## Specimens

David Court was quite cheerful as he reached for the doorknob of Dr. Flannery's office. David wasn't fond of his boss and was in fact a little scared of him, but this was a good day and Dr. Flannery had implied that big opportunities were in store. Flannery had often told David to call him 'Jacob' but every time Dave actually had, Flannery had given him the briefest, flattest of scowls.

"David, good," Flannery said, drumming his fingers as David entered. He abruptly stood. Any time Dr. Flannery moved, it was abrupt. "Take this."

"Take...?"

"This, take this, take this pill," Flannery said impatiently, picking up a small plastic tray with a green-white tablet.

"What is it?"

"It's Ativan. Put it under your tongue and let it dissolve." Flannery stared.

"Ativan? I don't..."

"Look David, time is of the essence."

"Why would I...?"

"Denise is a prostitute, David."

Dave's face instantly blanched. "Denise is...? My new secretary, Denise...?"

"She's an escort. Her real name's Crystal. We flew her in from Nevada, and I hope that whatever she did to you five minutes ago was suitably mind-blowing because it's on the company dime and, more importantly, on the clock."

David blinked. "Well, that explains why she couldn't use Excel," he finally muttered.

Flannery exploded in laugher, hard enough to make David flinch. "Good one. Now are you going to take the pill or is this meeting going to come to an abrupt and unpleasant end?"

David considered. He didn't like Flannery, but if you looked at the broad strokes, the doctor gave every indication of liking him. Flannery had hired him, had transferred him from the drudgery of the pharma division to the company's lavishly funded bio-research arm, and had promoted him until he worked directly for Flannery's open-ended exploratory biota harvest department. The doctor was definitely odd, but he looked out for his pets. He was also notorious for not offering second chances. David hadn't worked anywhere else since college, and the market was tough. He put the pill under his tongue.

"Good, good," Flannery said, taking another look at his watch. "Walk with me. The lab's on the far side of the lot, and by the time we get there it should be in full effect."

"Are we going to... the *black* lab?" David asked, his tongue slightly awkward around the grainy, dissolving pills. Their flavor was not unpleasant.

"What?" Flannery sounded annoyed. "A black lab is a *dog*, David. We're going to the confidential exotic biota lab." He took David's arm and led him down the hallway. He swiveled his grey-coiffed head right and left and muttered in a low voice as they moved.

"Today starts the most important phase of your life in research," the doctor said. "Needless to say, everything you see at the locked site, everything you hear about our work there, is proprietary. You breathe one word it to your wife, your lawyer, let alone Novartis or Abbott and... well, the lawsuit would just be for starters."

"You can trust me," Dave said, then winced at sudden daylight as they left the building and started across the parking lot.

The confidential exotic biota lab wasn't labeled. It was a small, poured-cement block with no windows, one door, cameras left on its corners for obvious effect, and a twenty-foot fence topped with concertina wire.

"Here's your access badge," Flannery said, handing over a laminated plastic card with a magnetic strip and David's picture done as a hologram. "You can check it in and out with Marcy at security. It never leaves the grounds. Neither does your key to the front door. Your salary doubled as soon as you took that pill, by the way. Let's stop here."

David was panting slightly as they paused outside the fence. A guard in a shack stared with the impassivity of a Marine watching an embassy.

"Okay, we're... past the absorption point, would you like something to drink?"

"Um..."

"Here." Flannery proffered a flask from an inside pocket.

"What ...?"

"It's strong. You'll need it."

David smelled the acrid scent of raw alcohol and looked up at his boss again. How had he never noticed how pale Flannery was in the sunlight, or seen the slight sheen on his skin, like sweat or oil? "No thanks."

Flannery sighed. "Suit yourself." He showed his card to the guard who opened the gate once David did the same. As they walked in, David swiveled his head, realizing there was a compact and businesslike machinegun hanging from a strap at the guard's side as he sat on his little stool in his little booth, watching a gate that, to David's knowledge, was hardly ever opened.

"Look in the holes," Flannery commanded. They were facing an unmarked steel door with two black, inset circles at head-height. David recognized them. He'd had his retinal print taken the week previous, amid oblique hints from Flannery about an exciting new "secure project."

Seeing Flannery's glance at his watch again, David bent a little and stared.

"Welcome to Project H," Flannery said as the door slid sideways into a pocket. When it closed, he seemed to relax, just a tiny bit.

