What Could Possibly Go Wrong?

by Jonathan Edward Feinstein

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"Doctor Red Willow, when did you first come up with the concept of a regenabot?" the biographer asked.

"The concept was not my own, Reynaud," Linda Red Willow replied honestly. She brushed a stray lock of her long black hair out of her face. Thanks to the regen technology that had been her life's work, at one-hundred-and-thirty-three her apparent age was a mere fraction of her chronological age. Her most recent birthday cake should have been classified as an incendiary device. She was not exactly pretty, but experience had brought her grace and ageless beauty. "It was something we were already working on back in 2094 when I joined the project as a junior assistant."

"But you're called the inventor of the regenabot," Reynaud pointed out. "You were the final recipient of the Nobel Award in Medicine."

"I invented them," she agreed, "or rather I was the head of the team that invented the first true regenabots. The leader of a research team gets the credit, but over the years there were hundreds of us who worked on them. If you have a transcript of my Nobel speech you might note I gave credit where it was deserved."

"Of course," Reynaud nodded. He scribbled notes feverishly on a tablet. The tablet was in stealth mode, so Linda could not read what he wrote, but she was certain he was reminding himself to look up that speech. Privately, she wondered if it had survived. It probably had. Stockholm was half a world away from Tokyo.

Linda looked out the small window and back toward Earth. It was almost entirely white with clouds. More than just water had been sent upward when the meteorites crashed. Tons of pulverized rock went with it, and they were soon joined by the gasses and ash from dozens of volcanoes. Global warming was no longer a problem. In a century or less, a long-overdue ice age would reclaim the world. She thought back to the days before the project and then realized Reynaud was speaking to her. "I'm sorry?"

"Were you always interested in medicine, Doctor?" he repeated the question, "or was it robotics?"

"Neither, actually," Linda replied, secretly amused the question reflected her musings. "I

was a housewife with a degree in literature and happy. So very happy. But then World War IV began and my husband was drafted. I got a job as an assistant at the University of Calgary. Doctor Helmsford was researching beam weapons. He was one of the developers of the fusion beam."

"Fusion beam," Reynaud echoed. "How did you qualify to work in a lab like that with a lit. degree? How did you get into the Regenabot Project?"

"I qualified by being alive and healthy and being intelligent enough to be able to follow instructions," Linda smiled. "Remember this was during the last World War. Most of the graduate students had been drafted. Anyone with a pulse could get a job, and anyone who was literate could get one at the universities.

"My husband died in that war," she went on. "It was two weeks before the armistice. Johnny, my son, died a month later when a classmate brought a gun to school and started shooting." The biographer stared at her wordlessly, not knowing what to say. She had not told anyone this in decades. She went on, "He did not have to die. The boy with the gun was trying to kill a girl in their class. Johnny stopped him." She paused to wipe away some tears. After a long time, with a tear still on her cheek, she continued, "I could have kept working for Doctor Helmsford – he asked me to, but I got word of a new project dedicated to the eradication of death. So I applied and with my experience as Doctor Helmsford's assistant and his recommendation, I was accepted as a junior assistant researcher in the Regenabot Project.

"It meant moving," she continued, "several times over the next few years, but I had no living family left. So I packed my bags and went."

"Even so, how does a junior assistant with the wrong degree end up in charge of such an important project?" Reynaud asked.

"Some of my predecessors were political appointments whose only degrees were in Law," Linda pointed out. She laughed bitterly. "That really slowed down the project. Lawyers, in general, have no real appreciation for scientific research. How can they? Their research involves reading what has already been written, you can put a time-table to it. Creative research has no time-table, but some of them tried to schedule advancements anyway. But that does not answer your question, does it?

"I went back to school," she explained. "No matter where we moved – Toronto, Cambridge," she paused to chuckle and added "Cambridge," again, tacking on, "Massachusetts, California a few other places – we were always attached to a prestigious university. My doctorate in Medicine was from Harvard, my PhD in Nano-Robotics from Cal Tech, although over half the hours were earned at MIT, but then my credit hours came from all over anyway."

"You say many of your predecessors were political?" Reynaud asked.

"Indeed," Linda nodded. "I put an end to that. That would have been in 2109. I was fifty-four and was named Temporary Head of the project. I was supposed to just be the bookmark between two politicals, but the powers that be were shaken badly when a small group of pacifists built their own ships and puttered off to somewhere in the Asteroid Belt. Private citizens were not supposed to be able to do that, you know. The history books call it the Pacifist Migration. Hardly a migration, really, but I used the governmental uncertainty to simply remove the 'Temporary' part of my title. We had a very experienced computer man on the staff too. I convinced him to rewrite the project's charter so that any leaders must come from within the Project itself. They could have forced us to accept a scientist and then promoted him or her, but they never did."

