Chapter 1

Wednesday, September 30, 2161, at 9:20 a.m.

How did it come to this?

Alessi huddled under a pew in the crumbling church, staring at the astronomical readouts on her computer. The readings from the satellites stabilized long enough for her to see that the shadow emerging from the anomaly over Antarctica was debris from outside of this dimension.

It was a rogue planet. No, not a rogue planet. It was an Earth destroyed by an experiment that should have never happened.

Where is my family?

The small spatial distortion over Antarctica should have been left alone. It would have remained harmless if she ignored it, simply a blip in the fabric of reality. Instead, she had to poke at it, prying it open until they were completely open to the other side and unable to hide from this catastrophic fate.

Where is Layne?

It was too late to decide how she felt about him now. It was too late for anything. Then again, she knew that she was a fool. Her desire to become the foremost expert in string theory had brought about the end of the world. This was her fault. She was separated from everybody and everything she knew and now, it was all crashing down around her. Literally.

Stacia's face appeared in the dust falling in the space next to the pew. "What's the latest?"

Alessi crawled out of her hiding spot. "The anomaly has stabilized. It's only a matter of time before the magnetic field coming through it will tear us apart."

Stacia shook her head. "This is impossible."

"Nothing is impossible." Alessi swallowed past the lump in her throat. "I shouldn't have answered that signal. Our connection caused the destabilization. The expansion has stopped and all of creation is collapsing into nothing."

The ground shook again, raining plaster over the crowded sanctuary. "How long?" Stacia asked.

"There's no way to say," she shut down her laptop and zipped it in her tote bag by the crystal keyring of planet Earth. "Our satellites are unstable. I got a glimpse of what was happening. The magnetic forces of the pulsar have destroyed the Earth on the other side of the anomaly, and it's pushing through our side. That planet is on a collision course with the South Pole. Nothing can stop it."

Alessi and Stacia tumbled to the floor as the ground shook again.

"How long do we have?" Stacia asked.

Other people crawled toward them, listening to the conversation. Alessi pulled herself to her feet.

"I don't know. There are no computer models to tell us what to expect. Nothing like this has ever happened."

"We're waiting to die," a woman sobbed.

"This isn't the end, but a new beginning," the priest said from the middle of the group. Everybody turned to the kindly old man as he stepped into the crumbling pulpit. "You don't have to be a scientist to know the truth. This is the end. Not just the end of us, but the end of time. Nothing can save us, can it?"

All eyes turned on Alessi. She shook her head. "No."

"Then let us prepare for the end of this life and the life to come."

The chatter in the flickering light of the sanctuary was silenced as the priest climbed into what was left of the pulpit. "Through this holy anointing may the Lord in his love and mercy help you with the grace of the Holy Spirit. May the Lord who frees you from sin save you and raise you up."

"I don't want to die!" the sobbing woman screamed.

"Our Father, who art in Heaven, hallowed be Thy name. Thy kingdom come. Thy will be done on earth as it is in Heaven."

"I hope Heaven isn't collapsing into fire and ash like we are!" a man yelled.

"Give us this day our daily bread, and forgive us our trespasses, as we forgive those who trespass against us, and lead us not into temptation, but deliver us from evil. Thine is the kingdom, and the power, and the glory, forever and ever. Amen."

Alessi closed her eyes, tears falling from her eyelids and dripping on the crystal keyring dangling from her laptop case on the floor next to her feet. "Amen."

A knock made Alessi jump. "Alessi, are you alright?"

She opened her eye to see her father standing in the doorway of her room. "What?"

He walked into the pink bedroom. "I know you're upset about your grandfather, but you need to come out. The church went to a lot of trouble to make us dinner, and Aiden and Stacia are asking for you."

"I know. It's just that Mom's crying."

"She misses her dad."

"I know. I miss you --."

Alessi froze, looking around the pink bedroom.

How did it come to this?

Her gaze turned to her father. It was him. Her father, Gerald Byrne. Not ravaged by the lung cancer that killed him nearly two years ago, but healthy and happy. As happy as he could be after losing his father-in-law and dealing with a grieving family.

Her heart skipped a beat.

This isn't real.

"What's happening?" she asked.

"Alessi, are you alright? You locked yourself in here when we got back from the funeral, and that muttering was the first thing we heard out of you in nearly an hour." He reached for her, but she stumbled backward against the wall across from her dresser. She glanced in the mirror.

It was her reflection, but she was 13 years old. Her reflection showed the short, skinny frame and long, red hair of her youth.

