Pernille Rørth

TUMBIE HILLEH

A Novel About Life in Science



Springer

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ISBN 978-3-319-97363-0 ISBN 978-3-319-97364-7 (eBook) https://doi.org/10.1007/978-3-319-97364-7

Library of Congress Control Number: 2018952465

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Cover illustration: Cover figure by © James Milroy (jamesmilroy.co.uk)

This Springer imprint is published by the registered company Springer Nature Switzerland AG The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Acknowledgements

I would like to thank Halldor Stefansson and Kai Simons for useful discussions on narrative in science. I would also like to thank Christian Caron, my editor, for his time and effort—and Steve, for everything.

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Part I The Novel



Chapter 1

"Stop the torture! Stop the torture!"

There was no avoiding them. He kept his eyes on the placard to the far left as it was bouncing up and down with the rhythm of the chant. It showed a kitten. "I feel pain too!" was written below, incongruously. Just as he got close, the cat-suited person holding the placard spun it around to show the all-too-familiar picture: a terrified cat, its head partially shaved and locked in a steel contraption, electrodes sticking out of the skull. He looked away. Pure reflex. The chant went on.

He finally reached the large glass door and gave it a hard pull. It was locked. He looked over his shoulder. The cat-person turned toward him. The furry suit had a smear of red paint across it, but the color was off. The mask was disturbing, though, expressionless but for the flittering eyes in the dark holes. He tried the other door. Same result. The slightest bit of panic crept in, even though he knew it made no sense. One of the security guards was standing right inside the door and spotted him. He pointed to his chest, no, to his dangling access card. Peter understood. He used his own card to open the door and stepped inside.

"Quite a racket out there." He said to the guard. He couldn't see the nametag.

"Been at it since before I got in." The guard shook his heard. "Sir Gerald has been informed. I expect he'll be calling the police. Get it sorted."

Peter nodded and looked back at the small group of protestors—the cats, the rabbits and even a monkey. From where he was standing now, none of them looked menacing. A couple of the suits were incompletely zipped up and held together by safety pins. He could still hear their chant, but it was muffled. He noticed Carol approaching from the outside. She looked fierce and unstoppable. Huifen was right behind her, looking apprehensive. He held up his access card for Carol to see and pointed to the door. She gave a brisk nod and moved toward it, grabbing Huifen's arm on the way.

What do those idiots think this will accomplish? Peter thought angrily. A few tourists had already started snapping pictures of the spectacle. Yes, Gerald would get it sorted

"Good morning, everyone. Shall we get started?" Gerald entered the conference room with his usual ten-minute delay. "We have quite a bit of ground to cover today and I'm sure everyone is eager to get back to work."

"At least to get away from this steam bath." Hans whispered to Peter. They always sat next to each other at these meetings. With their fair coloring and similar height, people sometimes mistook them for brothers, or at least countrymen. They rarely bothered to correct the mistake. Hans was heavier and had less hair, so Peter's seven extra years were not obvious. Today they sat as far from the sunny windows as they could. The idiosyncrasies of the advanced air-conditioning system in the building had been a popular topic ever since they moved in. Fortunately, most of the thirty-odd people in the room followed the relaxed dress code of academic research. All except Gerald and Bill.

"Will someone open the bloody windows?" Bill growled from the opposite corner. "Please." He added, belatedly. Lucas was up from his seat already. He had come in just before Gerald and had to take a seat on the sunny side. By the time he had opened the second window, it was clear that it would be temporary. The chanting was loud and clear.

"Stop the torture! Stop the torture!"

It sounded like the same six or eight voices as earlier, with a background of general murmuring, possibly an assembled audience, and traffic. Peter wondered if they were still wearing their costumes. Even in the relative cool of the morning, they had looked hot. He leaned forward to liberate his shirt from the back of the chair and added an answer to seven down on the crossword puzzle discreetly inserted in Hans' notebook. Hans made a "not bad" expression.

"How about we get rid of those raucous prats?" Bill continued. "Gerald, have you considered calling the police?" The tone of casual challenge was not unusual. Why he kept at it, Peter could not understand.

"I have discussed the situation with the police," Gerald responded calmly, "with the chair of our board, and with Sue." He nodded in Sue's direction. "We think the best approach is to let them be, for now. At Moyden, they tried a forceful removal. If you remember, the resulting news-clip of a young female protestor splashed with red paint and manhandled by the police drew public sympathy for the protesters, not for the institute. We'd rather not repeat that here."

