CHAPTER 1

loud sound shattered Val's sleep. "David, what's that?" Val untangled from her husband and checked the clock-radio on the oak table beside her, realizing she'd heard the doorbell. "It's two a.m. Who's that at this hour?" In the dark, she hurried downstairs ahead of David, nearly sleepwalking, and looked through the peephole in the door.

"It's the tall, red-haired woman from the condo next door! I think her name is Mary. Something must have happened. Turn off the alarm, David, so we can let her in." Val heard the repeated beeps as he entered the code on the panel in the hall. When she opened the front door, a woman stood in the doorway wailing. Val stepped back, and the woman ducked her head to pass under the doorframe.

"Mommy is dead. She woke me up, calling my name. She couldn't breathe. Her throat made awful gagging sounds. I tried to wake her, but she wouldn't. Come see. Please. Please." The woman wore jeans with patches of extra denim sewn to the legs to make them long enough. Her plain navy T-shirt was spotted with tears, and her feet were bare.

Val and David slid into their matching black and white Adidas flip-flops at the front door and followed the woman to the open door of her condo. They followed her up the green carpeted stairs to a bedroom, past an old wooden dresser, to a poster bed.

A woman lay on the bed beneath a bedspread tucked neatly under her chin. Her eyes and mouth were open, and the musty scent of death repelled Val. But she forced herself to move the high collar of the woman's pink gown and pressed two fingers to the side of her neck.

"Yes, she's dead." Val stood awkwardly, and Mary hugged her, sobbing over Val's head. Then she pulled away, mumbling, "My name is Mary Solven." Then she sat on the edge of the bed, and said, "Mommy, Mommy," as she stroked her mother's face.

"I'm so sorry, Mary. Is there anyone we can call for you? Maybe your father?" Val asked. She looked around the room for a phone or pictures that might help identify relatives. "David, I don't see a phone. Can you call 911 from our condo?"

As David hurried out, Val noticed numerous white porcelain figurines on the bedside table and a gilt framed photograph of two young women with red hair.

"That's my mother and me taken a few years ago before she got sick," Mary said, as Val picked up the picture. "I don't have a father."

"What's your mother's name?" Val asked, examining the photograph more closely.

"Erika Solven."

"In this picture, she looks too young to be your mother, Mary. In fact, the two of you look about the same age."

Val handed the photograph to Mary and looking past her, noticed the religious icons and triptychs, some primitive and homemade, that cluttered the walls.

"Look, there's something under the picture," Mary said. She slid several worn pages out of the frame and read silently. Then she held the pages out to Val who saw that the language was foreign, probably Russian, although Val couldn't read it.

"Mommy says here that at her death she gives me to Dr. Val Smythe, the scientist next door. That's you. All Mommy's property and money are mine, but Dr. Val Smythe is appointed as trustee in charge until I reach twenty-one."

"Oh no, there must be some mistake," Val said, brushing a dark hand over her squiggly short hair. She suddenly felt self-conscious in her pajamas, and this diminished her resolve. "I don't know you or your mother, and you're a grown woman who doesn't need my help. How old are you?" The peppery shrimp stew David had served for supper welled in her throat.

"I'll be seven in November." Despite her tears, Mary spoke proudly.

"That's impossible! You're a mature young woman."

David reappeared in the doorway. "They're on their way."

Val turned to him for support. "What's going on here, David? Is this some sort of scam? We should go before we get any more

involved."

"I'm not sure what you mean. But I do know this woman is in pain, grieving. Someone needs to be with her." David turned to Mary. "You must have a father. Where is he?"

"He doesn't want me," Mary said. "Mommy wanted me to be with you," she pointed at Val, "and that's what I want."

"OK, Mary, let's save all this for later. We need to take care of your mother," Val said, regaining her composure. "Let's go sit in the living room until the ambulance arrives."

A couch and three chairs had been upholstered in dull, beige cloth. Two matching blond tables flanked the couch, and three other matching tables, one beside each chair, made the room look dull and muted. Identical lamps with flowered patterned bases feigned brightness, but the sameness of everything was almost overwhelming. Val decided she couldn't sit. She walked to one wall that held several small bookcases filled with books. Most of them seemed to be in the same foreign language. Val realized also that her scientific curiosity was working. She wanted Mary to translate more of the letter.