"Alessi?" her father said.

"No," she backed against the wall. "Who are you?"

"I'm your dad!"

"This is wrong. The end was here. The priest was praying – "

"Alessi, what are you talking about? I'm fine. I'm right here."

"No, you aren't. But at least you got a proper burial. The rest of us collapsed in fire and ash."

Thunder rocked the sky. A flash of lightning lit the window, sending a sparkle from the crystal globe keyring lying on her dresser before the room went black and silent.

Chapter 2

Thursday, July 2, 2161, at 1:57 p.m.

"What do you mean the relays aren't working?" Alessi asked as she fiddled with the mirrored nameplate on her desk that read: Dr. Alessi Byrne, Lead Physicist.

Crystelle Loren, the doctoral candidate, paled looking into the computer screen. Her washed-out complexion combined with white-blonde hair, blue eyes, and the bland walls in the background were giving Alessi a headache. She wanted to lean back in her office chair but didn't dare show any signs of weakness, even over the video link. She had worked too hard and been through too much to become one of the foremost experts in string theory in the world. She had to uphold that image no matter what, and there was plenty of "what" in theoretical physics. Heck, there was plenty of "what" in every area of her life. At least she had some level of control here.

"The signal isn't constant or reading everything happening here."

"Computers do that. Have you talked to Reid?"

"He's working on it, but nothing's wrong with our system." Crystelle paused as static crackled across the screen. "At least the system is working as well as it will here."

Alessi sighed. Of course, the computers were glitching. They always did at McMurdo Station, especially during their winter. She should know. She spent three months down there earlier this year setting up the station for this research. It was amazing, but the midnight sun was something she was content to see once in a lifetime, especially in that incomprehensible cold. Plus, she missed the comfort of home. She never wanted to go back, although she knew she probably would have to return to McMurdo if everything turned out as she hoped.

"Is this a technical error, or do you believe it has to do with the readings themselves?" Alessi asked.

Crystelle shrugged. "These are the strangest readings I've ever seen. I don't think it's a computer error. I think it's proof of something else."

Alessi raised an eyebrow. "Something else?"

"String theory. I think we found an unidentified dimension."

"On the ground or in space?"

"It looks like it's coming from space, but it's hard to tell. The computers are coming up with too many variables. We need to narrow them down."

"Did Reid and his team do a good job completing the systems down there?"

"They did fantastic. All of the systems and our Internet connection are better than they ever have been down here. The problem is that the AI is having trouble sorting through the data. It has elements that aren't on our periodic table and energy readings that should be impossible. I'm surprised the Space Authority doesn't have their people coming over to study this with us."

"They don't categorize it as relevant, and we aren't sharing," Alessi said.

Crystelle raised an eyebrow. "Why?"

Alessi shrugged. "I don't think they realize what we're doing. InterStellar Research is a small lab that works mostly with the academic community for research. I don't know how much value the Space Authority believes this work has."

"Aren't we working with them on this project? I thought they supplied and funded a lot of this equipment and contributed to your grant. They have three members on the Board of Directors."

On paper they did. In reality, not so much. The Space Authority was scared of the spatial anomaly. Alessi knew the Space Authority was hoping it would go away, simply another unexplained blip in the universe that was here one minute and gone the next. There had been a lot of that since they expanded their range of observation. Then again, this "blip" had been around significantly longer than a minute. Alessi knew this was something more than another random occurrence in the space around them.

Alessi wasn't supposed to know that the Space Authority was scared of the anomaly but Dallen Mallow, the project administrator, slipped one day when they got into an argument over how much information the McMurdo team needed to continue with the project. Politics reigned, even in private scientific research. She couldn't tell her team that they were at odds with their primary source of funding for their research. InterStellar wanted to prove that the anomaly was significant, while the Space Authority wanted to dismiss it so they could divert those resources to deep space projects.

"That's above my level," Alessi said. "I just do research. Clean up those glitches the best you can and transmit the data to me as soon as possible."

"Should I stay on duty until it's done? "Crystelle asked.

Alessi glanced at the small clock on her computer screen that showed the time at McMurdo next to her time. InterStellar Research operated in a five-story building on the Virginia side of Washington, D.C., and had recently expanded to include two teams stationed at McMurdo: one working the 6:00 A.M. to 6:00 P.M. shift, and one working the 6:00 P.M. to 6:00 A.M. shift. Because of the time difference, Alessi usually spoke to Crystelle, who headed up the night shift staff, since their schedule overlapped with the company's operating hours. Alessi hated to keep Crystelle overtime, but briefing the day shift would take time from working the

problem and getting that data flowing again. Plus, Alessi was due to give Dallen an update on the station readings in two hours.