"But we don't do any of that here—cats, primates." Akira said. "Do we?" Akira was new in Hans' section and had probably never seen the animal facility.

"No, we don't." Carol answered, quickly and firmly. Peter couldn't see her face. She was sitting not far from Gerald, on their side of the table. "But we do have rabbits. My lab has a couple of projects on early development. And there's the in-house antibody production. Luckily, with the new containment system unauthorized access is pretty much impossible. Silly kids. Bleeding hearts, brains on hold."

"In any case," Gerald continued, "if you do pass by these spirited young people when you go out, please be polite. Or say nothing. No arguing, please. No provoking them. They don't seem to have found the parking garage entrance, so use that if you prefer. Now, Lucas, if you could—"he nodded at the two open windows"—and I will try to make this meeting short."

There was a general mumbling of assent as the windows were closed.

"As you all know, the written material for the institute review in November is due by the end of the day today." Gerald continued. "Please hand your complete dossier to Shirley before five p.m., if you haven't done so already: C.V., the write-up of research accomplishments and plans for your group, with three selected reprints."

"Why so far in advance?" Darya said, with some irritation. "I have two papers still under review."

"That's just how it's done. But don't worry—you can update your C.V. later on." Gerald explained how.

Peter smiled to himself. He had already given Darya feedback on her write-up. She had nothing to worry about, whether her latest work was in press or not. But he knew her final version would not be handed in until six p.m., when Shirley packed up for the day. The same for Lucas. Lucas had also asked Carol for feedback, Peter knew. Smart. She understood the mouse aspect better than he did. For both Darya and Lucas, it was their first review. They had a lot to prove.

He took the garage exit on the way out, but returned the usual way from the sandwich shop. Simple force of habit. Once he was close enough to see them, it also seemed silly to change course. Some of the animal suits had been abandoned and half of the masks were off. The chant started up again as he approached. A young man broke from the group and moved rapidly at an angle to Peter, as if determined to intercept him before he reached the building. A girl, or a young woman, noticed the move and followed him. Peter did not change his stride and tried his best to maintain a friendly smile. He knew his height could be intimidating to some and this man was on the slight side. As they got closer, Peter noticed that he was not actually that young, early thirties perhaps. His expression matched the intensity of his approach. The girl following him was twenty or so, about the same height as the man and had blond hair in a ponytail. She walked fast and had almost caught up by the time the man reached Peter. She looked apprehensive.

"We know what you do in there. Torturing innocent animals. You should be ashamed of yourselves."

"We don't—" Peter started, then stopped. He also stopped walking. The man stopped a few feet away, the girl next to him. The man had the look of someone hoping to be provoked. Peter swallowed his words, reset his smile and held out his hand.

"Peter Dahl. I work at the Codon Institute, as you may have guessed. I study memory in fruit flies."

"Fruit flies? What the bleeding ..."

"Tina." The girl interrupted him, and shook Peter's hand. "And this is Alistair." Alistair shook hands as well, stumped for the moment. "We are not protesting science in general," the girl continued rapidly, "but we know that some scientists

at your institute do experiments with rabbits and mice, mistreating them and their babies. It's cruel, inhumane..."

"You deliberately induce pain and suffering, torturing the weak and the vulnerable." Alistair had his voice back and took a step forward. "All in the name of 'research'. Because they are not of the ruling Homo Sapiens species, you accept the unacceptable. Torture. It's the Holocaust all over again."

It was Peter's turn to be momentarily speechless. He had not expected the Holocaust. It was too outrageous. "That's..." For lack of a good answer, he turned and walked briskly to the door, card already in hand. When he looked back, Alistair and Tina were still standing where he had left them. Alistair's expression was triumphant. The girl, Tina, looked puzzled, as if she was trying to work something out. Peter turned his back and headed for the stairs.

"Is this for real?"

Peter was standing behind Mihai's fly-station. The light was on, but no flies were on his pad. Mihai swirled around to face him. He cocked his head with an expression of mild amusement. He often took his time in answering. "The graph you left on my desk." Peter continued, holding it up. "Are you sure you haven't swapped them?"

Mihai smiled. "Of course I haven't. The wild type curve decays as normal. The mutant just does much better."