"Right. David, what if I told you that we have acquired biology's philosopher's stone? That we have a substance-driven process that can de-construct, analyze and reformat DNA with a speed and, and *insight* beyond the dreams of any biologist publishing in the journals?"

"I... don't know," David replied. The room was lit by bland, efficient fluorescents. There was a display cabinet straight in front of him, plastic-walled and opaque.

"I'd half expect Ashton Kucher to come out and tell me I've been punked," David said.

"I don't know who that is," Flannery said, stepping to the upright case. "I can only assure you that this is completely serious."

Flannery touched a switch, the plastic turned clear, and David's knees sagged.

"Easy," Flannery said, catching him. "Remain calm, David. It's dead. It can't hurt you."

Blinking and swallowing back puke, David could see it was dead. It had a giant hole through its chest, a blackened star set into grainy, frosting-white fat. The edges of the wound were leathery, greygreen, preserved and peeled back like a shriveled fruit rind.

"What... what...?" David stammered.

It was man-shaped, or shaped like a mockery of man. Thick legs dangled off a clear plastic perch, one twisted sideways, each terminating in curved claws and spread-wide flippers, cast in celery-colored skin with a rough, knobby, saurian texture. Its arms were the same, mannish but with wrong proportions and ending in those hideous, nail-tipped, catcher's mitt hands. It had no nipples, but the hairless penis

was disturbingly human. The same couldn't be said of its face. Its bullet-shaped head rose directly from the torso, gills like wounds creasing the rolls of fat where a human would have double chins. The eyes, distended and black, were the size of doorknobs, and its mouth was a vertical gash showing row after row of curved, rending teeth.

"I know," Dr. Flannery said, in the gentlest tone David had ever heard him use. "We think it's some kind of atavistic instinct. It's not objectively that horrid... could be a special effect from a monster movie. But you recognize it, don't you? We all do. We all know it's... bad."

"Where did it come from?" David gasped.

"Japan. You want that drink now?" Flannery touched the switch again, hiding the specimen behind merciful darkness.

"Yes please."

"Have a seat."

They were in a room that seemed to occupy most of the tiny building. A receding row of blank glass cases of different sizes and shapes led towards the far end, which had a large locked steel box and a white door with the familiar man/woman outlines of an office bathroom. The side walls were lined with shelves supporting microscopes and keyboards, flatscreens and autoclaves sparsely scattered on them, peach-colored Embody chairs casually half-turned underneath. Flannery helped David into one before pulling over a second.

"Next time you see it, or one of the others, it won't be so bad."

"There are others?" Dave asked.

"We got three."

The thought that such an abomination could be anything other than unique seemed to strike David mute with horror. He took a long drink from the flask.

"You never met Ambrose Dick, did you David? Good man, smart. High strung though."

"Before my time, Dr. Flannery," David said, voice faint.

"He passed out the first time he saw the specimens. He checked them in for us once we acquired them. Couldn't face them after that without a good stiff drink." He shook his head. "By the time we found out, it was too late. And he was right. Alcohol dulls the reflexes, holds down the panic response."

"The pill?"

"Same thing, powerful anti-anxiety drug." Flannery chuckled. "Dr. Marchal was a sex addict, that's how we figured out the benefits of postcoital endorphins."

"I don't know Dr. Marchal, either."

"No, he shot himself," Flannery said. He looked down at his hands. "You can see why we're so careful."

"He killed himself over...?" David glanced at the now-darkened display.

"Oh yes," Flannery said, voice grave. "His note didn't leave much doubt about that. Pretty disjointed but... yes."

"What is it? Where did it come from, you said... Japan?"

"We got it from Japan," Flannery said. "A... business entity there scooped up the initial batch in 2002. We'd done some research with the company... covert joint projects between Japan and the US government, hush-hush germ warfare countermeasure and containment systems. The corporation got burned pretty bad during the Resona Bank debacle, so to ensure solvency they sold off valuable proprietary..." he shrugged. "Materials. Specimens. Those."

"Where did they get them?"

"My contact was a lab assistant to one of their hands-on research Vice Presidents." Flannery's smile was wintry. "Very much their parallel to me, actually. This researcher started with containment in 2002. That was right after his boss hired a group of Australian mercenaries to lure them into a trap and mow them down. God knows where it happened," he said, shaking his head lightly. "The boss was very secretive, and he... vanished, I suppose one must say, in 2004. A lot of documents got lost. But by that point, we'd already had them for close to a year."