"Brief the day staff, but stay on duty until eight o'clock. I have to give a project update, so I'd prefer it if you oversaw this data until then. Then get some rest."

"Will do, boss."

"Thank you for calling with this update. Take care down there."

The screen projecting over Alessi's desk closed as her phone rang. Her stomach clenched when she saw it was her mom. She tapped the screen.

"The grocery order was messed up. They forgot my tomatoes again."

"Hello, Mom. How are you?"

"Maybe you should order from someplace else. I don't like these people. They think they can get away with charging me the same, knowing that the apples they supposedly substituted are cheaper than the tomatoes I paid for."

Breathe, Alessi thought, remembering her therapist's advice.

"I'm sorry the order is messed up, but that's the only store that will do at-home delivery to the farm," Alessi said. Her home was on twenty acres of her father's old family farm in Placid, Virginia. It was a small community located off I-95 and, on a good day, was only a 30-minute drive to the office on the outskirts of D.C. "If you'd do pickup, then you'd have more options."

"You know I can't go out, especially in this heat. It will trigger another migraine."

Of course.

"Did they mess up your order?" Mom asked.

"No, it was fine."

"You're breathing heavily. What's wrong? Are you sick? You work too hard. I knew you didn't sound well when we talked last night."

"I'm fine Mom, it's just some problems with the data transmissions at McMurdo. I have a meeting in a couple of hours and need to figure this out."

"Lord knows, there shouldn't be any problems. You spent long enough down there setting everything up. Don't they know how to do things without you around? You won't have to go back to that forsaken place, will you?"

"These things happen. They can handle it. Look, I have to get my report ready. I'll talk to you later."

"Can you pick up some tomatoes and bring them by on your way home from work? I need them for the 4th of July picnic."

Alessi sighed. "I have a therapist appointment after work, so I'll be late. I have some tomatoes at the house. You can go in and get them, or I can bring them tomorrow." She paused. "That reminds me, did you refill your medication? Aiden said you were having issues with the pharmacy."

"I'm fine," Mom snapped. "Forget about the tomatoes. I'll ask Aiden or do without if he can tear himself away from his patients long enough."

"Ok, I'll talk to you later."

Stacia Vogel appeared in the office doorway. She smiled as Alessi rubbed her head and looked up. "Bad timing?"

Alessi shook her head. "Mom's having a bad day."

Stacia whistled. "I'm sorry to hear that. At least I hear that we have good news from McMurdo, so hopefully you're having a better day than she is."

Alessi leaned back and pushed her chin-length auburn hair out of her pale face. A glance at her reflection in the chrome picture frame of her with her parents and brother at her doctoral hooding showed that her green eyes were bloodshot, and deepened by dark rings. Mom was right about one thing: she had been working too much lately. "We finally got readings that confirm the spatial anomaly over Antarctica, and the computer systems started glitching just as the data was coming through last night."

"Yikes," Stacia said as she lowered her curvy frame into the plush chair across Alessi's desk. Her long brown hair and golden skin glowed in the sunlight streaming through the windows. "Is it why you look tired? Or is the conversation you just had with your mother?"

Alessi sighed as she tapped the remote app on her computer to close the blinds on the two windows in her office showing the suburbs stretching out to Washington D.C. in the distance shut. "I have a headache."

"You work too hard. Go home and take a break today."

Alessi forced a smile. "You're the second person to say that in the last five minutes. I know it's true, but I'm the foremost expert on string theory in the world, working discretely in a medium size research facility outside of the Nation's Capital on a secret project. Time off is hard to come by."

"You're the boss."

"I answer to other bosses, and secrecy is a must. It's not like I can delegate."

"You were just on a call with a doctoral assistant from the University."

"An assistant on a joint funding agreement with Georgetown University for the research team." Alessi leaned back and rubbed her head. "I have to give Dallen an update

on these readings in a couple of hours. I hope they can clean up this glitch so it will be a decent report."

Stacia raised an eyebrow, her brown eyes glowing in amusement. "Dorky Dallen? I hope it's newsworthy. He's going to be disappointed if you don't give him a juicy discovery to pass along to the Board of Directors and the press. He still thinks we're poised to put this company in the Fortune 500."