"Yeah, I see that now. But it almost looks too good to be true." Peter looked at the graph again and tried to hold back a big grin. "So. What's the mutant?"

"I'll let you know when I've outcrossed and retested it."

"Oh, come on..."

Mihai shook his head. His hair was very short, probably shaved. Combined with a body that appeared shaped by serious weightlifting, the gentleness of the face, and indeed of Mihai himself, was unexpected. He was mature for a PhD student, hardworking and ambitious. Today he would not budge.

Peter looked at the piece of paper again. "BD, zero, zero, one, one? Really? And just the one fly?"

"Yes, but he's been mated and there are progeny coming. I've done the PCR, as well. It looks—interesting. But I won't know for sure until I've tested outcrossed offspring." His smile seemed to contradict his statement. "I will also order and test RNAi lines. Then I will tell you which gene it is."

"You can't even give me a hint?"

"Delayed gratification builds character, you know."

Peter looked at Julia, who was sitting at the next fly station over, busy with her own work.

"Don't look at me." She glanced up. "He won't tell me either." She smiled, briefly. She and Mihai got along well.

Peter emitted a low groan and shook his head. This was an exquisite kind of torture. But he would let Mihai tease him and let him savor the result on his own for a while. He had earned it. Peter had given advice and ideas, but Mihai had done all of the hard work. He'd built the tracking apparatus with a fellow student from engineering, designed the "bar-code" system and spent many months in the fly-room screening the large array of mutants. For Mihai, this would be his first big result.

"So a month, two?"

"More. Another three generations, and then the behavioral tests. I need a really long time curve to check their memory properly."

Peter threw up his hands in mock-exasperation.

"Someone seems to need to talk to you." Mihai nodded toward the doorway, where Lucas was waiting, looking anxious.

"I'll be right there, Lucas. Just take a seat in my office."

Peter watched the pink shirt and the longish curly black hair retreat from the door. When he turned back around, Mihai had already picked up a fly vial and turned on the carbon dioxide. Conversation over for now, it seemed. Peter resisted the urge to plant a congratulatory pat on the massive shoulders. He turned to Julia instead.

"Can we talk to tomorrow morning? This afternoon is a bit crazy."

"Sure. Whenever. I'm in early." Julia said, not taking her eyes from the eyepieces. "I don't have much new to show you, though."

"Still, let's have a look, shall we? I'm curious about the override experiment. It looked promising." She didn't turn but a smile appeared on her face. She was just starting out, but he knew she was both smart and eager. She would do well, he thought.

For someone with a deadline in a few hours, Lucas seemed strangely reluctant to finish their conversation. Or maybe not so strange, Peter mused, he probably needed reassurance more than the document needed editing. Peter did the best he could. He was finally rescued by Ilana at the door. She had her laptop and notepad in hand.

"Come in, Ilana, come in." Peter stood as he waved his hands loosely about, introducing. "Lucas, you've met my postdoc Ilana, haven't you?"

"Yes." Lucas got up, but didn't smile or look directly at Ilana. Instead, he headed straight for the door.

A bit rude, Peter thought, but perhaps he was too preoccupied. "My door is always open." He said to the receding pink shirt. "Anytime."

Peter felt a sudden relief that he had suggested for Ilana to collaborate with Carol's lab rather than Lucas'. Lucas probably needed to get more settled before he'd have time for a run-of-the-mill collaboration. Ilana was focused and eager to embrace the mouse model. Luckily, Carol and her postdoc Huifen had volunteered to help. Peter was well aware how important the project was his lab, even if it was unlikely to provide the novelty and excitement that he so loved from other projects.

"I need a data-fix." He said cheerily as Ilana got seated. She looked puzzled, so he added. "I mean, I hope you have some results for us to discuss. I love fresh results." He smiled again, but then let it be. Ilana never joked or laughed, at least not around him. Combined with the straight, black hair, the angular face and dark-rimmed eyes, her somber demeanor suggested a dour seriousness. But Peter felt it was more likely just insecurity. Despite her seniority, she had none of the natural confidence of someone like Mihai. Peter knew he probably couldn't do anything about that.

"I have done the first passive avoidance tests." She answered, her voice now behind him. He had stepped across the room to open the office door that Lucas had closed on his way out. He had never done anything the least bit inappropriate with his female students and postdocs, but they had been told to be careful about closed

doors. "I'm still trying to get the parameters right." She continued. "I just want to be sure..."

