. All looked good, he powered it up and let the core begin its five-hour warm-up period.

Next he began to calibrate the DNA printer and loaded it with the four base DNA building blocks, each in a ten-milliliter tube. Once he programmed the machine it would combine precise quantities, accurate to one nanogram, of Adenine, Guanine, Cytosine, and Thymine to the solid-state phase synthesis plate. The final annealing process would take place and the resulting strands could be held in suspension ready to insert into Naomi’s cell constructions.

He connected his laptop to the DNA printer, downloaded the parameters and then activated it. The process would take over two hours to produce the first small batch and so he took a stroll.

The labs buzzed with activity as scientists desperately juggled experiments and data. Suddenly there was a shout from the far end.

“Fire!”

Jed turned. It was more than a fire; a small explosion shook the lab and blasted a hole in the side. Doctor Pike, working nearby was thrown to the floor but picked himself up and seemed unharmed. The air was filled with acrid smoke.

“Shit!” said Jed.

He gathered the nearest fire extinguisher and rushed to the scene, Doctor Brian Kelly had the same idea, and both tackled the remaining fire.

Soon the situation was under control and they took stock.

Professor Ken Picard appeared. "Have we lost anything?"

Stan Pike was shaking as he approached. It was his section and he made a quick assessment.

"It looks like I've lost my records." He looked dismayed. "My laptop is wrecked. Weeks of research, gone."

Jed looked at the machine. "It's still in one piece, perhaps we can save the drive."

"Anything else?" said Ken.

Stan looked incredulous. "All our work is important!"

"Sorry, Stan. Who has the skills to attempt a recovery of the drive?"

"If the drive is still sound, I can do it," said Jed.

Ken smiled. "I might have known. A computer geek as well."

"I was building computers before I was ten," said Jed.

"It doesn't surprise me. Okay, see what you can do and we'll get this place tidied up."

Jed relished the opportunity of a change of challenge and hurried away with the computer. He bumped into Naomi amongst the crowd of scientists who had heard the explosion and come to investigate.

"Is everyone alright?"

"No injuries, but there's this. All Stan's research data is on it."

"Oh no!"

"The hard drive may have survived; I'm going to take a look."

Jed lay the machine down on his work bench and began to dismantle it. After ten minutes he extracted the drive. It looked intact but there was no telling if heat had damaged it.

He searched his drawers and found the connectors he needed and hooked the drive to his own machine. Getting to the root directory he found the drive still live and attempted to open the data base.

At first it emitted a discouraging whine and he couldn't gain access. Then his screen showed a corrupted flow of information.

"Oh no!"

He was reluctant to reboot the system for fear of it not running up a second time so tried an old trick he had learned years ago. It involved reading each byte of data and erasing it, a one-way trip. If it failed, all was lost.

He licked his lips and took a deep breath as he pressed the 'enter' key to commence the process, then sat back.

Nothing happened for a few minutes, then suddenly the screen filled with files. He watched tentatively as the progress bar marched slowly to one hundred percent.

Finally, it was complete. He saved the files to a new location on his own drive and then downloaded it to a data stick. It was time to go back to Stan.

He found him, looking dejected among the burnt remains of his equipment. He walked

up and handed him the data stick.

“What’s that?” said Stan.

“All your data.”

“Seriously!”

“It’s all there.”

“You’re a star, Jed, I didn’t know where I’d go from here. Thanks.”

“No problem.”

Jed turned and walked back to his own section, pleased that he’d saved Stan’s work.

“All sorted?” said Naomi.

“Yep, I recovered all the data.”

“Is there anything you can’t do?” She gave him a kiss.

By late afternoon the following day, with input from the rest of the team, Jed had the first small trial sample of the cure ready. Naomi carefully combined some of the test cells with a culture of human cells infected with the disease, taken from an early stage victim in the village and housed in a Bio Safety Level 3 cabinet located in a small secure compartment.

The mixture was placed in a 3D living cell imager connected to a visual monitor, and then they waited.

The virus continued to attack the host cells and replicated rapidly. Jed and Naomi looked on with anxiety. After ten minutes, a synthetic cell came close to a virus cell and suddenly attached itself to it. They cells combined and the cytotoxic T-cell killed the virus cell within moments, slicing its DNA into pieces.

“We’ve done it!” said Naomi.

“Not so fast,” said Jed. “The T-cell can’t self-replicate. We have about a five hundred of them in there, it’s a finite attack on the virus.”

“But wait, the one we just saw is still alive and moving on towards another virus cell.”

“You’re right.”

They continued to watch as the T-cells eliminated the virus cells.

“There are too many, our cells can’t compete,” said Naomi.

“But it *is* working. We have two options now, only one is workable.”

“And they are?”

“Either we manufacture vast quantities of the T-cells, an impossible task, or we find a way to make them replicate. If we can do that, we will have a functional cure.”

“Surely that isn’t too much of a challenge?”

“It’s more my field than yours, but I would say yes, we can do it. I’ll have to reconstruct the DNA.”

“How long will that take?”

“I don’t know. I need to think first, mull it over in my head. I would say I can crack it within two days.”

“That long?”

“It’s a complicated procedure, we’re effectively getting down to what constitutes life. Do you know the replication process?”

“The basics.”

“First, we have to make an origin point, the place where the double helix can begin to unwind. Then a primer must be synthesized, a short segment of RNA which forms the starting point of the new DNA. DNA polymerase enzyme then matches bases between the original and the new synthesized strands. Once that process is finished the RNA is replaced with DNA and the new segments sealed together with enzymes. Finally, before cell division, it must proofread the new DNA to ensure there is no mutation.”

“I wouldn’t know where to begin.”

“I’m not much further ahead than that. That’s why I’m going to have some serious thinking to do.”

“Out at the tent?”

“Of course.”

“Do you want me along with you or will I be a distraction?”

“No, I want you there, you may be able to help. In more ways than one.” He gave Naomi a smile.

“We’d better let the Professor know.”

“I agree. We’ll do that. Secure the remaining test cells, then grab the laptops and start figuring it out.”

## CHAPTER 5

### Egypt

Dr Petrakis was unhappy with the first results from the pathology lab; he believed the analysts had made fundamental errors in the blood and urine tests. Abnormal conditions were identified that caused a confused diagnosis. He personally undertook a repeat of the tests.

The full blood count showed variations in the normal range of both white and red cells. Unusually the white blood cell count was much higher than the normal and the red cell count lower, verging on anaemia. Also the albumin was considerably thinner than normal giving the potential for the blood to leech through tissue walls. The concentration of C-reactive protein was very high indicating a strong reaction to an infection. Finally he conducted an Enzyme-linked immunosorbent assay test, the results of which he had never seen before, a massive range of antibodies associated with combating allergens. Nothing made sense; it was as if the blood was becoming unstable.

He then tried to narrow the focus by testing the urine, the only variation from the normal was the high red blood cell count which tallied with the missing ratio in the blood plasma. He was no nearer to an answer.

He spent another hour analysing the results of the scans. A chaotic picture of organ changes and unusual neural network behaviour emerged. Kidneys, livers and hearts had deformed from their natural shape, becoming more rounded and reduced in size. The brain and nervous system activity was nothing less than bizarre, by rights they should be madmen. He had never seen anything like it.

In desperation he ran searches on all known diseases, including those both rare and newly discovered, nothing came close.

Mentally exhausted he sank back in his chair. He closed his eyes then squeezed the bridge of his nose with his forefinger and thumb and contemplated the extent of his knowledge so far. All the data lay before him but a picture of what he was dealing with eluded him. He had to decide his next move. Dr Collins had not elaborated on how the men became ill. What had they been in contact with? He had to talk to them.

Dr Petrakis returned to the isolation ward and was shocked to see two nurses attending and administering injections.

“What’s going on?” he demanded. “Why wasn’t I called?”

The senior nurse explained that the patients had gone into anaphylactic shock so suddenly that they had no chance to call him.

“Anaphylactic shock?” he repeated. “At least that tallies with the CRP tests. How are they responding?”

“A minor shot of adrenalin and they’re completely stabilised,” said the nurse. “an immediate reaction after minimal medication, it's very unusual.”

Vincent and Warren were indeed back to their normal selves and he had chance to talk with them.

“What the hell is wrong with us doc?” said Vincent.

“I’m afraid I can’t answer that yet, I don’t know, even after all the tests. I checked them myself. What have you been exposed to?”

“Dr Collins didn’t tell you?” said Warren.

“No nothing only that you had been taken ill suddenly.”

“Well, we discovered something . . . ”

Russell phoned a contact at the Ministry of Defence as soon as Vincent had told him the latest developments. An old university friend worked at Porton Down as a military officer overseeing chemical and biological weapons research. Brigadier Gordon Young was interested in his story but couldn’t do anything without clearance from the Foreign Office who would need to make contact with the Egyptian authorities. Russell thanked the Brigadier and said he would inform him of any developments.

His next call was to the Interior Ministry in Cairo, he had no time to waste going through the bureaucracy of the UK Foreign Office and went straight to the people who would be most concerned. Eboni Hassan, the head of the department, gave Russell a verbal grilling; it was she who had given the Society permission for the dig and was accusing him of withholding the true nature of the venture.

“Miss Hassan, we genuinely believed this was a simple matter of geological research.”

“It sounds far from it Dr Collins, your team must have realised very soon that they were dealing with an ancient artefact and should have informed us.”

“We will undertake a full investigation once the team returns to the UK and you will be kept in the loop. But at the moment we should concern ourselves with the situation at hand. As I have told you already, we need a bio-chemical hazard response team on site as soon as possible, do you have the resources?”

“We have one team but they are presently dealing with a major chemical spill 150 kilometres away at Port Fuad. I doubt whether they will be available for three days.”

“Miss Hassan, it’s vitally important that we address this immediately, I believe we have a serious bio-hazard situation on our hands. May I suggest a response unit is sent from the UK? Our military have one on immediate standby to fly anywhere in Europe, I’ve spoken to them already.”

“Very well, Dr Collins, but I insist that an Egyptian military commander be appointed to lead the investigation.”

“As you wish.” Russell didn’t believe for a moment that the British commander would pay anything more than lip service to an Egyptian officer. “I will let you know when they are due to arrive. Thank you for your time.”

“Good day to you Dr Collins.”

Russell put the phone down and leant back with a sigh. *We’re trying to help and she’s being an officious prig.* She did have a point with them misleading the Egyptians a little and Vincent had gone even further, he would certainly speak to him on his return.

His next call was back to Brigadier Young, “Gordon, it’s Russell again, we need your help. The Egyptians can’t handle it, they’ve got another job on.”

“No problem Russ, I’ll need a written request from the Egyptians and that will give us clearance with our politicians. If you can sort that out then my team will be ready to go in one hour, we’ll be there by night fall.”

“Sure, I’ve just been talking to their Interior Minister; I’ll get her to email you an official request. Can you get scientists from Porton Down on the team?”

“Yes, there’s a Professor Guy Hansen and a Dr Leon Berkley, both biological weapons specialist, they’re going with the squad.”

“Excellent Gordon. Thanks. By the way, the Interior Minister in Egypt wants one of her military officers to take charge.”

Brigadier Young laughed. “We’ll see what Captain Kealty makes of that, my man in the field. He won’t take orders from foreign forces, not without my say so.”

“And you won’t be giving that?”

“My team know exactly what they’re doing.”

“Well, thanks again Gordon. I would like to be kept informed of any findings, two of my men have fallen ill out there.”

“Sure thing Russ. Cheerio.”

Russell steeled himself to speak with Miss Hassan again. This time she was less obnoxious, almost friendly. She had been in touch with the hospital and spoken with Dr Petrakis. Perhaps now she realised the gravity of the situation and was grateful for the offer of assistance. She told him she would send the request to the Brigadier as soon as she had informed their military and the President.

Within an hour word had reached high levels in both the British and Egyptian governments. Russell’s phone rang with requests for information from several government departments and the Prime Ministers personal secretary. They all wanted to know why the Bio-Chemical Hazard Fast Response Unit was being despatched to Egypt with such urgency. There was almost a state of panic in the Egyptian government. What had been discovered, what was the disease, how ill were the scientists? At Russell’s suggestion Miss Hassan instigated an exclusion zone, enforced by the Egyptian military, for a kilometre around the excavation site; and then they awaited the arrival of the British unit.