Alessi laughed. "I don't think a research company working with the academic community and federal government on experimental physics and interstellar research has ever broken that barrier. This won't be anything to take us out of obscurity. We just detected the distortions from the anomaly four years ago and got everything set up at McMurdo three months ago. It's just my luck that we would have a surge that overwhelmed the AI before the Fourth of July holiday. I was hoping to take tomorrow off."

"Go ahead. I'll be here."

"I thought you were supposed to be off tomorrow," Alessi said.

Stacia shrugged. "My plans fell through, so I canceled the day off. Besides, it's the least I can do for my oldest friend. You look like you need a break. Let me give you one."

Stacia had always been mysterious to Alessi. She claimed they were childhood friends, but Alessi didn't remember meeting her until they had homeroom together in the eighth grade. Stacia plopped in the chair behind Alessi and showed her a picture of them at Aiden's and Alessi's fifth birthday party. The problem was that Alessi recognized everybody in the picture except Stacia. Aiden and Alessi's mother didn't remember Stacia. She didn't recall seeing Stacia's family either. Stacia didn't talk about her past, except to mention that her mother came to the United States on a student visa from Brazil, met and married her father while at the

University, and eventually became a permanent U.S. Citizen. Alessi decided to ignore her lack of memories and take Stacia's word for it when they grew closer through high school and shared occasional classes in college. One class that particularly bonded them was an art appreciation class during the second semester of their senior year to meet an elective requirement for their bachelor's degrees. The class was an unexpected blessing as a break from the rigor of the independent study project and the other two classes. Alessi and Stacia had a lot of fun in that class, listening to the eclectic professor and visiting art galleries. Their paths crossed again on this job when the spatial anomaly appeared four years ago. Alessi had been an adjunct professor at the University teaching a night class, and ran into Stacia leaving campus the day she confirmed the discovery at InterStellar. Soon after, the University appointed Stacia as a liaison on the interstellar research projects. Alessi didn't know what strings Stacia pulled to get that plush assignment, but it worked out well and she was glad to have a friend in the office, at least part of the time.

She and Stacia were destined to be friends forever. It was easier to accept it, even if her memory didn't support it before eighth grade.

"Let me see how this meeting goes. I'll text you if I can take the day off."

Stacia stood. "Take it off anyway. When's the last time you had a 'me' day?"

Alessi shrugged. "I think it was when Kolby and I went to the beach for my

Stacia tipped her head. "Have you heard from him?"

birthday last year before he started his job in Southern California."

Alessi looked down. "We talk occasionally. It's complicated."

"It sure is with him teaching interstellar physics in Southern California and you working in a lab in Washington D.C. Come on, girl. It's been almost a year. Are you

going to move, or let him go? The long-distance thing can't last forever. How often is 'occasionally?' Be honest, when's the last time you two talked?"

Alessi looked down. "A week ago."

"A week!" Stacia shrieked. She looked around as two people passing in the hall stopped and looked into the office. She and Alessi smiled at them, and they moved on warily. "Why haven't you visited this summer?"

"He's teaching summer school."

"Alessi, it's time to move out or move on. What are you going to do?"

"I don't know."

Stacia smiled. "It sounds like you need time to figure things out. Take tomorrow off.

You'll be glad you did, and you might not get another opportunity for a long time."

"That's not optimistic."

Stacia stopped in the doorway. "I don't mean to be a drag. It's just a feeling. I think what you've found is something that will change things forever."

Alessi shook her head. "I think you're overstating the case. It's just an anomaly. We don't know what it means or where it leads. Proving it is the first step of a complicated process that will probably take the rest of my career. I may never see the results."

Stacia winked. "You will. Have faith. Things will turn out alright, and you'll prove your theories. I can feel it."

Alessi stared at her friend. "How? I don't feel anything but frustrated."

Stacia smiled. "That's usually how the most life-changing things start."

Chapter 3

Saturday, July 4, 2161, at 7 p.m.

"I heard you had a breakthrough at McMurdo a couple of days ago," Aiden said as he and Alessi sat on his back deck drinking strawberry margaritas after the family Fourth of July barbeque.

Alessi tensed in her white rocking chair, making sure that her mom occupied the pool area with her sister-in-law, Olivia, her teenage nephew Jayden, and his twin sister, Jain.

"Dallen overstated our findings at the press conference Thursday," Alessi said.

"We haven't confirmed that the readings aren't from known sources yet. My team is still looking into it."

"He seemed pretty sure about it. It has the scientific community in a stir. Signals that we've never seen before in this universe? Increased neutrino readings? Strange electrical and gravitational readings? That's big, Alessi. You can't keep it quiet forever."