Peter sat back down and turned his full attention to the graph displayed on Ilana's laptop. They talked about passive and active avoidance tests and about the logistics of genotypes, age and time courses for well over an hour.

When they were done, Ilana also seemed reluctant to leave the office. Her reason was different from Lucas', though.

"Is it safe to go to the animal facility?" She asked. "With the protestors around? They are a bit scary."

"Don't worry. They can't get inside—and certainly not into the facility. The security system is good." He paused. "But we may have to put up with them for a while." She nodded, but did not look reassured.

"You have a visitor. She's in reception."

"Can you just send her up?" He looked at the time: it was close to five. He had no memory of an appointment, but it wouldn't be the first time he had forgotten.

"No can do. No ID, so I can't issue a pass."

"OK. I'll be right down."

She was alone in the reception area, no Alistair in sight.

"I'm Tina." She reintroduced herself. "We met outside earlier."

"Ye-es?" She had to know that didn't exactly recommend her. "How may I help you?" He continued, his tone clipped.

"After we met, I looked you up. I—I mean we—we understand that you do important work on how the brain works, on memory." Her voice was hesitant. She kept looking down. "And that you don't use—you don't hurt—real animals."

"You could say that. People usually aren't too concerned about us swatting a few flies." She seemed to twitch a bit at this, or maybe that was just his imagination.

"I was wondering—I mean—we were wondering, if you would be willing to give an interview about your work? For our newsletter? News of Eden?" She paused. "Our group is called Eden." She drew a breath. "We would like to show that that there are alternatives to cruelty—I mean—that the three Rs can really work." She finally looked bit more confident.

So this girl knew about Replacement, Reduction and Refinement? Peter thought. Was she the moderate wing of the little group? Well, it was a far cry from invoking the Holocaust. At least she was trying. There was also something in her voice that he recognized. The accent.

"Are you Danish?" He asked, in Danish.

"Yes." She answered, but in English. She looked down again for a moment. Maybe she did not like her accent being detected. "But the newsletter is in English, of course. So I prefer if we speak English."

"Sure," he said, smiling despite himself, "but I'll have to ask our director first." Gerald had a good feel for how best to interact with the public. Peter actually wanted his advice. "Anyway, I don't have time this afternoon."

"Tomorrow. Can I come back tomorrow?"

"Come around three p.m. and we'll see, OK?"

"OK. Thank you."

She seemed oddly relieved, with the delay or with the possibility of success, he could not tell. She added the briefest of smiles and hurried back outside. He stood for a moment, watching her back as she moved toward the remains of the group. The ponytail swung back and forth like a quickened pendulum.

* * *

"I'm out back." Jessie yelled, sounding cheerful.

She must have heard the front door slam shut. The sudden draft when he opened it had taken him by surprise. He was usually home first, not having quite as many last-minute emergencies as she did.

"I'll be right down." He said, loud enough for her to hear. "I just have to wash my face. I'm all..." The last bit was more of a mumble.

With a partially dried face and his shirt flapping, he took the steps to the lower ground two at a time. He passed the dining area, deposited the bags on the kitchen counter and looked into their small courtyard while doing up a couple of his shirt buttons. The rear wall beyond the kitchen area was almost all glass: two large windows and a sliding glass door, which was currently open. Jessie was sitting in her favorite fair-weather spot, the wooden patio swing, facing outwards. The swing was moving gently and the big outdoor fan appeared to be blowing straight at her. Her auburn hair was just long enough to dance in the breeze. She turned her head and greeted him with a generous smile. The smile made her face glow. It never failed to cheer him and to remind him of his luck.

"In the fridge." She said, holding up a glass in one hand. It was a tall glass and had something green in it. Maybe mint leaves and lime with sparkling water, one of their recent favorites. Or, even better, a Mojito. He poured one for himself from the narrow glass beaker in the fridge door and tasted it. Yes, he thought, and smiled, a perfect Mojito. He stepped out onto the flagstone-covered patio. Over the years, they had found plants tolerant of the courtyard's near-constant shade and pampered each with a generous pot. Some moved inside for the winter. The plants covered most of the rear and side walls and gave the place an almost tropical feel.