"You hijacked the Regenabot Project?" Reynaud asked.

"That shocks you?" Linda laughed, not bothering to deny it. "I swore on my son's grave that I would see an end to avoidable death, Reynaud. That was just part of what it took to make good on that oath.

"Progress was slow even after I was in charge," she continued. "I realized that regenabots would not be the only answer. We needed to improve the human race. For a while I had some of my team looking into human 'upgrades.' We mapped a fair number of points on the human genome where gene splicing might work best. A few years later, that part of the project was spun off as the Eugenics Project with its own governmental charter and funding."

"You started the Eugenics Project?" Reynaud asked. "I didn't know that either."

"Think of it as one of my children," Linda told him. "I gave birth to it, gave it a good start, but I don't take credit for what it accomplished. Just as I do not take credit for nano-implant technology and other enhancements, although I did what I could to foster the projects that brought them about. They all went toward the same goal; defeating death. But while they made humans healthy and hardier, only the regenabots could bring people back from death."

"How long before you had the first true regenabot?" Reynaud asked.

"That depends on what you think a regenabot is," Linda replied. "In 2132, the Sons of Earth released the SoE virus. It stretched our medical resources to the breaking point and, in many places, beyond. In 2134, my team and I responded to that virus with the first 'NanoCure.' I do not really consider that an example of regenabots, although some of the textbooks do. The NanoCure was definitely a work in progress – at first it was just a prophylactic measure, but could do very little to help those already infected. The SoE Virus mutated rapidly and it took us

over a year to develop a NanoCure that was equally rapid to adapt."

"But you did," Reynaud pointed out.

"We did," Linda nodded. "And in doing so we learned a lot that we later applied to the first regenabots. Strangely, our breakthrough came about in conjunction with the success of the Eugenics Project in 2140. They developed species better adapted to working in space – most especially in mining operations, and we came up with the first true regenabots to keep them on the job. And yet there was still a restriction that kept us from experimenting on humans.

"It was a strange time," she went on. "We were under constant pressure to improve the regenabots, but we were not allowed to ask for human volunteers. In 2141 we finally figured out how to build a regenabot that could scavenge resources on its own and to a great extent improve itself as it went. And still there were some reactionary politicians who refused to allow us to use human subjects because that was 'an unsafe practice."

"What did you do?" Reynaud asked.

"I used myself as a test subject," Linda replied matter-of-factly. "I was not sick or injured, but I was eighty-six years old and not getting any younger. A few months later, I looked years younger, eighty-seven going on seventy and that was enough to get the fence-sitters in the government to approve the first regenabots that were released into the wild."

"They were highly successful, weren't they?" Reynaud asked.

"They were. Yes," Linda nodded, "They could treat any ailing human, even those suffering from the military-grade plagues that followed the SoE virus. I was awarded the Nobel Prize, and for the next few years Earth enjoyed a new golden age, but we failed to see the consequences of the regenabots."

"You regret having invented them?" Reynaud asked quietly.

"Never!" Linda responded passionately, "but we should have seen that with fewer deaths, the population would rise rapidly. Also humans were not psychologically adapted to immortality, I doubt we are yet. Immortality is something you need to grow into, not have thrust upon you. We had so many new problems to deal with. Regenabots could heal bodies but not minds. How do you deal with a psychopath when you know he or she will never die?"

"By mind-wiping," Reynaud shrugged.

"You prove you are as young as you look," Linda laughed. "It was not obvious to us. My only real regret was that I encouraged new research into neural networks for increased computing power. The result was an accident we called the Super AI."

"The first of the AIs?" Reynaud asked. "I never heard that was an accidental development."

"An abomination, if you ask me," Linda retorted, "and in a sense, you did. I had misgivings about the Super AI from the first time I encountered it. I fought against tasking it with 'helping' the regenabots. I pointed out publically that the priorities and interests of a self-aware machine could never be trusted to completely coincide with that of humans.

"I was discredited, of course," she sighed. "They said that I was jealous of the AI and that I was merely trying to recapture the limelight. The Regenabot Project was closed down. Super AI would handle that from now on and I was forced into retirement. I was ninety-three and going on fifty. I was not done yet."

"You are hardly the first hero to have been dismissed by the public once they felt no more need for you," Reynard pointed out.

"Hardly," Linda agreed. "Am I a hero? Maybe, but I saw the Super AI for what it was before nearly everyone but Son of Earth himself and I knew my work was not yet done. I retired officially. I had a nice little ranch outside my native Calgary and raised a few sheep."

"Sheep?" Reynaud asked. "Not cattle or horses?"