"We?" David said. "Who's we?"

"Me, Marchal and Dick, at first. With replacement personnel, we're up to a seven man team. You make eight." For just a moment, his gaze drifted off and became distant. "The others are all bright, though... of limited vision. Sometimes."

"What happened to Dick?"

"Died in a car crash," Flannery said promptly, eyes snapping back to David.

David held his stare until the doctor sighed.

"A single vehicle crash," Flannery admitted. "High speed into a tree. Probably suicide." "Jesus."

"Well David, you're now apprised of the risks, but you're fortunate to come in when we know the full dimensions of the issues," Flannery said briskly. "Having seen the bad news, let me tell you about the good." He leaned in. "That thing in the case used to be human."

"No," David whispered, but the gorge rising again in his throat told him that it was true. He tried to remember Denise's flawless breasts and bawdy smirk, but any memory of pleasure or intimacy seemed very far from the stark cold lab and the grotesque implications of what Flannery was telling him.

"That monster has human DNA, at least seventy percent. But the other thirty, ah... it's *incalculably advanced*, David." He drummed his fingers. "The genetic material... we call it 'H-plasm'... it comes into contact with regular DNA and begins reconstructing it, breaking it apart and analyzing it and reorganizing it into a new form optimized for an entirely different environment. Gills, David! A layer of subcutaneous insulating fat that can protect it from the chill and pressure of the ocean's depths! It can reassemble a mature human body into an entirely different *species*, implementing changes that make end-stage cancer look..." The doctor trailed off, no longer meeting David's gaze, his eyes up and to the left as he groped for the right words.

"Are there any other shocks I should see, while I'm still drunk, stoned and mellow?" David asked. Flannery laughed, again making David wince. "I suppose I should show you Dick's folly. That's about the worst. After the initial shock, anyhow." He glanced at the blanked glass. "Honestly, I'm almost used to it."

Where the first display case was upright, the second was oblong, roughly the size and shape of a coffee table. Inside was a series of objects that did not prompt the deep, instinctive revulsion David had felt towards the first entity. These looked like large beetles pinned to a board in a museum, gelid shiny carapaces under clear lucite.

"What are they?" David asked.

They were segmented, bodies in three parts, resembling trilobites in the way their stiff outer shells overlapped. They were roughly the size of a human hand. Each element had a shiny black patch on the top. The first and final components had limbs, four in total, ending in pointed clear tips like fingernails. A fanned tail projected from what David assumed was the rear, and at the front there was a loop on a stalk, making him think of a bottle opener cast in grey-pink cartilage.

"They used to be a woman named Anastasia Putrencko," Flannery said, his voice low and reverent. "What?!?"

"Oh yes. We'd done months of intensive animal testing and thought..." He chuckled. "We'd isolated *one segment* of the H-plasm code, just three percent of the total array! In rat and pig tests, we'd been able to turn certain blood vessel tissues *back into* stem cells. Think about that for a moment. If we could reprogram bone back to stem and then shut the process down, the new stem cells could..."

"...convert themselves into anything the body needs," David said slowly. "An end to osteoperosis."

"Putrencko had macular degeneration, that's what we started with. But it could just as easily treat Alzheimer's. Or *tooth decay*. Are you starting to see the possibilities? H-plasm is the *future*, distilled into a single package, if we're just smart enough to figure out how its tools work."

"But..."

"Think big picture, David," Dr. Flannery continued. "Imagine that you've been using a point-and-click computer interface and that's all you've ever known. You might think you had a fair grasp of your desktop PC, being able to open files, launch applications, change the desktop image and surf the internet... but one day, you get a *keyboard*. You can suddenly start manipulating the stuff *under* the layers you knew. You can hack the code, make fundamental changes to the operating system and create anew from *nothing*. That's the difference between H-plasm and the former state of the art in molecular biology."

"How long was it after Dick treated this woman that he killed himself?"

Flannery took a deep breath and blew it out slowly. He was visibly composing himself.

"We'd done tests on isolated human cell samples. We did that before the animal labs, of course we did. It worked *fine*. We thought we'd found the H-plasm auguinicel that reverted ocular blood cells back to stem, and we *thought* we had a trigger to deactivate it after the tissue density dropped below a certain level, and we *thought* the dosage was low enough..."