XXXX

Mary had refused to stay in her own condo without her mother, and David convinced Val that it was only humane to let her stay in their upstairs guestroom, and that if she was with them, they'd get to the bottom of this a lot faster. David, the ex-priest, Val thought, never got the "good Samaritan" out of his system.

The next morning, Val awakened to the familiar aroma of coffee, French dark roast—her favorite, with the bitter almost burnt taste she adored. This might be the only normal part of the weekend, she thought, as she pulled on her white terry cloth robe. David liked the contrast of her mocha skin against the white cloth. She heard his voice, and Mary's, as she started down the stairs.

"Well, everyone's up but me. That was a short night wasn't it, sweetheart?" Val said, kissing David and ignoring Mary for the moment, hoping she'd quietly disappear.

David wore khakis and T-shirt, which he covered with an apron to guard against the grease that invariably splattered when he fried anything. Val liked his straight blond hair and fair skin, slightly freckled from the sun, the antithesis of her complexion. His tall frame, lean muscles, and Germanic character reminded her a little of her father. She wondered if young girls who imprinted on their fathers later chose husbands that looked liked their fathers.

"Hey, babe," David said, "not much sleep for sure. But you know me. When I see daylight, I'm awake. That must be true of Mary too." He nodded toward Mary, who sat by a window, absorbed in watching something outside.

"Coffee may restore my civility."

David retrieved a white stoneware cup from the cabinet, filled it, and finished making breakfast. David and Val ate at their glass-topped dining table in a nook of the kitchen overlooking the courtyard. There was only room for two people, and Mary was too large to eat at the table anyway, so she ate from a breakfast tray on her lap. Even seated, Mary's unusual size was obvious. Everything about her was large, but proportionally so. She was beautiful, perhaps a Russian basketball player, Val considered. She'd confront Mary as soon as they finished breakfast.

"Mary, what does the rest of the letter say, and what language is it in? Russian?" Val asked.

"Yes. I'll get it from the bedroom upstairs and be right back, Mommy Val." Mary put her tray in the kitchen and went upstairs.

"Don't call me that!" Val yelled as she left the room. "I'm not your mother. Trustee and mother aren't the same!"

"Val, be nice. The girl's mother just died," David said softly.

Mary came back from the bedroom. She'd been crying again. She wiped her eyes with one hand and read them the letter. To Val's dismay, Mary repeated that she was born six years ago. Her father was Dr. Maximilian Solven, and he had left town after Mary was born. He owned the Solven Fertility Clinic in Houston and refused to answer Mrs. Solven's calls about her eminent death from cancer.

"Solven Fertility Clinic? Isn't that the clinic we went to in Houston, David?"

David nodded, not wanting to divert Mary from reading the letter. But Val's thoughts drifted there, to the time when they had consulted a doctor at Solven Fertility Clinic. But that doctor wasn't Solven, a name she hadn't previously associated with a doctor, just the clinic. Their doctor, Samuels, had told them that although David produced good sperm, they weren't able to fertilize her ova. The recommended procedure was *in vitro* fertilization. Sperm would be extracted from his testes and mixed in a Petri dish with eggs from her ovary. The embryos would be implanted into Val's uterus. However, they never got to the procedure. Or, rather, the time was never right for Val. Research was her baby, and she knew that David wouldn't push her. The sixty hours a week she devoted to work didn't allow time for bearing a child, much less caring for one. So they hadn't pursued it.

"Mommy told me I was born in my father's clinic when it was in Vermilion. Wait, I'll get my birth certificate from next door. It has all that information." Mary dashed out the door, ducking under the doorframe.

When she returned, she held not only her birth certificate but a stack of other papers. The signing physician on the birth certificate was Dr. Maximilian Solven, and her remarkable birth date was six years ago in November.

David said, "Well, I'll be a monkey's uncle. Would you look at that?"

Val was appalled. Why would someone put such a completely preposterous date on the birth certificate? Anyone looking at Mary could see the certificate was a forgery, although admittedly, a good one.