Alessi looked at her twin brother who, ironically, didn't look anything like her. He had short, black hair, he was almost a foot taller than her five-foot three-inch frame, and his complexion was more yellow than fair like hers. The only trait they had in common was their green eyes. His personality was even the opposite of hers. He was outgoing, whereas she was reserved. It's why being a medical doctor working with patients suited him while being a physicist in a research lab suited her better. It's also why he couldn't understand why she was perturbed by the news of her discovery breaking sooner than she expected.

"Those readings came through two hours before I briefed Dallen. He spoke too soon. The team at McMurdo is still trying to clean up the data stream down there. He should have given us more time to study and interpret the data."

"I think it's obvious that something big is happening at the South Pole. This spatial anomaly was enough to send you to McMurdo for three months."

Alessi paused to take a drink. She knew her trip to Antarctica was a sore spot with her family. She managed to talk the powers that be into letting her be on the first team that went down from late January through late April, but it was still a blunt and painful separation at a difficult time. The fact that she couldn't talk about her work outside of the lab because of confidentiality clauses in her contract made it more difficult. Then again, her mom and brother eventually accepted her trip to Antarctica even though they didn't fully understand what she was doing. String theory wasn't a subject of conversation over dinner. It was complicated. It was controversial. She was on the verge of proving that this reality wasn't the only one that existed, and she wasn't allowed to talk to anybody about it. She relied on a lot of grace from her family when it came to her job.

"My concern is causing a public scare," Alessi said. "You know how most people are.

You say string theory, and they imagine a multiverse as they see it in fiction. It isn't like that. It's more complex. This spatial anomaly is the first of its kind seen this close to Earth in human history. We must read this data and process it properly so we'll know what it means to the planet and humanity."

"I don't think you give people enough credit," Aiden leaned back in his rocking chair.

"People are smarter than you think, and they're interested in this research. I don't understand being secretive about it. I thought you'd be excited."

"I am," Alessi said. "I'm not sure what we're looking at. This might be something alien and new, or it might be something natural that we've never seen before. You know it's dangerous to release incomplete information to the public. You've seen that with public health issues in the past."

He laughed. "Every time some new virus or infection goes around. I get it. It's not that you think people are stupid, it's that you want to give them the correct information without causing a panic. Unfortunately, the media isn't patient. They want drama, and every network wants to be the first to break it."

"And the administrators running the project want attention in hopes of getting more funding," Alessi said. "It always goes back to power and money."

Aiden sighed. "What if whatever's in that anomaly is bigger than that?"

Alessi mimicked his sigh, watching her family in the pool. Her mother seemed to be having a better day, but then again, she always perked up when the family was gathered. It was the one-on-one interactions when things got strained. "Then maybe we'll finally stop all of this pointless bickering and squabbling over things that don't matter and unite as humanity was meant to. Not under politics, or social causes, or stereotypes, but as human beings. Life is precious. Not enough people realize that."

"They do when it's threatened. I see it every day. It's easy to take things for granted when you feel fine and everything is going your way. Throw a wrench in the machine, and suddenly the focus shifts back to the basics."

"How long does it take to assimilate to that?" Alessi asked.

Aiden stared at her. "Are you talking personally or professionally now?" "Both."

"What's up? Besides the great tomato argument the day before yesterday?"

"I guess you talked to Mom?" Alessi asked.

"She called me at work, I guess after she called you. I got the tomatoes, then checked her medicine cabinet. She let her antidepressants run out again, so I got them refilled."

"Thank goodness for power of attorney."

"Thank goodness I'm a doctor who isn't afraid to call in a favor with the pharmacist when I find out my mother is giving my sister a hard time because she thinks she doesn't need her pills."

"Now you see why I don't want them," Alessi said.

"You don't need them," Aiden said. "You need a new mindset and attitude. It's not like you to be so glum about such a discovery so I'll ask again, what's up?"

Alessi picked up the margarita pitcher and refilled their glasses. "Kolby called yesterday.

He's accepted a permanent job with SETI in Arizona."

Aiden blinked. "Without talking to you about it?"

Alessi nodded and took a long drink. "He's staying out there, so my choice is to move or break up."

Aiden leaned back. "There was no big announcement at lunch, so I'm guessing you took option number two?"

Alessi nodded.

"So that's it, then," he said. "I'm sorry."