David sighed. "The theory was, the excess blood vessels would break down, revert to stem, and then reform as macular cells?"

Flannery nodded. "We fast-tracked a research protocol in Russia and Anastasia Putrencko was a 79-year-old woman who wasn't going to get vision treatment any other way." Then the doctor did something David would never have predicted: He shuddered. "I was there, David. I saw her body change. Luckily she died within minutes."

"The... the plasm, it must have gone through her veins?"

"The conversion began behind the eyes, and it hit brain tissue pretty fast," Flannery said. "Once her heart stopped, the change spread downward through anything soft—face, neck, heart, lungs and down into the muscles. Everything but bone, hair, nails and connective tissue."

"Why these?" David whispered, turning back to the display.

"They may be an earlier ancestor of the modern H subject, the same way you had flippers when you were an embryo, or the way you retain obsolete gill-manipulation reflexes in the form of hiccups. The Anastasids—that's their official name in the documents—are quite primitive. Those shiny patches are rudimentary light detection cells, so they don't even have proper eyes. The limbs are pretty interesting... stiff exoskeletal base and tip, but something that's all encased muscle between, like a tentacle. Nothing like it in known, spiral-DNA earth biology."

"What does their DNA look like?" David kept asking questions, hoping to stumble across one that would damp down the empty horror coursing through his mind.

"A series of what we call auginicels," Flannery said. "Instead of a spiral, they're more a series of radiating pointed tips, like an augur. Hence the name. The H-plasm we have is partially decayed, but we're making progress categorizing its configurations. We think we're about a third done." He shook his head. "It makes cracking the human genome look like a game of Hangman."

David wanted to ask if any of the 'Anastasids' had been permitted to live. He didn't. He just turned back to the chair and sat again. He found himself feeling very tired.

"What else have you done?" he asked, staring off at nothing.

"Kept a dragonfly alive for the last three years."

"Excuse me?"

"Dragonflies usually spend most of their lives in larval form. Once they mature, they senesce and die after four months." Flannery leaned in. "Diggins —you'll like her, she's brilliant, came over from geriatric research—had already extended some newt and fly lifespans by a factor of twenty just by removing the DNA code that told them to shut down, but an aguinacel treatment can identify tissues that are beginning to degrade from cellular pollution and, and *refurbish* them! Think about it David: A yearly treatment that not only halts aging, it reverses cell damage."

"If you can keep it from reformatting your cells into insects."

"The Anastasids are closer to crustaceans," Flannery said coolly. "But yes, that's a *concern*, David. That's why we're playing the next human test considerably closer to the vest."

Something in the doctor's tone made David look up sharply. "More human tests? Seriously?"

"We've learned a great deal since the Russian series," Flannery said pedantically, for all the world as if David were being unreasonable and truculent. "But I'm going to take your concerns as an excellent sign, since you're going to be central to the next run."

"I'm not sure I... feel right about... about..."

Flannery narrowed his eyes. "You're not thinking you can back out *now*, are you David? It's far too late for that."

David swallowed once, hard. His mouth was suddenly dry.

"The pill," he said. "The pill you insisted I take. Oh God. It's in me, isn't it? You put that stuff, that H-plasm, it's in me now, isn't it?"

Flannery stared, than burst once more into laughter.

"You? You honestly thought I'd...? Oh David, that's hilarious!" He continued to chuckle, actually raising a hand just to lazily slap it on his thigh. "No, I just meant there was a hidden camera in your office! You? The alpha subject for the immortality and accelerated cognition study? I think not David. I think not."

With a gesture, Dr. Flannery led David past three more mercifully darkened displays to the locked steel box at the rear. Hearing it hum, David identified it as a fridge or an upright freezer. The doctor turned a brass key in a sturdy keyhole and peered into an optical port, after which it unlatched with a loud click.

"This experiment is the largest, grandest single step in the development of humankind. This is where we stop being passive riders on our genomic destiny and begin *steering it*. This is *history*. Its subject will be more famous than Yuri Gagarin, Neil Armstrong and Henrietta Lacks combined. You think I'd share that?"

As he turned back, holding a syringe, Dr. Flannery said "Your job is to monitor *me*, starting now. Are you ready to make history, David?"

Lit from below by the fridge light, his smile was absolutely ghastly.