"Mary, who forged this birth certificate? It indicates that Mary Solven was six years old last November. You are not six years old."

"But this is the only birth certificate I have. Mommy gave it to me before she died. She said no one would believe it. I guess she was right."

"Yes, she was! We don't believe it," Val said, looking over at David for agreement. "Six-year-olds can't read, and you can read fluent Russian and speak English. How do you explain that?"

Mary pulled out a stack of color photographs held together by

a green rubber band. "Here's a picture of me taken when I was a baby." She pointed at the date and handed the photo to Val. "We were on a picnic in the park in St. Martinville. Mommy bought Popeye's fried chicken, and we fed some biscuit crumbs to the ducks."

"Mary, according to that date you would have been five months old. I can't believe that! The child in this picture is already walking. I'm just about fed up with this nonsense. I think you need to go." Val stood up from her chair at the dining table.

"No, please, please. There's more in the letter to translate for you. Listen: 'I chose Dr. Val Smythe to take care of Mary because she's a scientist and can find out what's wrong with my girl. Mary was born a normal baby after only three months in my body, and she grew up too fast.' See, Mommy explains everything in the letter."

"Yes, I get the idea. Your mother was in on this conspiracy too." Val interrupted the reading and began shuffling through the papers Mary had placed on the dining table.

"But I have no family now. Who will take care of me?" Mary began to sob.

David went to Mary's chair and put his arm around her. "We'll figure something out. Don't worry."

"David, she can't live with us. She's obviously lying about her age, and her mother was in on this scheme. For all we know, she might have killed her mother, or the woman she's calling her mother."

Mary suddenly stood, dwarfing Val. "I did not harm Mommy."

The three of them now stood together, silent for a moment.

"OK," Val said. "I didn't mean that. But I can't begin to figure out what she, your mother I mean," looking at Mary, "thought you would get out of this."

"Val, I think we should let Mary stay until we know that answer. There's something about her. Yes, she's big, but she seems young to me, dependent, almost naive. Maybe it's from being sheltered by her mother. Who knows? But I don't think she means us any harm."

Val wasn't sure why, but she also felt herself believing that Mary

CHAPTER 1

didn't mean them any harm. She was also becoming intrigued by the seeming contradiction of Mary's womanly beauty and her childlike gestures. She didn't act her age.

"OK, you can stay, Mary, but just until we find out who you really are."

"Thanks, Mommy Val."

"Mary," David said, "do you need anything from your condo? Toothbrush, perhaps? I'll walk over with you and wait outside."

When Mary and David returned, Val was sitting at her desk in the living room. Their condo was too small for a private office, but they hadn't really needed one. David went to his photography studio five days a week and had no interest in working on shop stuff at home. Instead, he read and gardened. So Val used the one desk to prepare her lectures for her university classes. Although she and David had agreed that as soon as she was tenured, they'd sell the condo and buy something bigger, they hadn't made the time to shop around yet.

"Mary, you can put your things in the guestroom upstairs. If you need help, call to us."

"Thank you, Mommy Val."

When Mary was gone, Val said, "What do you think about her, David?"

"Seems she's scamming us, but... What does she hope to gain?"

"I've wracked my brain trying to figure that out, and something about the story rings true. I think I saw Erika with a smaller redhaired girl after they moved into the condo."

"Are you thinking that child was Mary?"

"Maybe... Then what became of that child, David?"

XXYY

"Today, we begin the topic of polyploidy," Val said to her Evolutionary Biology class. This course was required for biology majors, but not for pre-med, nursing, and education students. So the class was usually small—this term a manageable twenty-five

students. Her General Biology class, which she taught in the spring was required for all biology majors, and could swell to hundreds. With that many students, you didn't teach, you performed. Dorman Hall had theater seating and dimmed lights, so it was easy to get in the mood. At first, she complained to David that she didn't get to know many of her students in a class that size. But then she realized that eventually, if they took her advanced courses, held in smaller rooms, she'd get to know as many of them as she wanted to know.

"Poly means many and ploid refers to sets of chromosomes. So, polyploids have more than two sets of chromosomes per cell. You remember from your freshman biology class that living organisms have either one set or two sets of chromosomes in their cells. Human beings have two sets and are referred to as diploid. The prefix di means two. The two sets carry identical genes, although often different alleles, different forms, of the same genes.