He walked up behind the now stilled swing and bent down, folding his long arms around her, his cold glass held to one side. She leaned back for a moment, clasped his arms in place and gave them a friendly squeeze. Then she turned her head, lifted up and planted a kiss on his mouth, another on his cheek and ruffled his slightly wet, slightly blond and slightly gray hair. The swing moved below them. He smiled and kissed her back, then unwrapped from the embrace and stepped over to place his face in front of the fan.

"Crazy weather." He said and lowered himself into his wicker chair. It creaked and groaned but did not move. He would never get used to the swing.

"I suppose we shouldn't complain when we finally have a bit of real summer, should we?" Jessie took a sip from her near-empty glass and pushed off to get more movement from the swing. "But it is a bit much. I almost died in the office." She looked very content, nevertheless. "At least we have ceiling fans and our old-fashioned windows can be opened. That helped. The traffic-noise made

conversation almost impossible, though." She shook her head, still smiling. "So how did it go today? Did everyone get their write-ups in on time?"

"The usual last-minute panics, of course. I know Shirley won't send it off until tomorrow or the day after. Gerald always wants to give it a last check. But moving the deadline wouldn't help."

"It's human nature, I suppose." She paused a moment. "You've read the ones from your section, haven't you? Will they do alright?"

"Yes. I'm quite sure they will. Anyway, the panel tends to cut young group leaders some slack."

"As they should."

"As they should. I'm happy I don't have any of the old guys from the Lester Institute in my section. Their science gets reviewed along with everyone else's, even though, well... You know..." He shrugged. She nodded. "Awkward. But they have tenure, so we have to live with it for a few more years." He paused. "Overall, I think the Institute is in very good shape. Gerald is doing a great job."

"Hmm." With a thoughtful expression, she tilted her head, stopped the swing and put a hand on his knee. "You know..." she started, but stopped again when he didn't look up immediately.

"A strange thing happened today." He said, picking up her hand and studying it. "There was a group of protestors at the institute, out front. Animal rights stuff. They were wearing animal suits and masks and waving placards... and chanting... "Stop the torture". It was quite unpleasant."

"The Codon Institute is not an obvious target for that kind of thing, is it? You don't do any of the contentious stuff, do you?"

"No. We don't have any primates, and no cats or dogs."

"I remember a few years ago, when activists were in the news a lot. But I thought they had cracked down hard on them after the harassment campaigns."

"They did. The ones I saw today seem like amateurs by comparison. Luckily, our animal facility is out of sight, in a connected building. Anyway—the strange thing was not so much them being there, but that one of them asked to talk to me. Me, specifically. She says they want to interview me because they like my doing brain research without cruelty to, quote "real animals" unquote.

"That's kind of nice, isn't it? It suggests more awareness of what research is than you normally get from that front."

"Yes, I suppose so. Anyway, this girl turned out to be Danish. Not the rest of the group, I'm pretty sure, just her."

"And you think that's why she asked to talk to you?"

"I don't know. I guess it doesn't really matter. I asked Gerald and he thinks it's a good idea. We should do whatever we can to help resolve it peacefully, he said. Maybe it'll make them go elsewhere. So I'll be giving the interview tomorrow. I hope it doesn't prove to be a mistake."

"How could it be?" She asked but got no response. He seemed far away. Grabbing one of the side poles of the swing, she pulled herself upright. "Refill?" She asked, now standing right in front of him. "There should be another glass in

there. Then we can make the second ice cream for tomorrow. Maybe before we eat? Before we collapse?"

"Right, tomorrow..." His voice trailed away. Finally, he seemed to snap to, drained his glass quickly and handed it to her. "It's great, the Mojito. Exactly what I needed. Oh, and I left the take-out on the counter." He stopped and looked at her face quizzically. "Ice cream?"

"Tomorrow evening. Dinner. Hans and Alessandra, Nigel and Beatrice. We just have to do dessert. I got some berries."

"Oh yes, of course. Remind me, why Nigel and Beatrice? Why not Carol and Wi...—Carol and Not-Bill? They are much more fun."

"We owe Nigel and Beatrice one. And I think William is touring right now." She smiled, a bit mischievously. "We really should stop with the Not-Bill."

"He can take it, I'm sure. After all, he's been married to Carol forever."

"Right. But he'll never bring his violin along if you keep teasing him. I still have this dream of getting a private recital some day."

"Me?" He laughed. "You started it. Not-Will, then Not-Bill. It was definitely you, teasing the stiff Brit."