## CHAPTER 6

A few minutes before 20.00 hrs Cairo time, a Lockheed Mastodon T150 heavy transport aircraft thundered out of the night sky four kilometres from Cairo Airport. It slowed down almost to stall speed, nose up, landing gear and flaps down, and approached like a flying behemoth. Such was its size that at 210 kilometres per hour it appeared to be almost stationary. The first of its twenty two wheels touched the tarmac, the nose dropped and then the pilot engaged reverse thrust. The roar of its turbines caused birds three kilometres away to take to the sky in bewilderment and fear. The air vibrated and tremors could be felt through the runway. Slowly it eased to taxiing speed and inched towards its specially allocated parking apron; finally reaching a complete stop, its engines began to slow until the noise died and then the aircraft was illuminated by searchlights.

The rear loading ramp began to lower revealing the red glow of an interior bathed in night lights. It hit the ground with a load clang that echoed across the airport. Instantly, a dozen armed soldiers exited via the ramp and formed a cordon around the rear of the aircraft. Engines started and, one by one, four massive articulated trucks, matt black with no markings, drove down the ramp. They lined up in a convoy and as soon as all the troops were mounted on them they drove out of the airport and onto the southern ring road of the city.

Captain Jonathan Kealty rode in in the cab of the lead vehicle, sitting in the outer of three passenger seats furthest from the driver. He was dressed in desert camouflage but knew this was of no consequence to the enemy they may be fighting, it was just a uniform. He pondered the mission coming up. Little was known, it was one of the shortest briefings he had attended in his career. It was summed up as 'something has happened in Egypt, we're not sure what but we think it's in your field, go and find out'. *Great*, he thought. *We're sending in the cavalry and no idea what we're going into.*

His instructions were to secure the target area and assist the scientists with their investigations. There was limited information concerning the casualties, two British geologists who had fallen ill, nothing serious as yet, but believed to be connected with the site they were rushing to. The road came to an end and petered out to desert sand. The vehicles slowed down.

"Looks like we're almost there sir," said Sergeant Cooper. "A lot of lights up ahead."

"We'll see what happens, apparently the Egyptians insist on being in charge."

"They've got their own bio-hazard team here sir?"

"No, regular army."

"Your going to let them run the show then sir?"

"If they are regulars, most certainly not."

"Could be interesting sir."

Jonathan smiled, "no doubt about that sergeant. Well, here we go, look ahead."

A soldier was flagging them down, waiving night-sticks at arms length.

The vehicle came to a halt and Jonathan wound his window down to speak to the soldier. "British. Do you speak English?"

"No come through!"

The soldier obviously didn't speak much English, nor did he have any idea who they were. Jonathan could see this wouldn't be easy. Four large black trucks with uniformed men in the cabs, did they look like they were sightseeing?

"Where is your commanding officer?" Jonathan said slowly. "Captain, boss?" he tried to make the soldier understand.

The soldier picked up his radio and made a call.

"You wait," he said.

Within a minute a jeep sped toward them and stopped right in front of the lead truck, four soldiers leapt out with weapons drawn.

"I don't bloody believe this!" said Jonathan.

A fifth man left the vehicle, an officer.

"Maybe we'll get some sense now sergeant."

Jonathan dismounted from the truck and walked towards the Egyptian officer. They saluted each other and the Egyptian officer offered his hand, which Jonathan shook.

"Do you speak English?"

"Quite well," the Egyptian replied. "I am Colonel Ibrahim."

"Captain Jonathan Kealty, British Army. Commander, Bio-Chemical Fast Response Unit. We intend to set up our equipment on the perimeter of your boundary and commence work in the morning at first light."

"I have been put in charge of all operations here," the Colonel said.

"My team, Colonel, will work autonomously under me."

"That is not my instruction Captain."

"You have no knowledge or expertise in our field, I cannot permit any interference in our operations by unskilled personnel."

The Colonel thought for a moment. "It was not my decision, but I know you are right. But I ask that you keep me fully briefed. If you agree then we will not interfere but will simply provide security. Is that acceptable?"

"Certainly Colonel, I will personally brief you twice daily. I think we have an agreement?"

"Yes, that will be satisfactory. If there is anything you need, please ask."

"Thank you Colonel."

The tractor units of the articulated vehicles each hauled a sixty foot long trailer. Two were dedicated to laboratory and specialist equipment, one was a common canteen facility used by all ranks and the the fourth was the command centre. Tents provided the sleeping accommodation for all ranks and these were already being erected by the soldiers, half a mile out from the excavation site,

Captain Kealty assembled his key personnel for a briefing in the command trailer; his Lieutenant, senior NCO's and the two scientists. Professor Guy Hansen and a Dr Leon Berkley were the lead investigators but all personnel had in-depth training in biological and chemical agents and were capable of providing valued assistance.

"Professor Hansen," said Captain Kealty. "How do you intend to proceed tomorrow?"

"Well Jonathan, assuming your men have all the equipment set up tonight, myself and Doctor Berkley will enter the restricted area in full protective suits at 07.00 hours. We will carry monitoring equipment and sample collectors. As per standard procedures we will also

feed back a continuous video and audio report. Do you have any further information regarding the casualties?"

"Thank you, Professor. I was just coming to that. The latest update from the local hospital is that the men are continuing to deteriorate slowly. The doctor tending to them is a specialist in unusual and rare diseases. He has not been able to ascertain what they have been exposed to or what they have contracted, as yet."

"Very well," said Guy. "Normal precautions will be in place for all personnel, with decontamination facilities at State Alpha."

Jonathan turned to his second in command, "Make it so Lieutenant."

"Yes sir," said Lieutenant Baxter. "Full facilities will be established by dawn."

At 0700 hours the following morning the first insertion into the contaminated area was made. Professor Hansen and Doctor Berkley donned self contained, full protection chemical suits complete with head mounted video cameras and voice activated microphones. They were driven to a point 200 metres from the excavation and then began to walk the remaining distance to the artefact. They had chosen early morning to avoid the worst of the daytime heat; nevertheless, inside their protective suits, despite the built in air-condition units, the atmosphere was stifling.

"Let's hope we can get this job done quickly, it's damned hot already," said Guy.

"I'll second that," said Leon.

"Hey, something's changed!"

"What?" said Leon.

"Remember the photos; it was a bright orange-red colour. Look, it's gone. Captain, are you picking this up on the video feed?"

"Yes, getting it clear Guy, interesting."

As they drew closer they could see the growth was still there but had changed to a pale grey, semi-translucent state.

"You think its dead?" said Leon.

"Who knows? We'll get samples and see what we can make of it. Look at this thing Leon, incredible, the markings and the open hatch. You know they're talking about this being of extra-terrestrial origin, I mean *intelligent* extra-terrestrial?"

"Yeah, I can see why. How else do you explain it?"

They worked around the object cutting off parts of the growth and placing them in double walled sample containers; cylinders of stainless steel roughly twenty centimetres by six. Each man carried eight containers and they worked their way out from the centre, sampling at varied distances until the tubes were filled.

"I'm done," said Leon.

"Me too. I'd like to get a look at the other object while we're here, in the lab over there."

"If they had any sense, it will be locked."

"We'll see."

Guy tried the door. "Bugger, it is. We'll get hold of the keys or just have the army bods open it up for us."

“I’m sure the BGS guys will appreciate us breaking in.”

“Under the circumstances, I don’t think it’s unreasonable, we’ll secure it again afterwards. Come on, we’ll head back, get decontaminated and out of these suits and then take a look at what we’ve got.”

The decontamination procedure was a laborious and painstaking process. The two scientists entered the wash station which was then sealed behind them. Remaining fully clothed they were sprayed with steam containing a cocktail of chemical neutralising agents and anti bacterial solutions. Next came the careful task of removing the protective clothing whilst avoiding any skin contact with the external layers of the suits. It was a procedure they had followed many times and had become expert at but took a further twenty minutes. The suits were deposited through a hatch which led to a sealed container which would be incinerated within minutes. Then they walked through the exit door into another sealed room where their naked bodies were sprayed with a similar mixture of chemicals excluding those which would be harmful without protection.

Eventually they were deemed to be clean, dressed in normal clothing and came out of the process exhausted. Their keenness to examine the specimens was tempered by the need to rehydrate with a couple of pints of fruit juice and to cool down in the canteen wagon which was air-conditioned.

Captain Kealty entered the canteen, anxious to hear their assessment of the situation.

“Well, things have changed a little,” said Guy. “We don’t know whether this thing is dead, if it was really ever alive, or what.”

“OK, I know you’re beat at the moment, but get into the lab as soon as you can.”

“Try stopping us Jonathan, we just need a few minutes to draw breath. By the way, we’d like to get into the Geological Societies lab sometime, to take a look at the other object they found.”

“When we have some idea of what’s out there I’ll get one of my men to open it up for you, no problem.”

“Etiquette might suggest we at least try to get the keys first,” said Guy. “Those guys are only a few miles away.”

“Yes, of course. I’d like to make some enquiries anyway, see how they’re doing; I haven’t had any feedback yet. Let me know how your tests go as soon as you’ve got anything.”

After ten minutes Guy and Leon moved to the lab taking the externally decontaminated specimen cylinders with them. Leon placed one of the containers in a Class 111 biological safety cabinet with a built in high power optical microscope and incorporating a glove box to avoid direct handling of the contents of the cabinet. Further containers could be placed in the cabinet without risk of contamination by use of the double door autoclave fitted to the unit combined with the permanent negative pressure inside.

“Let’s open it up then Leon.”

It was an arduous task to extract the samples from the cylinder, cut smaller parts from them and set them up in the microscope for viewing while wearing the heavy duty protective gloves fitted to the cabinet. Half an hour, later Leon had six sample slides ready for viewing.

“First slide is in the scope Guy.”

“OK, bring it up on the monitor.”

Both studied the image trying to determine its composition. Guy played with the

handheld enhancement controller until the picture became clearer and more three dimensional.

“Definitely a cellular formation, a living structure, or was. There seems to be no activity now, it appears to be dead,” said Guy.

“I feel a bit easier about that. Wait. What was that?”

“What?”

“I’m sure I saw movement.”

They concentrated and after a moment saw the movement again, cells were moving and one had just replicated.

“Shit,” said Leon. “It’s alive!”

The movement and rate of replication increased rapidly until the sample expanded so much it cracked the glass slide.

“Bloody hell, that’s fast,” said Guy.

“Yeah, I’ve never seen anything like it.”

“Can we zoom in on one of the cells?”

“I’ll try,” said Leon. “We’re almost at maximum magnification but I can go a bit further and give it some extra illumination.”

“That’s better. It’s a plant of some kind, that’s certain. Set up another slide.”

They examined the contents of another cylinder, the first samples were all similar and Guy had the feeling he’d seen a similar cellular structure somewhere before. Suddenly they came across one that was different. Dozens of balloon-like appendages were attached to the main body. Leon gently probed one, it proved to be extremely brittle and split open releasing a cloud of powder.

“My god!” said Guy. “That must be spores or seeds. If that’s the case we could be in serious trouble.”

“You mean it’s still living and capable of spreading by the disruption of these pods?”

“Yes,” he paused. “I’ve just remembered what this reminds me of. There was a fish, well, loosely termed a fish, which was discovered in a deep sea hydrothermal vent, about three years ago. They couldn’t figure it out, still can’t. It was dubbed the alien fish.”

Guy and Leon stood and looked at each other for a few moments. Over the next hour they observed more samples and found numerous examples with seed pods. They were alarmed by the fact that at the end of the observations the cabinet was almost full with new growth.

“I think we’d better call a meeting with Jonathan,” said Guy.

At midday Guy and Leon met with the military part of the team again in the command trailer. Guy had spent the last half hour putting his thoughts in order, rationalising the discoveries they had made. He knew it was too easy to slip into a knee-jerk reaction. Yet he believed the situation was very serious and further investigations needed to be done as soon as possible.