"To refresh your memories, gametes are the haploid ova and sperm. Cells that have one set of chromosomes, only one copy of each gene, are called haploid. Diploid mother cells in the ovaries and testes divide by meiosis to produce haploid gametes. You should be more than familiar with meiosis from General Bio."

Val suddenly recalled the simplified version of meiosis, explained to them at the Solven Clinic. She had listened patiently for David's sake.

To refocus her own attention and hope to recapture theirs, she posed a question. "Gametes fuse together to form a zygote, or fertilized ovum. So, if each gamete has one set of chromosomes and they fuse to form a zygote, how many sets of chromosomes will the zygote have?"

Several hands went up. She quickly pointed to Nabil, a bright Lebanese student who seemed to get along with everyone. His wealthy parents had sent him to the U.S. to protect him from the turmoil in Lebanon.

"Two," Nabil answered.

"That's right. Diploid zygotes, in our human example, implant in the uterine wall where they grow into embryos, and so on." Except when your husband's sperm avoid your ova for some reason, Val was interrupted by her own thoughts. Then she hurried on.

"However, polyploids have more than two sets of chromosomes and result from a mistake, a grand mutation. Most of the time, this mistake is unsuccessful, so the zygote never develops into an embryo, or if it does, the embryo dies at some point. Zygotes with more than two sets of chromosomes are formed when sperm or ovum or both have more than one set of chromosomes."

She wrote on the board.

```
2 sets + 1 set = 3 sets in the zygote
(diploid + haploid = triploid)
2 sets + 2 sets = 4 sets in the zygote
(diploid + diploid = tetraploid)
```

"Cells with three sets of chromosomes are *triploid*, and those with four sets are *tetraploid*. In *Eupatorium*, the group of plants that I've been studying, polyploidy is commonplace. As in this formula, some plants have cells with three, and others plants have cells with four sets of chromosomes, or are triploid and tetraploid, respectively."

She pointed to the board. "I also found that the polyploid races in *Eupatorium* are incapable of reproducing sexually. They produce seeds with cloned embryos inside. New plants growing from these seeds are identical to their parent. In other words, these polyploid plants are parthenogenetic, or apomictic, as it's called in plants."

She noticed some eyes beginning to glaze. "This would be like women having babies spontaneously without sex. Imagine that!"

A male student blurted, "You mean like the virgin birth of Jesus?"

"I don't intend to discuss religion in this class. But I can say that if Jesus were a clone, he would be female," she said. "Let's move on to science, and things we can demonstrate."

Weird human and animal stories always peaked their interest. She continued, "Worms, salamanders, trout, goldfish, mollies, and spiny loach have polyploid races. Polyploidy has never been found in birds or mammals, including human beings. Animals that are polyploid are either sterile, or reproduce by a type of cloning. And it gets stranger.

"For example, polyploids of mole salamanders and black molly fish like the kind sold in pet stores are all female. In order to reproduce they have to steal sperm and use these to trigger egg development. Then they discard the sperm DNA."

She had gotten their attention. Several students stopped taking notes and raised their heads to look at her.

"Polyploidy has its advantages, despite the inability to sexually reproduce. For instance, polyploids are larger, reproduce by cloning at an early age, tolerate colder temperatures, and endure environmental stress." Taller, mature earlier... what had she left out?

A bizarre idea struck her, like a piece of Celotex falling from the ceiling, which was possible in this classroom. Could Mary be polyploid? She's taller than normal and matured early. Was she created in her father's fertility clinic? She had to see her chromosomes and talk to Dr. Solven. Or was she being ridiculous? If she mentioned this to her colleagues, they'd say she'd been running too many miles in the park.

Val became aware of the puzzled looks from the students. How long had she been lost in her own thoughts? She looked at the clock. Twenty minutes of class remained. "This is a good place to stop," she said, disregarding the absurdity of her hypothesis.

She was jumping to conclusions, she thought as she left the classroom. And she was being most unscientific. But her intuition had helped her solve problems before, and she couldn't ignore it. Einstein valued intuition, and Val had memorized his famous quotation: "It is better for people to be like the beasts. They should be more intuitive; they should not be too conscious of what they are doing while they are doing it."