Jessie smiled and shrugged before turning around to go inside. That was when Peter finally remembered.

"So what was that thing you wanted to tell me about?" He said, raising his voice to be heard. She was in the kitchen already. "Your home-going email sounded tantalizing, but it was very vague."

"I thought it better that way." She said when she returned. "My work email isn't private." She handed him an almost-full glass. "Plus, I wanted to tell you in person." She sat down on the edge of the swing, keeping it steady. Then she put her drink down on the small metal table and folded her hands in front of her knees.

"Tony called." She finally said.

"He called? I thought he was always too busy to call."

"He is. But this was special." She paused. He understood her pauses. She was looking for the best words, for the optimal approach. But she was smiling. "You know about Oak Hill?"

"Sure. The new brain institute he's setting up. It sounds interesting—and very ambitious."

"It's there. Construction has been completed, the labs are almost ready and they are starting to hire."

"They are?" Peter's chair creaked as he straightened up.

"Yes. They are. And you won't believe this." She stopped again. His curiosity made him lean further forward. She picked up one of his hands in both of hers and continued. "He asked me if I might be interested in being deputy director. Deputy director in charge of scientific strategy and communication." She beamed and squeezed his hand hard.

Peter kept his anticipatory smile for a few seconds more. It wavered a bit, but then he brought it back, redoubled.

"That's fantastic. Deputy director. At Oak Hill. Wow. I would have—no, forget that. I'm so proud of you. That's amazing."

"Right," she said, "I know what you were thinking. I'd have thought he would choose an active scientist too, not a mere scientific editor like me." She made a dismissive gesture.

"Editor-in-chief of the most influential journal in our area. No unnecessary modesty here, OK?"

"Well, anyway. I guess he sees my experience as relevant."

"I'd think so. It's an inspired choice, actually. You are well known, well respected, and you know the whole field better than any of us narrow-minded practitioners."

"I suppose..." She smiled and paused. "But that's not main reason, actually. Do you remember this crazy idea I came up with last year? Right after I visited the Franklin Institute?" He shook his head, furrowing his brow. She continued. "It was about a new way of publishing science, based on unique, insightful observations followed by comments. I'm sure I told you about it. I was a bit obsessed with it for a while."

"The journal wasn't interested." He nodded, vaguely remembering how excited she'd been at the time.

"No, they weren't. That's not so surprising, really. The current model works very well for the publishing houses. No need to rock the boat." She paused. "Anyway. I also talked to Tony about the idea back then. We met at a conference in the US not long after my attempt to convince the journal. Apparently, he hasn't forgotten about it. He's considering taking up the idea, establishing it at Oak Hill." Her eyes widened. "Obviously, the actual science being done at the institute will be his major focus. But he has, he says, a broader vision of what Oak Hill should be contributing." She couldn't stop a big grin from appearing.

"Which includes launching a completely new initiative in science publishing." He filled in, dutifully.

"Well, at least trying it out." She nodded. "You remember, part of the uncertainty I had initially was whether there had to be a physical host institution."

"Yes." He didn't really remember the details, but also didn't feel like asking.

"So." She said, with emphasis. "That's why he wants me, specifically, for this job. So we can give the idea a chance. The job would probably involve lots of other things as well. We haven't gone into details about all that."

"That's—that's really—something." He said, quietly.

"Oak Hill would be a perfect fit for you, as well." She added, hurriedly. "The place will be full of people interested in brain function and memory-formation. A state-of-the-art place... New, exciting, special." She drew a deep breath. "If you think you might be willing to...?"

"Of course." He smiled and looked steadily at her slightly flushed face. "It sounds like a fantastic opportunity. You can't not go for it."

"Well, for now, I'm just going to go see the place and talk some more with Tony. He knew that I'd be in the US the next couple of weeks and asked me to come by toward the end of the trip." This time, she took both of Peter's large hands in her own. "So you're sure you're good with this? You would consider moving back to the US?"

Chapter 2

"Yes, of course. We moved here for my job, primarily. Now it's your turn."

"Well, London was a good move for me as well, given the journals that are based here."

"Still. I got exactly what I wanted back then. It's important you get a chance to do exactly what you want. I support you one hundred percent."

"Well." Jessie was smiling so much, it looked like she would burst. "I suppose I'll know more when I've been to visit. But it sounds so. . ."