Alessi shook her head. "I'm not. I should have done it a year ago. He was great when Dad died. So supportive. Always there. Helpful almost the point of being aggravating. Then he took this job and drifted. I should have seen him pulling away. If he could leave me for a year

and then make a major decision alone, then there's no way he'd have respect for me as a wife. He didn't respect me as a girlfriend, and I doubt that would change. I'd be a lonely, kept woman, and that's not me. Stacia told me the day before yesterday that I needed to end it, and —" she trailed off, realizing that she was rambling. "Layne called me this morning."

"Layne Veston, the boyfriend from college? He's called a lot since Dad died.

What's up with him? Is he still in Tennessee?"

"He might be moving back here."

Aiden raised an eyebrow. "Really? I remember that his dad passed last winter."

"It was while I was at McMurdo. I've been talking to him once a week since I got back. There's nothing for him there anymore, and he saw several job openings in this area. He was asking me about them."

"That's interesting," Aiden said. "I wonder if we could get Mom to rent him the cottage at the back of the farm. It's been empty since the previous renters moved out five years ago. Dad got it cleaned out before he got sick but never followed up with calling a realtor about it. Maybe it's time—"

"Whoa!" Alessi said. "I think we are getting ahead of everything now. It's just talk," she paused. "Just like this anomaly. It's preliminary data. We need to be patient and see how things work out."

Aiden stared at Alessi again. "Because they might not, right?"

Alessi shrugged. "You never know."

"You never give things a chance. You said your therapist told you that you have abandonment issues, especially with men. I think she's right."

"Aiden."

He held up a hand. "I talked to Mom about her issues, and now I'm talking to you. I know losing Granddaddy when we were preteens was a huge loss. You were close and it took a while. Then Dad passed, and all of those issues came back up along with the new issues of losing your father. I get it. We've all had a lot of loss, and you had one more with Kolby pulling your strings. Well, it's over now, so start over. Layne is a great guy, and your research is promising. You need to stop being scared and get back out there, and you need to believe that good things can happen. They can, Alessi, so let them. Give your job a chance. Give Layne a chance. Give us a chance." He stared at Mom laughing with his family at the pool. "Give yourself a chance. Who knows? Maybe your healing will help Mom with her healing. One good turn can lead to others."

"Thank you, Dr. Byrne," Alessi said.

He raised his glass. "You're welcome, Dr. Byrne. Here's to freedom. From the past. From fear. And for the future."

She halfheartedly raised her glass. "Cheers."

Chapter 4

Thursday, September 30, 2151, at 9:30 a.m.

Alessi stared at the body of the man crushed under a ceiling tile. "This is my fault."

"He was standing in the wrong place at the wrong time," Stacia said. "Besides, he panicked. Everybody did."

Alessi laughed bitterly as she looked around the crumbling room full of dead bodies. "Another world is crashing into ours through an interdimensional portal that I forced open. The Space Authority left it alone, and that should have been a sign. I should have too." She leaned against the crumbling wall. "I should have never answered that signal."

Stacia took Alessi by the shoulders. "Listen to me. You didn't open that spatial rift and had no way of knowing what our research would do to it. You followed through as any scientist would. If you hadn't done it, then somebody else would have."

Alessi looked at Stacia, who looked amazingly calm even though a violent tremor collapsed the roof of the church around them. How were they still alive? Shouldn't they be under that rubble, like everybody else?

"Why are we here?" Alessi asked.

"Random chance. Circumstances. Who can remember what led us to this place?"

"I should be with my family and Layne."

"You can't. They're dead. Everybody is."

"Why aren't we?" Alessi noticed that the ground quit shaking. Silence permeated the air. Goosebumps raised on her arms. She rushed to the door. Stacia grabbed her arm.

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"What are you doing? You can't go out there!"
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Stacia released Alessi's arm and looked around the room. "It's over."

"What's over?"

"Everything," Stacia said.

"What does that mean?"

A light flashed in the windows.

"The key to the world."

Alessi looked at the crystal keyring Aiden handed her, sparking in the bright sunlight outside of the University auditorium. "What's this?"

"The key to your new home," Dad said. "The renovations to the third house on the farm are complete. It's your graduation present. I've already synched the home and property gate to your estate profile."

"Congratulations, Alessi," her mother hugged her. "I'm so proud of you. I can't believe both of our children are doctors today!"

"The keyring was my idea," Aiden said. "The world is yours now. Treat it well."

"A house? Are you sure you don't want to rent it?"

Dad shook his head. "No, it's family land, and every house on it belongs to us. I want you to have a refuge from the lab. You're lucky your doctoral thesis was so good that InterStellar noticed it and hired you."