“So, Guy,” said Captain Kealty, “please, give us an update on your results so far.”

“Certainly. This entity is most definitely alive, some kind of plant that doesn’t appear to be native.”

“Native to what, the area?” said Jonathan.

“No, I mean the planet. It could be of extra-terrestrial origin as has already been suggested. The rate of growth is phenomenal; in the time we took to look at the samples they almost outgrew the protective cabinet. Furthermore, there is what I believe to be seed or spore pods. These are very delicate and easily fractured. I would like to have the contents of these analysed properly, this needs more powerful instrumentation than we have at hand, a particle beam microscope at least. The local university should be able to help.”

“So, what does all this mean?”

Guy paused and chose his words carefully, “we could be in trouble. If this plant is what caused the geologists to become ill, then we are at risk, all of us.”

“How so, Guy?”

“We don’t know how far it has spread. The change in the plant has made it difficult to see as it becomes smaller. We traced it visually out to about fifty metres, but I can’t guarantee where it stops. It is feasible it has reached the camp, especially in light of the seed pods. Have we got data on the wind direction for the past 48 hours?”

“I can get that in a few minutes. So what if it has reached here?”

“We could get sick, like the geologists.”

All eyes around the table flicked with fear, nobody spoke for a moment.

“What do we do next Guy?” said Jonathan.

“Four things I need Jonathan, the prevailing wind history, assistance to examine the contents of the pods, and an update on the condition and diagnosis of the geologists. Finally, we need to get back out there and take more samples, to see how far it has spread. For that I need help, more people to cover a large sample area. How many soldiers can you spare me?”

“Sergeant Cooper?” Jonathan asked.

“Sir, the limiting factor is the number of protective suits and the cleansing station can take a maximum of four people at a time. On that basis I would suggest Professor Hansen, Doctor Berkley and six others. Would that be sufficient Professor?”

“I think we could make do with that. I want a wide search pattern so we can sample from where we lost visual evidence of the plant on the way back to the camp. It’s hit and miss, but the best we can do.”

“Should we be staying here Guy,” said Jonathan, “if there is potential contamination?”

“If there is, it’s too late to ask that question,” Guy replied gravely. “We will have a greater purpose to our efforts than our own lives.”

From the look in Jonathan’s eyes, Guy knew he understood his meaning. If they were already infected and there was no cure, their only goal would be the protection of the local population

“Very well,” said Jonathan, “make preparations for your next search. I’ll get the rest of the information you require and the assistance to analyse the spores.”

Jonathan called the meteorological office at Cairo airport and was told that the winds over the past days had been predominantly from the south, blowing straight from the artefact towards the unit’s camp. It was then that the truth of what the Professor had said became reality. If Guy’s worst case scenario came to pass, none of them may return home.

His next call was to the Cairo University to enquire about the use of a particle beam microscope. One was available but he realised he could not send anyone out from the camp nor permit anyone in. The equipment could be flown in; they had the generating capacity to power it. The university were willing to lend him microscope under those circumstances, they had picked up on the grapevine that something serious was going on. All that remained was to arrange a helicopter to transport it. He contacted the charter company that the BGS had used and, after coordinating with the relevant parties, delivery would take place late in the afternoon.

Knowing the risk they were now facing he called the hospital with some trepidation to find out the condition of the two BGS scientists. After being passed around different departments and wards he eventually made contact with Dr Petrakis, introduced himself and told him of his mission.

“What can you tell me about the cause of their illness and their current state of health?”

“Well Captain,” said Dr Petrakis. “We know it is a virus, but we can’t identify it, I’m about to contact the World Health Organisation, this is beyond anything the resources of my country can deal with. As for the men, they are deteriorating rapidly and I can’t do anything to stop it.”

“What are the symptoms, doctor?”

“Initially like a cold or flu, then skin lesions developed. I picked up dramatic changes in blood constitution, neurological disorders and major tissue changes, especially organs.”

“Could this be a nerve agent?”

“There are similarities, yes, but differences too. Nerve agents are fast acting, this is slow, though dramatic. The casualties are reasonably comfortable at the moment but are feeling increased pain. If we can’t find a cure I believe the condition will be fatal.”

“Is there anything else you can tell me.”

“Nothing I’m afraid, only the details of my tests, but they would be of no concern to a layman. How about yourself Captain, have you discovered anything that might help me?”

“I don’t know what will help you doctor, but I’ll tell you everything we’ve found.”

After relaying the results of his scientists investigations Dr Petrakis responded, “there’s nothing there that I can see will help, but thank you, at least I have some back ground information.”

“Thank you too doctor. I would ask that you keep me informed of developments with the casualties. I’m concerned that my team, including myself are now at risk.”

“I promise I will keep you updated Captain. I sincerely hope you do not contract what these men have. Keep safe.”

“I fear it may be too late doctor. Thank you for your time.”

He knew he and his men were at risk and he had to do everything possible to minimise it. But he was powerless until Guy had his next set of samples. The Egyptian army guard had to be informed and instructed to withdraw to a safer distance. He called Colonel Ibrahim on the radio and told him of the risk. The Colonel was reluctant to withdraw, he had explicit orders to secure the area and lacked the manpower to do that from a greater radius.

"Sir," said Captain Kealty. "I must insist, for the safety of you and your men. Our discoveries indicate we may already have been in contact with the disease, until we carry out further tests we don't know how far it has spread. Please, we will provide security for the immediate area."

"And what of yourselves Captain? If you have been contaminated, what are you going to do?"

Jonathan paused..... "For ourselves, we can do nothing, we face an uncertain future."

"Very well Captain, I shall follow your advice. But I will have to tell my superiors what you have just told me."

"Do that, Colonel. We need to let the right people know what's happening here and I do not have time at the present."

"Good luck Captain, may your God be with you."

"Thank you Colonel."

Guy held a briefing for the soldiers that were to assist with the next collection of samples. The six men facing him looked anxious as he spoke.

"There will be eight of us, including Doctor Berkley. Our mission is to discover how far the contamination from this object has spread. We know it extends at least fifty metres from the centre, so we will commence in that area, working our way back towards the camp. Each of you will carry ten sample containers. We will spread out across an arc of thirty degrees with the camp at the centre of the arc.

"At each sampling station, approximately every fifteen meters, you will take your sample. Do this by sweeping across the sand at arms reach to maximise the area you are taking from. This will give us the best random sampling coverage." He depicted the plan graphically by drawing it out on a board. "Any questions?"

"Sir, er, Professor," said Corporal Dexter, "there are rumours the disease, or whatever, is already here, at the camp. Aren't we in danger?"

"We don't know that, which is why we are conducting this next investigation. It is true I have stated that as a possibility, but that's all it is."

"But if it is here and we've been exposed, what then?"

"To be honest Corporal, I don't know. The original scientists are very ill in hospital, but they may have been exposed to something else, something more local to the object, perhaps a gas."

Corporal Dexter looked doubtful, Guy knew he was trying to pull the wool over their eyes and it wasn't working.

"We've got a job to do men," said Guy. "Let's get suited up."

Leon had been stood at the back of the meeting and approached Guy as the soldiers moved away.

"I'm worried Guy, and so are those men."

"And you think I'm not?"

The sound of a distant helicopter broke the conversation. It drew closer.

"That must be our microscope, it's a bit earlier than I expected," said Guy.

"A question Guy. How are we going to use it? It won't fit the protection cabinet."

"There's only one way. We stay suited up, seal ourselves in the lab and do it there, in the open. After that, no matter what we find, our job is done. We'll have to abandon the lab of course, it'll be a no go area."

"Bloody hell Guy, we'll be in those suits for hours!"

"Sorry Leon, it's the only way. We'll equip our suits with water feeders, it will help, but we're just going to have to bear with it. Look, we have no choice. We'll start with samples closest to the camp. If they show positive then it won't take long but the camp will be classed as contaminated, game over for us all, possibly. If we have to work back through the samples until we get closer to the object it will take a long time but at least we will know we're safe here, for the time being. After that, I'm sure the order will come to move to a safer distance."

"Terrific!" said Guy. "Why don't you just sample around the camp then?"

"Common Leon, this isn't just about us. We need data on the rate of spread, for the greater scientific community, and the wider population. We're the pathfinders."

"I expect that's what the geologists thought too. Look where it got them!"

"The risk is with us now Leon, there's no way out, we've got to do what we came here for. I'm also going to take a look inside the geologist's lab, to see the other artefact."

"You're crazy Guy!"

"It's OK, I can do that on my own, with one of the soldiers to get me in. Come on, we need to get the microscope sorted out before we go in. One of the techie soldiers should be able to set it up."

The helicopter was about to drop its payload onto the ground when Guy met Captain Kealty. Guy gave him instructions as to where it was to be placed and the Captain assured him that it would be powered up and ready to go on their return.

Guy donned the last of his protective clothing and stepped out into the sun. It was considerably hotter than their morning venture but he took comfort in the fact it was now late afternoon. The worst was over and the temperatures would begin to drop soon as the sun lowered. Leon and the soldiers followed, all had radio communications and soon he heard comments regarding the unpleasantness of the working conditions. He was feeling it too but was driven by scientific curiosity. Nevertheless, he had to take a position of leadership.

"I know it's uncomfortable men. You know what to do, let's get the job done and we'll be out of it soon enough. Let's go."

He led the group close to the anomaly then showed each soldier his starting point and the direction to sample. He summoned the soldier who had brought the bolt cutters and headed towards the geologists lab.

"You're really going for it?" said Leon.

"Of course! We won't be long. You make a start, myself and Private Bridges here will catch up."

Guy reached the cabin and with a couple of cuts Sam Bridges broke open the door.

"OK, stand back" said Guy.

He pulled open the door and a freezing cold blast of air blew past him, cold enough that he could feel an immediate, and welcome, drop in body temperature. He had little time to consider relishing it before his attention was drawn to what he saw in the lab.

The obelisk, of which he had seen photographs relayed from the BGS, was no longer inert. It was pulsing with light, surging from its natural dark colour to an electric blue flowing

up and down the object. Symbols carved on it were independently flashing in gold.

“Jesus!” said Guy as he stepped gingerly into the lab.

“What the fuck...” Exclaimed Sam, peering over Guy’s shoulder..

A low droning sound came from the object, the volume increased as the pair stepped further into the lab.

“I don’t like the look of this,” said Sam.

“This is incredible!” said Guy. “I’ve got to get some photos.”

He extracted a camera from the bag on his utility belt and began shooting.

“Control, are you getting this on audio and visual?”

“You bet,” said Jonathan.”what the hell have you got out there? Get some photos and then back off, leave it. That’s an order!”

“Suits me fine,” said Sam. He sounded anxious.

“OK,” said Guy.” Got it, let’s get out of here.”

They turned to leave and as Guy stepped out there was a loud sound, like the whoosh of a ballistic shell, then a muffled cry as Sam fell onto his back. Guy was thrown forward leaving Sam lying face down on top of him, half in and half out of the cabin. Guy pushed Sam away and was gripped with terror; a hole, the size of a dinner plate, had been burnt right through him. He could see the ground through what should have been Sam's chest, ribcage, and spine.

Panic gave way to nausea. Guy threw up inside his suit.

Captain Kealty saw the bright flash on his monitor in the command vehicle, he almost jumped out of his seat. On another screen was the video feed from Guy and Private Bridges; Bridges one had gone blank and Guy’s span around wildly. As Guy steadied himself and faced the body of Private Bridges, Jonathan froze. The picture from Guy’s camera was clear - and terrible.

For a moment Jonathan was speechless, and then a beam of light shone out from the geologist's cabin and intersected with the other object outside on the sand.

*What the fuck!* he thought to himself then keyed the microphone, “get the hell out of there Guy, now!”

Guy’s reply was distorted with the static of white noise, “but, Private Bridges!”

“He’s gone, there’s nothing you can do, move it!”

Jonathan leant back in his chair and rubbed his eyes. “Oh shit,” he whispered to himself.

He returned his attention to the monitors, the beam from the cabin was still playing on the canister, but nothing else seemed to be happening. The soldiers sent to gather the samples stood motionless, Guy was running towards them.