"I wasn't too popular with the neighbors for that choice," she admitted, "but even then there were precious few entirely natural cattle or horses. Sheep lasted longer. I might have used goats, there were still a fair number of unenhanced populations of them when the disaster struck, but sheep were better suited to my continued research. The Super AI was taking over control of the regenabots. We had always made them able to be recalled so we could replace extant ones with improvements, but would the AI's notion of an improvement match mine? I couldn't take the chance."

"The AI's do not seem to have done too bad a job improving the regenabots," Reynaud pointed out.

"Granted," Linda agreed, "but it has been less than forty years. The AI Council does not see time the way we do and as I said, they do not have our priorities. What's best for the AI's is not necessarily what is best for humans. If they are improving the regenabots, they have a reason that benefits them. You mark my words.

"Anyway, I never trusted the Super AI, so as soon as I was retired, I went back to work improving regenabots too," Linda explained. "I wanted a strain of regenabots the AI's could not control. That turned out to be amazingly easy. Change the frequency. Change the instruction code. Change the encryption algorithm. Any one of those would accomplish the trick. I used

them all. I also made a habit of capturing AI-controlled bots. I analyzed them and used what I learned to keep mine up to spec with the latest AI releases. Actually, mine are better. They do their jobs faster and more efficiently."

"When did you join the Sons of Earth?" Reynaud asked, changing the subject.

"Not until late in 2159," she replied. "I might have distrusted the AI Council, but I had reservations about Son of Earth too. Remember the Sons of Earth started out peacefully enough, with a reverence for life and natural balance. They were ignored, of course. All that changed when they created Son of Earth. He was militant and took their pseudo-religion on jihad. Son of Earth turned their goal from reverence of life to exclude any life that did not agree with him. The purges within the Sons of Earth were almost as bloody as what he did later.

"Basically, he was a child who, on not getting what he wanted, threw a temper tantrum that stained the world with blood," she told him. "I think we all heaved a sigh of relief when he seemed to have died a few years later. Of course, maybe he did. He started life as a supposedly optimized clone and he's been cloned again since then. Who's to say if the Son of Earth on this ship is the original? It hardly matters. He has the original's memories and thought processes.

"But you asked when I joined," she shrugged. "You meant, why did I join? It was a hard decision, but when it came right down to it. Son of Earth is human. Optimized human, whatever that means, but human none the less. He can be reasoned with, barely. The AI's cannot. I once told Son of Earth the entities he most resembles are the AI's. That set him back, believe you me!"

"That was an incredibly brave thing to do," Reynaud commented.

"Was it?" Linda laughed. "It was on my one hundred and tenth birthday. What could he do? No, he had to be indulgent. Also, even if that was the original, he was only forty years old. I was almost three times his age. Even Son of Earth can be awed. But it is true or was more true then than it might be now. The AI Council is absolutely certain that it is right in all things and has the right to do anything to achieve its goals. How is Son of Earth any different. The goals are different, but the unreasoningly steadfast belief both hold is the same.

"I was ready to leave the Sons of Earth in 2171," Linda went on. "Son of Earth, in his 'righteous indignation,' chose to release a new variant of Amalgon-3 among the Free Captains. Amalgam-3 was targeted against nanites in those people's heads. The Free Captains, as you know, hold no loyalty to any corporation, save perhaps their own. Son of Earth's goal was to have a mass conversion of loyalty to the Sons of Earth. We got a fair number, but the ends do not justify the means. Besides, as I predicted at the time, the AI's countered the Amalgon attack fairly quickly.

"Well, having some spacer captains has turned out to be useful, but to the AI Council the Free Captains are a tool, not a resource. We deprived them of a few tools, but did no lasting harm to the AI's. Attacking the people living within their sphere of influence does not really harm the AI Council. They have the regenabots so death is rarely permanent."

"Your doing," Reynaud reminded her.

"My doing," she nodded. "Did you ever hear the story of what I said when I released the first regenabots into the wild? According to the story I looked out of my window even as the first of them were helping people and muttered, 'What could possibly go wrong?"

"Famous last words," Reynaud smiled.

"Incredibly hubristic ones, had I actually said or even thought them," Linda countered. "I never did, thankfully. Just keep in mind that there is no invention so good and pure it cannot be corrupted."

Reynaud nodded, made a few notes and then finally got up from his seat. "Thank you, Doctor Red Willow."

Linda nodded wordlessly and, as he went to another part of the spaceship, she turned to take another look at the ruined Earth. It looked the same as it had a little earlier, almost entirely white with clouds. She might never see her home world again, bound as she was for the Inner System. There was work to be done, new colonies to found, new homes to build. She was one-hundred-and-thirty-three now and looked... ageless.

Just before boarding the evacuation ship, Linda had released one last set of regenabots into the wild. She had told no one about them – she never would. "There are so few of you," she whispered, "and it is such a large world. What will you make of it, my children?"

She smiled serenely. "My doing."