"Aiden, what about you?" Alessi asked.

[&]quot;What happened?" Alessi asked.

[&]quot;What do you mean?"

[&]quot;Everything stopped."

"Olivia and I will renovate our house when our residency in Chicago is over."

Alessi raised an eyebrow. "Are you sure you're coming back here? You might not want to after you see more of the world."

Aiden shook his head. "She's sore enough about missing this to stay in Chicago for work and to take care of the twins. No, we're coming back home. Until then, keep the homeplace up for me, would you? And keep this world turning in the right direction."

She laughed, but a cramp in her stomach stopped her as the light glinted off the keyring again.

Are you sure this is what you want?

Alessi shuddered, despite the warm afternoon.

"Are you alright?" Mom asked. "You look pale."

The ground shook. The sky darkened. She looked up to see rubble spreading across the purple sky.

"I – "she cut off as she realized she was standing in the street alone.

"Are you sure this is what you want?"

She looked around to find Stacia standing in the parking lot, her doctoral robe tattered.

"Stacia, what happened?"

Stacia looked at the sky. "We made it to the end, Alessi."

Alessi dropped the crystal keyring. It bounced on the cracked pavement and rolled away, its white light glowing as it rolled into the darkness.

Chapter 5

Monday, July 6, 2161, at 10:00 a.m.

Alessi sat at her desk Monday morning, watching the light sparkle from the globe keyring on an ornament holder next to her computer. People thought she was strange to keep a keyring as a desk ornament, but it was beautiful and reminded her of the purpose she had when she started this job just after getting her Ph.D. Aiden was right: it was a perfect gift for her. The house key that had been attached when her parents gave it to her was safely locked in her cedar chest at home since she used her personal Artificial Intelligence for everything. The keyring was a special symbol of her brother's frequent admonition to use her education, talents, and abilities well, and she wanted it where it would remind her of her purpose every day.

The world is yours now. Treat it well.

The video monitor on her computer screen came to life as Crystelle came online.

She was joined seconds later by Dr. Reid Ressiter, the lead physicist and head of their

Information Technology team at McMurdo. Alessi smiled at her video camera.

"Good evening. Thanks for joining me for this update."

"No problem," Crystelle said. "It's good to have contact with the outside world.

Where's Dallen?"

"Running late, as usual," he said as he walked into Alessi's office. He sat his computer on Alessi's desk and projected his video conferencing app to join the call. "My apologies. I have no excuse except that I chose to extend my Fourth of July holiday a few more hours this morning, and lost track of time."

"It's not a problem," Alessi said. "We just got everybody logged on."

"You sound better today," Crystelle said. "The day off must have done you some good."

"It did," Alessi said. The long weekend, break-up with Kolby, honest conversation with

Aiden, and time with the family helped her to feel better, and a long video chat with Layne the

previous night helped her relax. She didn't realize how burned out she had been. She even shut

off her personal AI through her neural chip over the weekend, so she could have a complete

respite from her work. Stacia was right: she was burned out and she needed a break. "I'm ready

to find out more about these signals you found last week. Have you been able to clean them up?"

"Somewhat," Reid said, his soft voice contrasting with the strong military look of his broad face and buzz-cut, blonde hair. "The signal bursts stopped early Saturday morning our time, which would have been Friday afternoon your time. Our team sequestered the data burst from our other incoming interstellar data, and set the AI to analyze it. It looks like there's a message in the data stream."

"What message?" Dallen asked. Alessi understood why people in the office called him "Dorky Dallen." He had dark blonde hair that was always sticking up, brown eyes, a tall, thin frame, and a soft voice that could turn whiny when he was distracted or upset. Despite his appearance, he was a brilliant organizer and made keeping their complex project on track look easy. His dual Ph.D. in Computer Science and Math also helped to process their data faster and more efficiently than most comparative teams at other labs and universities. Surprisingly, he didn't work for the Space Authority.

Then again, having Artificial Intelligence to help crunch the data also helped. Neural chip implants had been the greatest advancement of the 2140s. Integrating artificial intelligence through those chips was the greatest advancement of the 2150s. Alessi hoped they were on the verge of the greatest find of the 2160s.

"I compared the data to the data stream we have coming from the Martian Outpost Station, and the quantum code is similar," Reid said. "The problem is that it's converting to a language that our AI doesn't recognize. I have a program running to compare it to all known languages, past and present, to see if it can decipher it. The program is running slowly."

"Is it possible for us to borrow a linguist from the University?" Crystelle asked.