“Carry on with your task,” he heard Guy tell them, his voice wavering.

Jonathan felt like he was loosing control of the situation, so many unknown factors. One soldier down, by what power he didn’t know. The objects were of unknown origin. The disease carrying spores and their spread were of an unknown nature. The risk to himself and his men was likewise, unknown. There was no back-up; they were the best in the world, better than the Americans, Russians or Israelis in this field. And he was the man in charge. There was the Brigadier of course, but he was a figurehead, he didn't have the specialist knowledge.

Jonathan could never have foreseen the current circumstances when he joined the Army. Biological and chemical weapons research, well away from the field of operations, safe in a laboratory; such was the job promised by the Brigadier. Brigadier Gordon Young was a friend of Jonathan's family, serving with his father until Kealty senior was killed in action in the battle to free Egypt from the invasion by Libya and Sudan during the water-wars of 2022 to 2025.

Brigadier Young had kept a close eye on Jonathan as he progressed through university, and when he graduated from Cambridge with a Masters Degree in Biochemical Engineering he was determined to convince Jonathan that his knowledge could best be used in the service and defence of his country. Jonathan was won over, fondly recalling the Brigadiers friendship with the family and his support after his father was killed. He was a charming man, a bachelor who had shown a tactful romantic interest in his mother since then. Although the relationship was still platonic and Gordon didn't push, he believed his mother was warming to his desires. Jonathan was all for it, believing it would do her good. Enough time had passed.

Jonathan was fast-tracked through his early days in the Army, earmarked by the Brigadier for his own purposes. Jonathan grew to love the work. He had free reign to experiment and research, with a large budget that could only be equalled the very largest of commercial organisations in the field. Within reason, whatever he wanted he got. Now he was earning his money, as his thoughts returned to the present.

No decisions could be made until the results of the present survey were analysed, except for one task, the recovery of Private Bridge's body. The purpose two fold, the humanitarian factor, and to discover what kind of weapon was used against him. Jonathan could think of it in no other way, he had been killed with intent. Whatever it was, automated or controlled, a weapon was the only way to describe it. And what was that beam doing now? So many questions.

He called the brigadier on his sat-phone to inform him of Bridges death. The Brigadier was shocked.

"Jesus! I'll get the wheels turning to inform the next of kin. Can you get the video to me Jonathan?"

"Yes sir. But it makes unpleasant viewing."

"I'm sure it does, but I need to get a handle in what's going on out there."

"I'll get it straight to you sir."

## CHAPTER 7

Dr Petrakis entered the isolation ward to check the condition of Warren and Vincent. They had been unconscious for the past three hours. He bent down to test Vincent's pulse, his eyes suddenly opened. He was shocked to see the change in them, they had become almost feline. The colour of the iris's had changed to a bright yellow and their circumference had expanded. The pupils were no longer round but pointed oval shapes.

Vincent had difficulty speaking, "doctor, I need water," he stammered.

Dr Petrakis summoned the nurse to sort out the water while he took the opportunity to speak to Vincent. Both patients had been dropping out of consciousness so often he had difficulty finding out how they felt. The external signs were clear, their bodies were now almost fully covered in angry lesions and he had run out of tests to perform.

"How are you feeling Vincent?"

Vincent's speech was slow and laboured, "bad, my body feels hot, like it's on fire."

"Your temperature is high, we're trying different ways to bring it down. Any pain?"

"Not much really. How's Warren?"

"Much the same, he's sleeping at the moment. I'm doing what I can to get help for you Vincent. It's not something I should tell a patient, but I have to admit I'm at a loss regarding what to do."

Vincent faded away again, at least he had managed to drink some water.

Dr Petrakis slumped into his office chair. He gathered together his case notes, took a blank sheet of A4 paper, and began to write down the essential facts of the case, trying to consolidate his thoughts and produce something coherent to tell other authorities. He scribbled down sentences and repeatedly crossed them out. There was no medical precursor to the symptoms he was dealing with, all he could do was lay down the facts objectively and he was struggling to do even that. He rested his elbow on the desk, lowered his forehead onto his upturned palm, and took a deep breath.

Before he could think further his emergency phone rang.

"Petrakis"

"Doctor," a nurse said, "you'd better come down here quick."

"Why, what's happened?"

"One of the patients has died and the other has gone into convulsions."

"I'll be down in a moment." *Oh no*, he thought. He felt a sudden welling of fear deep inside. *What are the hell are they dealing with?* He needed help, perhaps he should have called for it sooner.

He resolved to attend to the remaining patient, assess the situation, and then make the calls for help and advice as soon as possible. He also needed to phone Russell Collins in the UK to give him the bad news, wondering if the dead man had family.

Leaving the office he walked down the corridor outside then took the lift to the isolation ward. He didn't acknowledge or even notice other staff passing by, he was too engrossed in his own thoughts. He arrived at the ward without even remembering how he got there.

He took in the scene in an instant, it was Vincent who had died, and his body was

already sealed up in a biohazard body bag. Two nurses were attending to Warren, he seemed settled and Barak assumed they had given him sedatives. Warren was the younger and stronger of the two, it was no surprise to him that Vincent had expired first.

“Doctor,” said one of the nurses, turning towards him.

“How is the remaining patient?”

“We’ve sedated him, his essential functions are showing normal readings, as normal as we’ve come to expect anyway.”

“Very well. Let me take a look.”

Barak examined Warren and found nothing but the steady deterioration he had been witnessing.

“I will request a full autopsy on Dr Dale, under Section 5 of the Emergency Health Protocol, in the meantime keep a close eye on Dr Franklin and let me know straight away of any changes.”

He walked to the nearby phone, lifted it and selected the pathology lab.

“This is Doctor Petrakis, I’d like to speak to Doctor Safar, please. Urgently.” After a short pause he heard Dr Safar's voice.

“Kamir, I’m glad I found you so quickly, I have a job for you.” He explained the full circumstances to him. “I would appreciate an emergency autopsy being carried out as soon as possible. Under full biohazard conditions.”

“I can arrange it within the hour,” said Kamir.

“Thank you, and if you could get the results to me as soon as possible?”

“I’m sure I can have them to you by the end of the afternoon.”

“Thank you. I’ll have the body moved to your unit forthwith.”

Barak relaxed a little, then remembered he had to call Russel. His hand hovered over the phone as he gathered courage;

"Dr Collins . . . "

After speaking to Russel, he decided to leave contacting outside authorities until he had the autopsy report, at least he could offer something more concrete. He organised the transport of the body and returned to his office. Dr Petrakis knew he needed help. But who?

A name sprang to mind, an old friend from long ago. Jed Stone. It was a call he could not put off.

## CHAPTER 8

Russell placed the telephone back into its holder with a sad sigh. He had known Vincent for many years, and his family too. A lump came to throat as he realised he had the awful task of telling Vincent's wife, Barbara. First he needed some air, his head was swimming.

He walked to the nearby park and sat on a bench, decisions had to be made and actions taken. Should he drive over to tell Barbara personally? It wasn't far by car, they lived on the outskirts of the city. Perhaps somebody else could take on the task; the Police? No, he had been given the news, it was his duty as friend and employer to deliver the message. He needed to contact the Brigadier also, perhaps he knew already, but if not he had a duty to his men in the field.

With slow steps he walked back to the office, steeling himself for the unpleasant and emotionally stressful visit he had to make. On arrival he phoned the Brigadier, it wasn't procrastination he told himself; he had to know as soon as possible.

"Gordon, hi, it's Russell. Have you heard anything from Egypt?"

"Russ, good to hear from you. Yes, I'm getting alarming reports, one of my men has been killed."

Russell's heart missed a beat, thinking it was due to the same cause as Vince and Warren, "how?"

Gordon described the incident with Private Bridges and his own scientist while examining the BGS laboratory.

"My God" What's happening out there?"

"I don't know Russ, they're running some more tests after a field survey, we should know more by tonight."

"The main reason I'm calling; have you heard anything about my men in the hospital?"

"No. Why?"

"One of them has died."

"Bugger. I'm sorry to hear that Russ."

"It was from whatever they picked up out there at the site. I don't think the other man, Warren Franklin, will last much longer. I thought you should know."

"Thanks, that's worrying news. I'll get onto my team right away. Keep in touch."

"Will do. Cheerio Gordon."

Russell's mind raced back to the present and he called Barbara. She was worried as to why he needed to visit her at home at this time of day and with Vince away in Egypt. Russell had a hard time convincing her that what he had to say couldn't be said over the phone. This concerned her even more. Finally, with shaking hands he told her he would be over in twenty minutes, "Please Barbara, just wait until I get there."

With a heavy heart he picked up his car keys and took the lift to the underground car park. The drive was slow, as he weaved through the afternoon traffic the journey seemed interminable, like the longest he had ever undertaken. He tried to think how he would tell her, the words he would use. Nothing came but a sad heaviness in his heart.

Eventually he arrived at Barbara's house he glanced at his watch, twenty three minutes

since he left the office. He wondered what had been going through her mind in that time.

Resting his forehead on the steering wheel he clenched his fists around it and composed himself. After a moment he forced himself out of the car and walked up the driveway to the front door. He thought back to all the happy times he had trodden this path after evenings with Vince and Barbara, and his own wife Helen.

He took a deep breath and pressed the door bell. Barbara was there almost instantly, she must have heard his car draw up. The door opened.

"Russ, what is it, has something happened to Vince? I haven't heard from him for a couple of days."

"Barbara, can I come in, please."

She led him to the lounge and sat down nervously. Russell took a seat opposite, his hands were restless and he felt his chest tightening, he took a laboured breath and looked her straight in the eye.

"Barbara, there's something happening in Egypt, we don't know what it is. Vince went out to investigate and became ill. I'm so sorry Barbara, he passed away this morning in hospital."

He thought that would be the worst of it over, the telling was done. But as he saw confusion and doubt in her eyes, followed by a look of incomprehension and then immense sadness, his throat constricted and his eyes began to water.

Finally, Barbara let out a pitiful moan, faint and pained.

"I'm sorry Barbara." he added, though his words now seemed superfluous. She was dealing with a world that was being torn apart and all he could say was sorry. Why do people do that in these circumstances, he wondered, like saying 'is there something I can get you?' No, there is nothing. What should he do, put an arm around her, try to comfort her? His thoughts were answered.

"Please Russ, hold me," she whispered.

He moved over to the couch and put his arm around her, she buried her face in in the crook of his neck, shuddered and let out an unearthly scream. And then the tears flowed. Her body shook and trembled as she sobbed, he could feel his shirt becoming soaked from her tears.

How long they stayed like that he was unsure, but finally the tears subsided and she looked up. The face he saw was one of utter despair, her eye make-up had run in dark streaks down her cheeks and then been smeared across her face by his shirt, giving her skin a blue/green palour, her hair was wet and clinging to her cheeks.

"Thank you," she said, her voice barely audible.

"For what?"

"For being here. That it was you who told me."

He put his other hand on her head, drew it close and kissed her hair.

"I don't know what else to say, Barbara."

"Tell me. Tell me about it all, what happened."

"Are you sure you want to hear it right now?"

"Yes. I need to know. Please."

Russell told her all he could but omitted some details. He thought it best to avoid mentioning the full autopsy Dr Petrakis was organising, or even the repatriation of the body at this stage, but did describe the physical mutations that had taken place as far as his limited

knowledge went.

"They don't know what they're dealing with out there, and I'm almost out of the loop now that . . . I'm sorry . . . "

"I know what you're trying to say Russ."

"I'm afraid his colleague, Warren, won't last long. I've got a bad feeling about this, Barbara. They won't be the last.

Jonathan's phone buzzed and he took the call.

"Jonathan?"

"Yes, speaking."

"It's the Brigadier."

"Good afternoon sir."

"Have you heard from the hospital?"

"No. What's happened?"

"One of those archaeologist chaps has died and it looks like the other won't have long."

"My God! And they still think it's something they picked up out here, at the site?"

"I'm afraid so Jonathan. There seems to be no doubt, but they still have no idea what the illness is, How are you guys doing out there?"