As she rushed from Bodin Hall, she dialed Walt Klein about the "Mary Project." There—she'd already titled the work. How convenient that Walt worked with primate chromosome genetics. His graduate student could do Mary's karyotype if Walt didn't want to. First, however, Val had to convince Walt.

She waited for traffic to stop at the crosswalk on St. James Street and checked her reception bars. Four out of five. Walt answered in his slight German accent. She imagined him picking up his pipe and striking a match. Val rather liked the slight chocolaty scent of

his tobacco. But she wondered how much longer he'd get away with smoking over the loud complaints.

"I quit early, which made them happy," Val answered when Walt asked why she wasn't in class. "I have an idea to talk over with you." Val loved the anticipation of impending discovery, but normally guarded her ideas from colleagues so often motivated by jealous impulses. She knew she was too sensitive, but what could she do? Thank God, Walt was entirely too self-assured to be jealous. He told her he'd be in his office all afternoon working on a paper.

At the elevator of Judice Hall, she hesitated. Usually, for exercise, she climbed the five flights of stairs. After the rain, mud had been tracked onto its floor. Val thought about the old Mississippi River dropping its muddy silt load to build southern Louisiana eons ago. She imagined water rushing from the nozzle of a garden hose turned loose in the yard. The hose waved back and forth like a cobra spewing, like the old river swishing back and forth across the landscape of Louisiana spewing mud.

She hardly remembered walking the empty polished hallway from the elevator. Dropping her briefcase with lecture materials inside her office door, Val hurried to Walt's office and found him scrutinizing rows of numbered pictures of chromosomes with colored bands, neatly arranged by size, from longest to shortest. She didn't recognize the karyotype as human, since the end chromosome was numbered 48.

Walt ran his hand through his curly mop of hair that perfectly matched the red of his short beard. He was as usual in wrinkled corduroy pants and white shirt, with brightly colored tie and leather sandals. Only his tie varied from day to day. Today it was yellow with splash patterns of dark green and brown. His small office contained a disheveled desk, crowded bookcases around the wall, his leather chair, and accompanying guest chair, which Val now occupied. The white board on the open wall showed notes in red and yellow where the chromosomes were projected.

As if describing a miracle happening before his eyes, he said, "Man has 46 chromosomes. But his nearest relatives *Pongo* and *Gorilla* have 48. So in the evolution of humans, two chromosomes were lost. Those chromosomes had to have fused with others. I

want to know where the genes moved." If she didn't stop him, he would go on about his own work the rest of the afternoon and evening.

She interrupted. "Walt, I think I've found a polyploid human being. She's a six-year-old living next door to me. Mary is almost seven feet tall and still growing. She's a perfectly healthy looking human being, not distorted in appearance like a person with a growth disorder. I want you to culture her blood cells for karyotype analysis. I'd do it myself, but I don't have the experience with animal karyotypes that you do."

He was wide-eyed but sat silently. He leaned back in his chair, emphasizing his growing middle, and made a half-effort to relight his pipe. She felt like someone who had admitted to her psychiatrist that she was probably insane and awaited the verdict.

"Walt, please speak up! I know how much this flies in the face of your beliefs. But what else could it be?"

"Val, I know polyploidy is a way of life with you. But humans aren't plants, and even if a polyploid were conceived, it would have aborted. The imbalance of chromosomes and genes would doom normal development. Besides, with multiple sex chromosomes, there's the problem of sexual expression. This woman, I mean girl, must have an undiagnosed metabolic disorder."

"But she's not sick, Walt." Val knew from experience that Walt had to unload his own opinions before considering hers. Eventually, he'd be swayed by his respect for her, even though animal chromosomes were his territory and not hers.

"Humor me, Walt. It won't take you that much time. Even if she's not polyploid, she might have some other chromosomal anomaly that would interest you."

"OK, I'll let you know. I'm busy right now. Maybe my graduate student, Ken, can do the work. Don't worry. I'll look over his shoulder." Walt fiddled with his pipe, finally relighting it.