"A human expert in the field would give us something more to work with. Sometimes,
people can still come up with better ideas than the AI."

"I doubt the University will go for it, but I can ask," Dallen said. "Why did you compare it to the messages from the Martian Outpost Station?"

"It gave me a baseline for normal spatial communications," Reid said. "I wanted to make sure we weren't picking up an echo or another normal spatial phenomenon that we're misinterpreting as an alien signal. Another reason is because that outpost is picking up what we define as 'spatial anomalies' all the time. I wanted to see if this one has been cataloged."

"Has it?" Alessi asked.

"No," Reid said. "It's unique. I was limited to looking at the public access records, which are basic data about the date and location where it was discovered. I'd need more access to the Space Authority database for specific information. That's restricted and they won't grant access to people outside of their organization."

"We're supposed to be working together on this project," Alessi said. "Is there any way we can use that to justify expanded access for InterStellar?"

"Doubtful," Dallen said. "They don't like that we're spending so many resources studying this anomaly. Don't forget, their logic for contributing to our studies was for us to help them build on their Artemis Program to build more space stations and fund more crews going to Mars and the Jovian System."

Alessi leaned back in her chair. "I don't understand why they aren't more interested in this. We found a unique spatial phenomenon in the space over Antarctica and they want us to ignore it."

"Not ignore it, just catalog it and flag it for exploration if there are any changes to it,"

Dallen said.

"Which there was last week," Crystelle said. "It's gone quiet again. We can only see a small trace of it in infrared. We'll let you know if it starts to emit again."

"We should be able to pick up signals better if it becomes active again," Reid said. "I've recalibrated everything down here, and our signals are cleaner than they ever have been in the history of this station. Other people are begging me to upgrade their systems."

"Tell the Space Authority that if they'll let us in their Spatial Anomaly Database, then we'll think about fixing their stuff at their other facilities in the area," Alessi said.

"Alessi," Dallen whined.

"I thought the Space Authority would be better when they evolved from NASA to include all of the space agencies and most of the private space entities in the world, but darn if they didn't bog themselves in the same autocratic nonsense," Alessi said.

Reid smiled. "Spoken like a true scientist."

"It's frustrating to know there's a resource so close that's closed to us," Alessi said.

"Maybe I can talk to the Board of Directors and see if we can get the Space

Authority to give Layne full access to their Spatial Anomaly Database," Dallen said. "I'll

put in a call to them when we're done here."

"Thank you," Alessi said. "How long did that burst from the anomaly last?"

"Forty hours," Crystelle said. "We can't tell if it was a continuous string of information, or if it was a repeating loop."

"Maybe it will resume," Alessi said. "Set up continuous monitoring of the anomaly and let me know if it starts transmitting again. I don't care what time of the day or night it is, here or there."

"We've already set that up," Reid said. "I'll add a parameter to send your AI a message if the anomaly starts transmitting again. Dallen, do you want to be alerted too?"

Dallen thought. "Have it send me a notification. This is Alessi's research, so she can brief me once she's reviewed the data."

"Thanks for your work down there," Alessi said. "I appreciate you meeting with us in the middle of your night to keep us informed."

Reid shrugged. "It's always the middle of the night down here now. Night shift, day shift, there's no difference. It's always dark now."

Alessi cringed. It was always light when she was setting up the station. She felt a prick of guilt for the team she sent down there, but they volunteered. They called it the opportunity of a lifetime. Then again, most of them were in their twenties, except for Reid, who had been a classmate of Alessi in graduate school. The interns and research assistants had nothing but time and open doors ahead of them.

How much time do you think is left?

A shudder ran through Alessi at the unbidden thought. She shook it off and put on a smile. "We appreciate all you do. Please keep us informed, and let us know if you need anything."

"Beer and pizza," Crystelle said hopefully. "We just got here a couple of weeks ago, and I already miss that part of normal life."

"Don't get her started on the Internet and cell phones," Reid said. "I do the best I can, but it only goes so far at the bottom of the world."

"I mean anything for the project," Alessi said. "I'll file the rest of the requests for your return party in October."

"Good enough for me," Reid said. "Let's hope aliens don't come through that anomaly and end us before then."

Alessi bid the team farewell, put her computer in hibernation, took it from the workstation on her desk, and stood.

"Let's see if we can find a linguist and access to the Space Authority database."

"Now we get to work miracles," Dallen stood, bumping against Alessi's desk and causing the light from the keyring to swirl white light and rainbows across her office.