"I was about to contact you, To tell the truth sir, I'm getting worried, especially since we lost Private Bridges. The scientists are analysing the results of their last survey, to check the spread of the spores, that will be the turning point." Jonathan wanted to say so much more but couldn't admit to the Brigadier that he felt as though he were getting out of his depth.

"Let me know as soon as you get the results and we'll take it from there."

"Will do sir."

As the Brigadier ended the call, Jonathan's head was reeling; the loss of Bridges and now the death of the archaeologist. He could see potential for the situation to spiral out of control. He needed the report from Guy, and he wanted more information from Dr Petrakis.

His phone rang again, by coincidence it was Barak calling from the hospital. He was surprised the information concerning Vincent's death had reached Jonathan so quickly and informed him of the imminent autopsy.

"I am hoping Jonathan, that with what we learn from the autopsy and from your tests out in the field we will be placed in a better position to deal with this."

"I pray that you're right Barak."

"Please, let me know what you find and I will do the same, we need to work together."

"I agree. I'm just going now to see how our scientists are getting on, I'll keep in touch."

"Thank you Jonathan, goodbye."

Jonathan felt the pressure bearing down on him, he was in charge yet walking into the unknown. He made his way from the command vehicle to the laboratory. Guy and Leon were still suited up and clearly struggling from the heat and the effort of their task. The soldiers who had assisted were being processed through the cleansing station, they too were exhausted and passed admiring and incredulous glances towards the scientists as they dragged the sample container into the lab.

Jonathan caught Guy's attention.

"Guy, I've had the men set up extra air conditioning in the lab. It should make things a bit more comfortable. The microscope is inside too, all powered up and ready to go."

"Thanks Jonathan."

Guy's voice was muffled from within his suit but Jonathan picked up the tone of stress and exhaustion. He was sure too, that there was an emotional edge to his speech. He had witnessed the death of Private Bridges close at hand, a very unpleasant death, within the past hour.

"Good luck."

Jonathan cast a last look at the anomaly in the distance. It was still being illuminated by the beam from the obelisk in the lab. He shuddered involuntarily.

Guy and Leon loaded the last sample bottles into the lab, gave the microscope a basic function check, and then sealed the door. Video and audio feeds were still in place inside the lab and also via the suits Guy and Leon were wearing as they set to work.

There wasn't much to see or hear for the observers over the next two hours, they could only wait. A few sighs and shaking of heads by the scientists were questioned, but went unanswered. Jonathan watched, his fate being determined.

At 1710 hours Dr Petrakis was summoned to the autopsy lab by Dr Safar. He hurried down the five floors using the stairwell, he was anxious to know the results and lacked the patience to wait for the lift. Arriving out of breath he reminded himself to take more regular exercise. Dr Safar was inserting slides into a microscope as Barak entered the clean-lab, the anteroom to that held the remains of Vincent's body. He had passed a cursory glance into there and wished he hadn't. He was used to the internals of the human body but still baulked at the sight of a full abdominal and chest cavity incision.

Kamir turned towards him with a frown, "ah, Barak, welcome. Please, tell me about this man."

"I wish you could tell me, Kamir."

"What was wrong with him? What was he in contact with? I have never seen anything like this in my life."

"My own words, exactly, Kamir."

Barak told him all he knew, which in reality wasn't very much, that he'd picked up something from an archaeological excavation.

"Remarkable. And you say there is another?" asked Kamir

"Yes. I don't think he will last the day."

"Come, take a look at the body."

"I'd rather not."

"Barak," he said seriously, "I really think you should."

"Are we protected?"

"Of course, as you can see, the body is inside a biohazard cabinet. Not the easiest way to work but . . ." He shrugged.

"Ok, I'll come."

Barak managed to keep his stomach in place as he approached the body. As he drew closer all thoughts of being sick were displaced by shock and horror. He found autopsies unpleasant but he knew what the insides of a body looked like, not like this.

"See," said Kamir, "the changes in the structure of the organs?"

Barak had pick these up on the scans but wasn't prepared for the full vision in 3D and colour.

"It is almost like the body is trying to change species. Look here, on the internet, compare his heart to that of a lizard, and here, his lungs to those of a bird. I could go on. I can't believe what I'm saying, this is a human being becoming something else. Yet the organs are healthy!"

"Then what was the cause of death?"

"That, my friend, is where it becomes bizarre. He didn't die in the normal way."

"What do you mean by that?"

"I've said his organs were healthy, yes? A body dies through organ failure, the heart, or the lungs, or something wrong with the blood, for example. One or more things give up, then what happens?"

"The person dies, the heart stops, whatever."

"Then what? said Kamir.

"Rigormortis . . ."

"Before that, what is the fundamental indicator of death?"

"Ah, the brain. The brain dies through lack of blood and oxygen."

"Correct. Except in the case of massive trauma to the brain But here, the brain died first. It told the body to shut down. It killed itself!"

"What!"

"Every chemical precursor to brain death is there, but not a single one from organ failure. I was just doing some final tests to confirm as you came in. And another thing, the DNA has changed. The only way we'll get to the bottom of this is with a full DNA sequencing test."

"We don't have the equipment here."

"No, but Halday Biotech Industries, two kilometres away does."

"At this time of day it will be too late, it will have to wait until tomorrow," said Barak.

"Not necessarily. I know one of the lab managers over there, we're good friends. I think I can call in a favour. Give me a moment while I call him."

While Safar was on the phone Barak examined his notes and the microscope slides. Though he was dealing with something outside his own specialisation he soon saw what Safar had seen. It was clear cut, the chemical markers alone proved it.

"You've convinced me," he said, as Safar came back from his call, "you're right."

"I'm glad you agree, I though I may be going mad," Safar smiled. "And good news, my friend will do the testing this evening. I need to get a blood sample over there within half an hour then we're set, we'll work on it together."

"Great! Will you let me know as soon as you're finished?"

"Of course my friend. Then we drink, yes?"

"I think I'll need it," said Barak. "Later, then."

Barak returned to his ward and to Warren. He appeared stable and the nurse had nothing

to report. He sat down in a chair next to Warren's bed, looked at him, and thought of what he'd learnt from Kamir. A brain ordering the body, and itself to stop. Bizarre indeed, and terrifying. Was that the same fate Warren was heading towards, the brain in his head would simply kill him? What was the trigger, was there any knowledge on the part of the victim? Many questions.

For the first time he also considered how easy the spread of the condition might be. Was it a disease that could be spread by touch, or bodily fluids, or sneezing; perhaps it could be airborne? Or was it an illness caused purely by what they had come into contact with, non transferable like poisoning? They had taken reasonable precautions in the hospital, the isolation ward, limited number of people in contact with the patients, gloves, masks and antiviral/antibacterial air conditioning and extraction systems. Was he himself at risk?

Warren stirred and looked at Barak. He appeared to be fully conscious and spoke, "doctor, I need water."

Barak fetched the water and handed it to Warren in a plastic cup. He was determined to stay, so long as Warren remained conscious, to try and answer the question of what the mind did at the end. He had nowhere else to go as he waited for news from Kamir.

He made light conversation with Warren, enjoying the banter of two intellectuals from different fields, a refreshing change from the world of medicine that was his focus everyday. As they spoke he had an idea, Warren was connected up to various machines monitoring his essential functions, but nothing monitoring his brain waves. He discussed his desire to use an electroencephalograph with Warren, who agreed, and tasked a nurse to bring the equipment. It was a simple device, unobtrusive, just a skull cap with numerous wires attached. When it was fitted Warren joked about how he must look, 'a bad hair day' was his favourite phrase. Eventually the novelty wore off and they continued talking. Barak fished for more details about the project out near the pyramids, fascinated by the account of the magnetic anomaly, when suddenly Warren's voice changed and he dropped his cup of water.

"Doc, something's happening!"

"What. What do you feel Warren?"

"I don't know, my body is fine, no pain, but my mind feels like it's becoming spaced out. What's happening doc?"

"I don't know." But Barak's attention was focussed on the ECG display which was showing abnormal readings.

"It feels like something is coming into my mind, taking over," said Warren.

Barak called the nurse, but they could do nothing. Without warning the ECG display readings bounced around in a flurry of activity indicating massive neural activity and commands to the body, when suddenly they all went to zero, Warren let out a brief gasp, and then slowly his body functions shut down one by one. He was dead.

Guy and Leon emerged from the lab after two hours of hot, painstaking work. They had given nothing away in that time, avoiding all communication with the outside world as they focussed on their tests. Guy resealed the lab and placed a sign on the door, 'Prohibited Entry - BioHazard'.

There wasn't much more they could do now, Guy thought, the lab is out of bounds, just

our findings to report. The microscope was going to cost them a substantial sum to replace, unless they could find a way to decontaminate it, a most unlikely scenario. Jonathan 'hired' it from the university but said nothing about it being a one way trip. Of course, it had been signed for with full liability held by the British if it was damaged, that would be honoured. But the microscope was the least of his concerns, what they had discovered overshadowed that entirely.

All Guy could think about at that moment was a cool beer and relaxation but work was far from over. First they had to go through the decontamination process, then the report needed compiling before being finally disseminated to all the relevant parties.

He entered the first stage of the cleansing station a very worried man.

In the command vehicle a silence fell as Guy climbed the steps and entered, with Leon close behind. The whole crew were gathered, awaiting his report with concerned faces, twenty four of them cramped into the limited space. He took a deep breath, almost a sigh, he was exhausted and the last thing he wanted to do was talk. Captain Kealty sat at the front and their eyes met for a few moments, anxious energy passed between them. Guy could see that Jonathan was under pressure, and the stress wouldn't lighten after he had spoken. He and Leon took up position in front of the men, Leon sat down but Guy remained standing.

"Gentlemen," said Guy "if we could reduce the lighting please." He connected his laptop to the projector whilst a soldier at the back dimmed the lights.

Guy gathered his thoughts, he had to come straight to the point first and take it from there.

"I'm sure I have your full attention, but you must listen carefully to what I tell you...."

"Excuse me Guy." Captain said.

"Yes?"

"I'd like to address the men, briefly, before you commence."

"Sure, go ahead."

Jonathan stood and faced the men, everything had moved so fast he hadn't had time to make a general announcement about the deaths of the geologists; he had only been told of Warren's passing moments before this meeting.

After telling them, worried whispers ran around the group like a mouse darting from person to person.

Guy was as shocked as the rest; he cleared his throat regaining their attention and his own composure as Jonathan sat down. "I think that indicates the severity of the situation. Allow me to explain."

He brought up an image, a plan of the area covering a two kilometre radius centered on the anomaly. He overlaid that with a red shape extending from the anomaly to within the border of their camp.

"This, I'm afraid, is how far the spores have spread; they are here, among us."

Muted gasps came from his audience.

"I can only mitigate your concerns by saying that the samples from the border of our camp showed mere traces, we had to use a high power microscope to detect them at all."

He changed images.

"These are enhanced pictures of the spores, the larger ones from close to the anomaly and the smaller ones, which had to be magnified one thousand times."

"The growth in size," said Leon, "is remarkable in itself, spores don't usually change

much in size.”

“Yes, thank you Leon. The spores are encased in delicate containers as you see, extremely brittle and therefore easily released. We still know little about the illness the dead scientists contracted. The Captain has been in contact with the specialist at the hospital who has conducted tests but is baffled by what he has found, which essentially is DNA mutations. It is still conjecture that they caught the illness from the spores, but it is the most reasonable assumption at the present time.

“On that basis, we face an uncertain time. The lab is now contaminated and out of bounds, therefore we have reached the limits of our work. I have retained live samples for further analysis back in the UK. I suggest that we pull out immediately. However, precautions must be taken.

“We don’t know if the illness can be spread person to person, or only by contact with the spores. No incidents of infection have been reported from the hospital staff, but they were using at least minimal protection while dealing with the two scientists.

“Sir,” he spoke directly to the Captain. “I respectfully suggest that we move further out into the desert, up wind of the source, and quarantine ourselves for a period of days.”

“How long do you suggest?” said Jonathan.