"Fantastic. It does. Anyway, maybe a move would be good for me. I've been at the Codon for what, eighteen years? It's been great, but... It's a long time. And at fifty-two, I probably only have one serious move left in me. From what I hear, Oak Hill will be a fantastic place. *The* place for brain research."

"It will be, I'm sure."

She kept smiling. Peter liberated his hands and rubbed her knees.

"So did Tony... did he mention me, directly?"

"We didn't get that far. I couldn't..."

"No, of course not." He added quickly. "That would have been premature. We'll know more once you've been for a visit."

"I know Tony really likes your work. He's told me so on several occasions. I mean, didn't he introduce you as "the man who brought genetics..."

"The man who brought the power of genetics to the enigma of memory." He laughed, softly. "Yes, he did. Very flattering. . . At least he didn't call me the father of the field. Then I would have felt really old."

"Tony is older than you are."

"I know—just joking." He got up from the protesting chair and headed for the kitchen. "This calls for bubbles, don't you think?"

Chapter 2

Bat out of Hell gave way to incantations of wasted youth. The relentless beat and the raw energy of his voice helped, but Jessie still felt sluggish. When she got up, at her usual early hour, she had felt ready to tackle the world. Now yesterday's celebratory bottle and the not-so-early night were taking their toll. She looked at the display on the elliptical. Still a ways to go. She had waved at Rissa, also on her usual schedule, ten minutes ago. The thought of telling Rissa her news gave Jessie some extra energy, much needed.

On the screen, four minimally clad and well-oiled bodies gyrated in provocative parallel routines. The mismatch to the music in her ears might be making it worse, but the in-your-face faux sex made her feel uncomfortable. She looked away. Up front, two fully clad women were walking leisurely on the treadmills. They seemed unperturbed. Her gaze moved on to the new regular, whoever she was, always here, and ended on the painfully skinny girl at the end of the row. It was hard to look at her, hard not to. Jessie had felt tempted to talk to her several times. But what could

she say? She knew it wouldn't help. She looked at her display again. Almost done. Five miles on the treadmill, then stretching, then she'd catch up with Rissa.

"He's too good to be true."

Rissa shook her head while taking the first careful sip of her banana smoothie. Jessie had given her the short version of yesterday's events between the showers, the locker room and the juice bar. They always stopped at the bar for a smoothie and a chat. Rissa nodded, smiled at the beach-boy type behind the bar and touched her card to the reader. "And I've still never seen him." She continued. "I'm beginning to think you made him up, this husband of yours."

"For twenty years?" Jessie smiled. "That's one long-lasting fantasy. Anyway, you have met Peter."

"I have?"

"He came to an opening at the gallery a few years ago, when you had just moved to the new space."

"Oh, that one." Rissa lifted an eyebrow.

"I know. You've had more than a few openings. I don't remember which one it was. Or whether he liked it. But you have met him; he *is* real. He's just more supportive than most husbands."

"Well, you've earned it, girl." Rissa flashed a wide smile, her perfect white teeth shining. "Now this," she added, pointing to the yellowish mush with her extra-wide straw, "is the real reason I come here every morning."

Jessie sent her a look.

"OK, so not *every* morning." Rissa said. "Too much socializing in my line of work for that. It's so tiring."

"But I thought you enjoyed that part."

"I do. Of course I do. I'm just getting older—" she widened her deep brown eyes, not yet decorated for the day "—practically middle-aged." She added dramatically.

"That's not a word I would ever associate with you."

"And don't you dare!" Rissa smiled. "The tragedy is, I still haven't managed to make it to the gym as early as you do. Not once. I've never seen the muscle-men you claim are here from the small hours."

"I'm pretty sure they are bouncers, beefing up on their way home from work at the clubs. You could come in with them. Beat me to it."

"I might be able to motivate myself some day, some night—just to see them. I suspect you've made them up as well."

"You give me too much credit." Jessie shook her head. "I suppose you have seen skin-and-bones, though, the scary one. And that new girl."

"I haven't noticed. I have my priorities."

"Always looking..."

"Well, and?" It was a long-standing mystery to Jessie. How could someone like Rissa be single? She was gorgeous, successful and fun to be with. She had originally come over with someone, way back. But he had not stayed. Others had been interested, but none had lasted longer than a few months. The break-ups had been tough. This was how they got to know each other better. Jessie was a good listener. At least Rissa seemed to think so.