“The unfortunate scientists saw the first signs of disease within thirty six hours of excavating and opening the object. We can assume onset is fairly rapid after contact, I think four days would be appropriate. We need to alert the Egyptian authorities urgently and, I suggest, other international authorities.”

“I think that would be most appropriate.”

“The Egyptian guard I would consider safe at the moment, for how long, I can’t say. But they need to retreat as far as possible.”

“And beyond that?” said Jonathan. “If this thing is spreading, the prevailing wind will carry it towards the city.”

“Indeed. We have to treat this as a major incident. I may be wrong in my assessment but we have to take the worst case. The Egyptian government must understand that.”

“What is the worst case Guy?”

“I wish you hadn’t asked that. Worst scenario? The spores are carried to the city, potentially infecting hundreds of thousands, we know almost nothing about the disease, let alone a cure, and it has proved fatal. And if the growth of this organism spreads further, to other cities, to continental Europe? We could have a pandemic.”

“I hope you are wrong Guy.”

“Believe me, I do too. Well, that is all I have to say. I have a more in depth report for you sir, of academic interest really, more a scientific report. The tactical facts are our main focus for now.”

“I agree,” said Jonathan. He turned around and spoke to Sergeant Fuller. “Sergeant, make ready to move the base. We will decide exactly where in due course.”

“Yes sir,” said the Sergeant.

“Thank you for your hard work Guy,” said Jonathan. “Give me your report and I’ll get it sent to the Brigadier, then he can handle the higher stuff. We’ve got enough to deal with here.”

Guy handed the document over and Jonathan moved to the communications

compartment, reading it as he moved. The other men began to exit, receiving orders from the Sergeant to make preparations to relocate. Within moments Sergeant Fuller returned.

"Sir," he said to Guy, "I think you and the Captain ought to come outside."

Guy stepped out with Jonathan close behind him, the Sergeant pointed to towards the anomaly, the beam was still playing on it, but something else was happening.

"Oh, my God!" said Jonathan.

"The beam must be giving it energy," said Guy. His gaze was transfixed on the sight in front of him.

The orange/red stain, marking of the active area of the growth, was now expanding at a slow walking pace; insidious, frightening, and unstoppable.

"My other patient died a short time ago, but you were right," Barak said, as he sat down with Kamir and handed him a glass of coffee in their favourite watering hole down near the old souk. "I saw it with my own eyes."

"I'm sorry, can you tell me what happened at the end."

Barak described Warren's last moments while hooked up to an ECG.

"Incredible! I mean, it's what I expected, but for you to confirm seeing it first hand . . ."

"He said something about it felt like his mind was being taken over."

"Yes, yes, now look, my friend Doctor Falsi produced results, I have the DNA analysis here. I guess you're not an expert in this?"

"No, not really."

"OK, I'll walk you through it. You know the basics, the building blocks, the alphabet of adenine, cytosine, guanine and thymine."

"Yes, I'm familiar with the theory; replication, mutation and amino acids, but not these charts, they're beyond me."

"Well good, you should be able to follow. I must warn you, the results are unbelievable but genuine, there can be no mistake. Now, look at these two charts, the left hand one is your man, the right is my own."

"You sampled yourself?"

"Easy, and you'll see why. Now, we'll see some minor differences in the genes, the differences that make us individual, but there are areas that should be the same, roughly. Here."

Kamir pointed to corresponding areas of the two chart, Barak watched intently.

"Different," said Kamir, "very different. To go further is complicated and time consuming but I worked on a hunch. We talked about organ changes, the lungs of a bird and the heart of a lizard?"

"Yes."

"Right. Well, the company has gene sequencing records of several species, so . . ."

Kamir's hands moved with increased animation as he produced more charts until he laid them out in front of Barak.

"What?" said Barak.

"This is the genome sequence of a bird, we line them up and . . . see! The traces here,

from your patient, bear more resemblance to a bird than a human, unbelievable!"

"What does it mean?"

"Isn't it clear?"

"Mutation?" said Barak.

"Yes! But this unprecedented, sort term mutation to another species, at least in some characteristics. I couldn't believe it at first, so I did some more cross checking. The eyes, right?"

"They looked feline," said Barak.

"Indeed. It took some time, selecting different species but I hit gold. They're not feline, but reptilian. Look."

Barak lent back, stunned.

"Look, my friend, I haven't a clue how this could happen," said Kamir. "To work out exactly what has happened to this body is a task of immense proportions and complexity. I honestly doubt that here, in Egypt, we have the resources to figure this out alone."

"I've already contacted an old friend of mine at the Centres for Disease Control in Washington, and intend to give the World Health Organisation the heads up next." said Barak

"I would suggest you do that as soon as possible. Is there any likelihood that anyone else could have been affected, or infected?"

"I'm afraid there's every chance. A British biohazard team is working out in the desert where we believe my patients contracted their condition."

"Tell me about it."

Barak relayed the limited information he had about the anomaly including the death of a soldier by some kind of light beam.

A thought suddenly occurred to Kamir, and he recalled an ancient Egyptian legend. Pieces of the jigsaw began to fall into place. Fear gripped him. "In the name of Allah, peace be upon him, what have they done?"

## CHAPTER 9

### Angola

On the drive out to his tent, Jed found himself fantasizing about the evening ahead with Naomi. He knew he had to impose some self-discipline; work must come first. She was growing on him in a way he could not have foreseen. He was sensing so much more, such as the feel of her skin when he gave her the massage. Now he was picking up her scent, not perfume, simply her nature pleasant odour. He longed to run his fingers through her beautiful hair, to caress and smell it.

He forced the thoughts from his mind and turned them to the work ahead. He drove without thinking, instead he chewed over everything he could remember about cell construction and genetic replication. What he had relayed to Naomi was simply an overview, the reality was one of the wonders of nature; how life was self-perpetuating.

The principles were well understood now, but to create an artificial living cell which could survive, thrive, and reproduce was tantamount to playing God. Thus, the technology was controversial and subject to scrutiny by regulating authorities. The potential for misuse was clear, whether some sort of biological weapon which could be both highly selective and devastating, or to produce a 'Frankenstein' creation. As a scientist, Jed was less concerned with the moral aspects, more the unlimited potential for saving lives. The production of the T-cell they had tested was straight forward, to add reproduction was a huge task.

It wasn't the first time Jed had gone down this path. In his previous research he had developed a program to calculate the parameters and chemical compounds required. It had yet to be proven.

They reached the tent and were greeted by Hanameel.

"Boss and missus, welcome back!"

"Hey, Han." Said Naomi. "How are you?"

"Me good. All tidy and food made for you."

"Curry again?"

"No, *Caldeirada de cabrito*," he said in a perfect Portuguese accent. "Goat stew with rice. Very good, my own recipe."

"We'll look forward to it, thanks, Han," said Jed. "We have some very important work to do which needs a lot of concentration, so we need to be on our own."

"I understand." Han smiled.

"Come back with the ATV in the morning."

“Will do, boss. Goodnight.”

Once Han was clear, Naomi gave Jed a passionate kiss. “That’s a promise for later. But now, let’s work.”

“My thoughts to. Work then pleasure.”

“Where are you going to start, Jed?”

“First, I need to meditate, to clear my head and focus.”

“Okay, while you do, I’ll read through your work on cell division.”

Jed walked fifty metres from the tent and unfolded his chair. He turned it so he would face the setting sun and sat down. In his usual manner, he pulled his hat over his eyes and began deep, steady breathing. He fixed his attention on his breath, in, out, and the space between. Soon he found the familiar feeling of detachment from his conscious train of thought.

Somewhere he knew, perhaps in different realms, was the knowledge he needed. Countless individuals across the ages, scientists, writers, artists, inventors and many more disciplines, had stated that the greatest revelations came to them when they weren't thinking. They came from 'nowhere', out of the ether. Some postulated about the collective consciousness, a repository of all knowledge, past, present, and future, that could be accessed in certain states. This tied in with the theory that time as we knew it did not exist. All of existence was already mapped out, the future included. We marched through a pre-existing story and our only way of interpreting this was to create the artificial construct of time.

Jed studied such things, but as far as his ideas were concerned, it didn't matter where they came from. In his practical, pragmatic view, they came and were there to be used.

He detached himself from all thought as far as possible, allowing any images or ideas to play in front of him like a movie, coming and going without attachment.

He remained in this state for twenty-five minutes, with a few minor lapses. He looked up to see the sun dipping below the horizon, casting a luminous orange glow into half the sky over the open grassland. The scene added to his contentment as he withdrew from his meditation. He smiled and stretched his body as he left the chair. He didn’t expect answers now, but the seed had been sown; with a bit of luck he would receive some inspiration eventually.

Jed walked back to the tent to find Naomi buried in work, piecing together information and making calculations.

“How’s it going?”

“My side of things is okay, Jed. Nothing much changes. But your part, well, I’m not in your league with that.”

“To be honest, I’m not sure where to begin yet.”

“How was your meditation?”

“Good, I really got in the zone.”

“Will it help?”

“It always helps to focus the mind. Anything more, we’ll have to see. I’m going to browse all the information I have and see what happens.”

Jed opened his laptop on which he had several books about cell reproduction and some research papers from a top university.

“This may take some time.”

“That’s okay, there’s plenty for me to try to get my head around.”

Both studied for over four hours, then Jed stood up.

“I’m done for now, time for a nightcap.”

“Any flashes of inspiration?”

“Nothing yet. How about you?”

“I’m beginning to understand the principals, but I’m done too.”

“Wine, white or red?”

“I’ll take red.”

“That’s unusual for you?”

“I see no fridge and warm white is pretty rank.”

You’re right. I’ll join you in a bottle.”

They stepped outside to get some fresh evening air. The sky was cloudless and there was no light from the village. Jed gazed up and beheld in wonder the beauty of the Milky Way, and the billions of other stars scattered over the firmament. It never ceased to move him, making him feel empowered in its grandeur, yet at the same time so small and insignificant.

Almost unconsciously, he reached for Naomi’s hand and thrilled at her touch when she squeezed it gently.

“It’s beautiful, Jed.”

“It is. Magnificent.”

“Not often we see it like this, so much artificial light at home.”

He turned and kissed her. She moaned as his tongue probed her mouth.

“Oh, Jed. You devil, you always make me want you.”

“Let’s finish this wine first. This moment is too good to miss.”

They sat, holding hands, and stared at the sky.

“I’m worried,” said Jed.

“What about?”

“I don’t know if I can do this. Make these cells work. What we’ve got now will be the basis of a vaccine, I’m sure of that. But potentially, there are going to be hundreds of thousands suffering from the disease before the vaccination can take hold. We need a cure.”

“You seemed so confident earlier.”

“The more I’ve thought about it, the more I doubt it can be done.”

“Sleep on it. Maybe throw your ideas around with the other scientists, a bit of brainstorming may yield the answer.”

“You’re right. My head is mashed now.”

“Even yours?”

“Yes, even mine can only give so much.” He smiled.

She returned his smile and all thoughts of failure ebbed away. Her eyes shone with care, passion, and desire. Her smile melted through his heart. Right now, she was the most attractive, sexy woman he had ever seen. It was not the first time she had made him feel this way.

She finished her wine.

“Take me to be, Jed,” she purred.

He wanted her more than anything in this moment. The disease, research, work, responsibilities; all dropped away to oblivion. There was him and her. This stunning woman for whom, he had to admit, he was getting feelings. For a second he felt vulnerable, like a child. She was drawing him in, nurturing his soul, he sensed another side to himself.

He drank the last of his wine and took her hand.

They stood face to face by the bed and he began to undress her. She unbuttoned his shirt and unbuckled his belt. Soon, they were naked. Hands, tongues, and lips roamed each other’s bodies until both were desperate for the ultimate consummation.

Jed moved on top of her. There was a pleading in her eyes, and he teased her for a time before finally taking her.

Naomi reached her first orgasm and cried out, then kissed him passionately, sucking in his breath. He carried on as she held him tight, moaning into his ear. A few minutes later she came again, and Jed could hold back no longer. He reached his own peak, more intense than their first night, and then collapsed on top of her. As their breathing eased, he rolled to the side and they lay in each other’s arms exhausted.

Naomi was the first to speak after a long period of gentle stroking and kissing.

“Jed, that was wonderful. You now all the buttons to push, you turned me to jelly.”

He kissed her. “I’m glad I make you happy.”

“More than happy.”

“Another bottle of wine.”

“Well, a glass or two. We have work tomorrow.”

“Let’s have it in bed,” he said.

They didn’t get far through the next bottle before falling asleep.

Jed drifted into strange dreams. He tossed and turned most of the night until he awoke with a start at four-thirty in the morning.

He sat up straight away, trying to keep a grip on the thoughts running through his mind.

Naomi stirred. “What is it, Jed?”

“I’ve seen it! The answer!”

“What?”

“I know how to do it.”

He leaped out of bed and rushed to his small desk, still naked, and made hurried, scribbled notes. Naomi was soon beside him and put her hand on his shoulder. She knew better than to disrupt his thoughts further.

After half an hour, Jed turned around.

Naomi giggled. “You still haven’t got any clothes on.”

Jed waved a hand. “Not important, it’s warm enough.”

“So, are you going to tell me?”

“Okay, in a flash of inspiration I saw the solution. I don’t know why I didn’t think of it before, but in any case, we need the synthetic T-cell. We combine it with a normal T-cell, straight from the body of a healthy person, from me if necessary. We use the resilience of the synthetic cell with the replicative and higher functions of the natural cell, combining the two. All I need now is the external signaling of the virus, what enzymes or chemical compounds it emits. We will use that as the trigger for the T-cell to begin cell division. What I envisage is they will begin multiplying in a controlled manner only in the presence of the virus. We don’t want runaway reproduction causing tumors.”

“You make it sound simple.”

“It’s based on known technology, like T-cell cancer therapy using chimeric antigen receptors. It is achievable, I’ve seen it, I can make it work.”

For the next three days, the whole team worked on Jed’s theory. Nobody could argue against it, they had nothing else. If he was right, it would also provide a direct path to a vaccine.

Jed volunteered his blood to be used for the extraction of the T-cells, a straightforward and painless process. The cells were extracted and placed in a culture. Once stabilised the next stage could begin.

Ken and Helena had taken onboard Jed’s theory and were the two out of the entire team who understood it fully. They wanted a crack at developing the modified cells and Jed had no objection. The more minds on the challenge, the better.

He had been feeling a bit off the past couple of days and was in self-denial about a minor fever. But at two-thirty in the afternoon, just as he began a crucial part of the experiment, he collapsed.

Naomi rushed over and knelt beside him. Three other doctors were soon with him.

Jed regained consciousness after a few moments and looked around. His vision was blurred.

The reason soon became clear as Helena came in from the other lab.

“When we analysed his blood we found he is carrying the virus.”

“Oh no!” said Naomi. “How far along is he?”

“It’s difficult to say, but it looks like early stages. He probably contracted it three days ago.”

Naomi thought of Hanameel, but Jed had also been into the village recently.

“That means he may have only four days until his condition becomes critical!”

“That’s right,” said Helena.

“Is there anything that can help?”

“We can give him anti-viral drugs, it will hold back some of the symptoms, but it won’t stop it.”

“Do what you can,” said Naomi. “We need him.”

It was true he was the key person in this research, but she had her own personal reasons for caring about his wellbeing, beyond that of a normal colleague.

“Okay, we’ll start him on a course right away,” said Helena.

Jed recovered enough to stand up.

“You need to rest,” said Naomi.

“I can’t do that, there is too much to do. We’re going to have to start again, my blood is contaminated with the virus, we need a new sample.”

“Take mine,” said Helena.

With another sample extracted they began again.

Jed worked too. He was feeling nauseous and he ached, but now had a very pressing, personal reason to find a cure. It was part of the job for scientist at the forefront of such diseases to be at risk themselves. Many had lost their lives in previous outbreaks, making the ultimate sacrifice in their search for cures. Jed didn’t want to be another statistic.

Despite his urge to work, he found he needed to sit for a while.

“Are you okay? I’m worried about you,” said Naomi.

“I’ll be fine, just need a moment’s rest.”

“I’m with you, Jed. All the way.” She squeezed his hand.

“You know the risk, being here?”

“Of course I do. I still want to be close, I believe in you.”

“I’m going to crack this.” He stood up and walked back to his equipment.

After another two hours he had finalised the cell structure. Such was the complexity of the undertaking he was beset by doubts. It only needed the smallest thing to be incorrect, a chemical, a piece of genetic coding, for the whole thing to fail. It was getting late into the evening, but he pressed on to find the truth.

Helena and Ken had not reached the same stage, but he called them over. Others gathered around, none of the team had finished for the evening, the work was too important.

“Ladies and gentlemen,” Jed said with mock formality, “the moment of truth. Naomi, please do the honours.”

Naomi entered the BSL4 section of the lab and set up the monitoring equipment. She then introduced Helena’s modified cells into the culture containing the virus.

Everyone’s attention was focussed on the screen as the two sets of cells mingled. The virus cells became animated and moved towards the T-cells. Once again, the T-cells attacked the virus and destroyed it. The observers eagerly awaited the next, hoped for stage.

After five minutes, nothing had happened. The un-attacked virus cells multiplied and threatened to overwhelm the yet static numbers of T-cells.

Jed’s doubts increased.

“It’s not working,” said Frank.

“It must,” said Jed. “Give it time.”

“Something should have happened by now,” said Naomi. “Perhaps we got the signaling enzyme wrong.”

“No!” said Jed. “I double checked several times.”

Suddenly a cell divided.

Everyone stiffened.

“Yes!” Frank exclaimed.

Another dived, then another. The momentum built, all the T-cells in proximity to the virus began replicating then neutralising it.

“It’s working!” said Jed. “Prepare a dose for me to take.”

“Hang on!” said Frank. “It’s far too soon. We don’t know the end outcome of the confrontation, what will happen to all those T-cells, and if they will kill all the virus cells.”

“They’re replicating as planned,” said Jed. “Once the virus is eliminated, the excess T-cells will be absorbed by the body, they will act as normal. I must trial it, now.”

Frank considered for a minute.

“I can take no responsibility for your health if this goes wrong.”

Jed looked directly into his eyes. “If you want me to sign something I will. I have no intention of holding you responsible. This is my decision, my choice. Apart from the thousands already suffering, I have maybe five days if I’m lucky, then I suffer the same fate. Perhaps others among you too, now I’m infected. This our best shot, we have nothing else.”

“Very well, Jed. I can’t stop you under the circumstances. Helena, make ready an intravenous injection.”

“Right away,” she replied.

“You are all tired. Once Jed has taken the serum there is nothing to do other than wait until morning and check his state. I suggest we all get some rest.”

Everyone approached Jed and shook his hand or hugged him, wishing him luck.

Helena walked up to him with a syringe. "Are you ready for this?"

"I am. Go for it."

Helena rubbed his upper arm with medical alcohol. Jed winced as the needle penetrated his skin, he never did like injections, but the discomfort was over in a moment.

"All done. Get some sleep Jed and I'll see you in the morning for a checkup."

"Come on," said Naomi. "You're not sleeping alone tonight."

Jed awoke at dawn in Naomi's arms. He tried to sense his body, did he feel better? He wasn't sure. He gently removed Naomi's arm from his chest to avoid disturbing her then got up. He went to the mirror and examined his face. His eyes appeared normal as did the colour of his skin.

He picked up a thermometer and inserted it in his mouth. Withdrawing it a minute later, he found his temperature to be normal, a little on the high side but not outside the correct range. It looked promising but he knew only a full blood test would tell for certain.

He walked around and left the tent. There was no aching in his muscles or bones. It must have worked.

It was only six in the morning, but he had to know and went to Helena's tent. She was still asleep and feeling a little guilty at his selfishness he roused her.

"What is it, Jed?" she said through half-closed eyes.

"I want you to do the test, I need to know. I'm sorry for waking you at this time."

"It's okay, I'm usually an early riser. Not quite this early, but never mind. I want to know anyway."

Jed remained by her bedside thinking.

"Jed, I have nothing on under here, would you excuse me?" There was a smile on her face.

"Of course, stupid of me. I'll see you in the lab."

He waited in trepidation for what seemed an age but could only have been ten minutes before Helena appeared.

"Okay, Jed. Lie down on the examination couch while I take some blood."

Another needle, Jed thought. He took a deep breath and closed his eyes. There was the familiar rub to his arm followed by the sting.

Helena attached a canula and led the tube to a sample bottle.

"Five minutes and I'll have enough. Fancy a coffee?"

"Sure," said Jed.

Helena returned with two cups and sat beside him.

“Naomi seems to have complete faith in you.”

“We’ve worked together for a long time.”

“I guess it’s well founded then.”

“I’ve had many successes in my career.”

“So I’ve read. I hope this is one. There’s enough of a sample now, I’ll unplug you and do the tests. Are you feeling okay?”

“Yes, fine.”

“Good, just stay where you are.”

Another agonising wait followed in the lead up to the moment of truth. Soon others would be up, and he prayed he would have good news to tell them. He rose from the couch and walked to the door, suddenly having a profound sense of his own mortality, should the cure have failed.

A few more minutes passed before a voice snapped him out of his thoughts.

“Jed?”

It was Helena.

He walked back to the lab to find her smiling.

“You’re clear. The virus count is minimal compared to yesterday, and I see no side effects, nor an excess of T-cells.”

He couldn’t help walking up and wrapping his arms around her.

“Don’t get too confident. It’s still too early to be sure, I need to do more tests later.”

The next set of tests showed Jed to be completely clear of the virus and with no ill effects from the antidote. Word spread quickly and all came out to congratulate him.

The cure soon led to a vaccine. This was more difficult to verify in the short term, but the entire team volunteered to test it before they introduced it to the village.

Within days the spread in the village had ceased and those infected were recovering. Stocks of both the vaccine and antidote were running low. They had been produced locally at the lab having taken blood from all the scientists. Ore could be made but not in the quantities needed,

“How confident are we to go public and commence large scale production?” said Frank.

Ken was the first to speak. “After all we’ve witnessed, I would say confidence is high. We must do it.”

“I agree said Jed.”

“Does anyone have the slightest doubt?”

There were no objections.

“Very well, I’ll contact the WHO and the world medical council with all our research and tell them to get production underway immediately. Thank you all.”

That night they held a party and Jed invited Hanameel. He now treated Jed almost like a God, knowing that it was he who was most responsible for saving the village. There was no demand from Jed this time for Hanameel to go easy on the drink and he went round for round with Jed on Burgundy. It was clear he was unused to unrestrained drinking but was good natured and became the centre of attention with his retelling of western jokes with an African twist until he eventually passed out. Naomi found a bed for him and with Jed carried him to it.

“He’ll have a sore head in the morning,” she said.

“Ah well, he enjoyed himself.”

Jed, also, had a little too much but made it to the end before crashing out with Naomi and then falling off the bed in the middle of the night.

Within two days, bulk supplies of vaccine and antidote were delivered to the base and to the six other frontline medical centres scattered around the areas of infection. It would be six months until the outbreak was contained and began to ebb, But for now, those getting sick were fewer and they could be cured.

After three weeks, during which no new cases became apparent, locally or further afield, the team considered their work complete.

Jed was hailed as a hero, first in the local press, then nationally, and finally internationally. He finally said goodbye to the other scientists as they went their separate ways.

"What's your next project Jed?" Frank asked.

"Oh, I'm sure I'll find something."

None of them were yet aware of the developments in Egypt.

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## **Book 2 Preview**

### **The Cull**

#### **Chapter 1**

**Atlanta, Georgia**  
**May 10th, 2032**

A deep burgundy 1950 Indian Chief Black Hawk motorcycle thundered down Houston Mill Road. Its gleaming paintwork and polished chrome sparkled in the morning sun. The rider wore an old open-face helmet, his smile beamed through a full beard and the city streets reflected in the flawless lenses of his Rayban aviator sunglasses.

As he stopped at the junction before turning right onto Clifton Road, onlookers stood and stared, some in delight at this antique motorcycle and its rider who looked equally dated, and others who saw the remarkable incongruity of this machine on a modern city street teeming with electric-powered vehicles.

Jed Stone didn't care. He was a man unto himself, a square peg in a round hole and proud of it - a non-conformer in a world where he felt there was so little individuality. He pulled away, feeling the twin-cylinder 80 cubic inch engine thumping between his legs, the torque pulling at his wrists and revelling in the pleasure of the satisfying deep growl from the twin exhausts.

A quarter-mile further he turned into the road that led to the offices and research facilities of the Atlanta branch of the Centers for Disease Control. The security guard waved him through without asking for his ID card. Jed was pleased they hadn't forgotten him after six months of field operations in Angola. There he successfully helped to combat the latest outbreak of Pousette's Virus, a virulent strain with a high mortality rate.

Jed dismounted in his personal parking space near to the entrance of the offices and lab of the International Emerging Infectious Disease Program. He removed the Army surplus helmet and unzipped his brown leather flying jacket with its sheepskin collar. It was good to be back. He glanced around the car park recognising the rides of his work colleagues and friends, noting how Johnny Leonardo had acquired a new vehicle in his absence; a bright red American Motors Eagle VX electro-turbine sports car. Impressed, he walked over in his heavy boots, their tops covered by his patched jeans, to take a cursory look. After satisfying his curiosity, he turned back and entered the building with his customary swagger that oozed self-confidence and attracted women like flies to honey.

"Jed! You're home! Welcome back," the receptionist, Melanie said with a broad smile. "Any chance of a kiss?"

"Any excuse," Jed purred. He approached and gently kissed her cheek. Melanie sighed.

"Are there any messages for me?" he said.

"No, but there are a few packages for you. I sent them through to your office first thing, it should keep you busy for the morning. And out of trouble." Her eyes twinkled. "How was Angola?"

"Tough, but it's all under control for the time being."

"Thanks to you, no doubt?"

"Oh, I played a part I guess."

Jed knew he was good at what he did, the best maybe, but he didn't sing about it. He did what he had to do for the purest of intentions, the benefit of the public. He performed to the best of his abilities, which were formidable.

"Right, I'd better get changed and pick the ball up again. Catch you later Melanie."

"Oh, hang on Jed, one message came in for you this morning. From a Doctor Petrakis in Cairo."

"That's a name I haven't heard for a few years. What did he say?"

"There are problems in Egypt, he wants some advice, I think. Here are his contact details."

"Thanks, I'll call him later."

Jed walked the corridors to his office acknowledging the greetings from everyone he passed, but he didn't stop. On arrival he opened his door, noting the freshly polished brass plate engraved with his name and 'Chief Scientific Officer and Director, IEIDP', then threw off his jacket and made coffee. The pile of packages dampened his initial high spirits, but there could be nothing too important, and he'd kept up with his emails for the duration at least.

While his coffee cooled he changed out of his motorcycle outfit and donned a casual suit resembling that of an archetypal 1960s liberal university professor, complete with leather elbow patches, a pale checked shirt, and a muted red bow tie; his trademark appearance at work. He checked himself in the mirror, combed back his shoulder-length greying hair, tidied up his beard and noticed for the first time how brown his face was after the weeks in Angola.

He sat down and began sorting his desk. As he took the first tentative sip of the coffee, there was a knock on the door and Gordon Hannay entered. Dr Hannay was one of Jed's research scientists working primarily out of the unit's laboratory. Anybody was free to come in; the knock was purely an attempt at courtesy.

"Hey, Gordy! Good to see you again," said Jed.

"You too Jed. Looks like you had a good trip, I read your reports."

"Yeah, I think we've got it nailed this time unless it mutates. The antiviral drug I developed seems to be effective."

"Effective is the wrong word Jed, it's almost a miracle drug. They've been battling this for five years, then you get a hold of it and not only is there an effective vaccine but also a cure for those with the disease."

"I'm just glad it works, Gordy. I saw a lot of cases out there; it does nasty things to people. You really don't want to know."

"I won't ask. Say, have you heard anything about what's happening in Egypt?"

"No, why?" said Jed.

"There's not much to go on at the moment, little snippets. A British biohazard team, military, flew out. Two people are very sick; geologists who were working on something they found before the military team went out. There's a large Egyptian military presence in the area too, seems they're forming an exclusion zone around whatever it is. A friend of mine works for the CIA, he can't tell me much, but there have been a lot of panicky noises coming

from the Egyptian government, apparently connected to this. I thought you might be interested."

"Mm," said Jed, rubbing his beard. "A bit of intrigue, I like that. Where exactly in Egypt?"

"A few clicks south of the Giza plateau."

"I'll see what I can find out, thanks, Gordy."

"No problem, see you later Jed."

Jed pushed his mail aside, he'd scanned it and there was nothing that couldn't wait. After being teased by the limited information about Egypt, he was keen to call Dr Petrakis. There must be a connection. He dialled the number given to him.

"Barak?"

"Yes, speaking," came the heavily accented reply.

"It's your old friend Jed Stone, hi!"

"Jed, so glad you returned my call."

After initial pleasantries and catching up on each other's lives over the past few years, Barak told Jed all about the events in Cairo to date. By the end of the call, Jed was fascinated and his inquisitive nature took over, he had to know more. He fired up his computer and logged on to the internet to begin the search for information. Despite what appeared to be a heavy censoring of information, by lunchtime he had built up a comprehensive picture of the limited facts, though little more than Barak had told him; there was something of interest here. He punched in a number on his phone.

"Johnny, it's Jed."

"Ah, Jed, you're back at last, what can I do for you?"

"First off, a nice motor you've got, I had a quick look on my way in, cool."

"Sure is Jed, she's a beautiful drive. I'll take you for a spin; go out for a bite of lunch if you like?"

"Sure! We'll do that. In the meantime, can you get me close up aerial shots over Egypt from any of our satellites?"

"Let me check."

Jed heard Johnny punching away at his keyboard. A minute later he came back to the phone.

"You're in luck Jed, they'll be a pass at about 14.30. Any particular area?"

"Yeah, just south of the Great Pyramid, say from five miles and up to Cairo. A range of magnifications but certainly some close-ups."

"How close? We can get close enough to read a book."

"Say close enough appreciate the curves of a woman's body."

Johnny laughed. "You got it, Jed. Say, we'll do lunch and get back so you can see the results come in live."

"Sounds like a plan. 12.30 for a spin in the new Leonardo-mobile?"

"See you in the car park."

With an hour to spare before lunch with Johnny, he made his way to the lab to speak to his team which comprised four scientists and two lab technicians. They gave him a warm welcome, especially Doctor Naomi Foster, a specialist in nanotechnology and biochemistry. She was the only female member of his team and over the past year they had shared several intimate liaisons, including in Angola; though as yet neither had formally stated there was any relationship beyond their work. Both were fiercely independent and found their desires both thrilling and scary.

Jed took a keen and personal interest in all their work, even that of the lab cleaner, and

often gave friendly advice which they took with good grace. University education was nothing compared to what they learnt from him.

"How's the research going on the latest malaria drug, Sam?"

"Nearly there, but some data doesn't fit. Perhaps you could look sometime?"

"I could take a quick look now, though I have little time."

With a changing climate, malaria had hit the southern US states and threatened to progress further north. Sam led him to his workstation and brought up the data.

"This has been bugging me for weeks, something I'm missing – look, here."

Jed studied the figures, "I see what you mean. Email me a copy and I'll see if I can help."

Dr Sam Hathaway was a geneticist with a PhD from Harvard and years of experience. The problem was in his field of expertise, not Jed's, who was a biochemist. But he had known Jed long enough to appreciate his versatile mind and unrivalled problem-solving ability.

"I'd be grateful if you could shed some light on it, give me a pointer at least, Jed."

"There's something else I need to look at this afternoon, but I'll get on to it as soon as I'm free."

Dr Tom Roberts was Jed's virus development and mutation specialist

"Tom, great to see you, how's progress on the Lassa virus mutation doing?"

"Very well, I've found a means to make it retrograde. It should be viable within a week."

"Good news," he gave him a friendly pat on the shoulder.

He then caught Naomi's eye. She was looking at him with a mixture of awe, respect and . . . was that desire he saw? It had been a few weeks since they'd been together. Perhaps later?

"Well guys, I've got an appointment to keep, a blast in Johnny's new car. I'll catch up with you later."

As he walked out of the lab, Naomi was close behind; a tingle went down his spine. Once out of earshot from the others, he turned to her.

"Just wondering Naomi, do you fancy dinner tonight?"

"Yes, I'd like that Jed," she said, pressing intimately into his personal space.

"My place, at 8 o'clock?"

"I'll be there," she said, with smiling eyes.

He felt the urge to kiss her but withheld. He didn't mix work and relationships so remained business like, but caught the slightest hint of a frown on her face. If he played it cool now, her longing might be more intense tonight.

## Chapter 2

### **Lenhien Castle Germany**

High in the Blaubeerge Mountains of Germany, Lenhien Castle stood at the edge of a deep ravine, an imposing Gothic edifice. Surrounded by woodland, it was served by a two-kilometre single track road which branched off from the main highway. It was as remote as it was beautiful. Built in the 11th century, it had withstood the ravages of time. Owners had lavished great care upon it through the centuries, but its longevity was, in the main, because of the enduring strength of its massively engineered Teutonic structure.

The Castle's sheer walls, built from pink granite imported from Brittany, shone in the afternoon sun. Their tops, adorned with castellated towers and ornate spires, pierced the sky. Inside was accommodation for the master and his family, a dozen servants, and up to 30 guests in luxuriously appointed bedrooms. Fine art hung from all the walls, and antiques

stood in every corner, along walls, or suspended from ceilings. Rumours among the local population spoke of dungeons or secret laboratories beneath the main living spaces.

For the past 300 years, it had been in the ownership of the Astor family. It had received few visitors in recent years, though when it did, their numbers filled the castle. Noises and light emanated from the building. This led to further imaginative speculation concerning 'strange goings-on' at Lenhien Castle.

The Castle was gearing up now for one such visitation. Michael Astor had taken residence for the summer as a change from his many other homes. He strode between parapets and stopped occasionally to lean over the battlements and gaze at the forest below, deep in thought. Events were taking place, ahead of time, and unplanned. He had arranged a meeting at short notice to deal with the problem.

There was to be a gathering of The Brethren. Thirteen of the most powerful and richest men in the world; not politicians or business leaders, but those pulled the strings behind the scenes, the ones through which true power emanated.

These were the Ancient Ones. They were the unseen faces behind some of the largest multinational corporations in the world, built up over generations with help from occult powers to amass most of the Earth's wealth. All with one goal in mind.

Under normal circumstances, teleconferencing would suffice, but this was an emergency and required an immediate and direct meeting of minds. They had chosen the Castle for many reasons, the most important being its location at the intersection of powerful ley lines which would amplify the efficacy of their task.

As the afternoon sun began to lower and draw a blanket of shadow across the forest, Michael saw the first black limousine approaching along the service road. A few minutes later another followed. One member flew in by helicopter, landing on the castle roof which concealed a helipad. Already dressed in a dinner jacket, Michael went down to the reception hall ready to greet his brothers, he could feel the energy level in the surroundings increasing by the minute.

By sunset, all were together in the Great Hall. Acquaintances were remade, though they were never truly apart. They had walked many centuries together.

Soon, dinner was served.

Alcohol was absent from the meal, they had important work to attend to tonight; but afterwards, all were looking forward to an orgy of sensual pleasures, drinking being only a part of it. Michael had planned to fulfil all their desires, as he would expect if he were to be one of their guests. They ate of the finest meats, vegetables, and fruits, grown in the castle grounds and prepared with culinary skill by Michael's chef. When they had consumed the last dish and all were satisfied, Michael rose to address the gathering.

"Gentlemen, brothers, Co-creators of our glorious future, I trust you have enjoyed the hospitality offered so far tonight?"

Appreciative nods and gestures from his audience told him they had.

"I suggest we adjourn to the inner sanctum and begin the work we have come together to accomplish. When that is complete I have laid on entertainment for your pleasure later tonight."

By the devilish smiles he witnessed he knew they understood his meaning.