

BLOOD SISTERS

Greg Egan

Here's a haunting glimpse of a crowded, high-tech future that has become perhaps a little *too* fond of that dispassionate Long View we hear so much about...

Born in 1961, Greg Egan lives in Australia, and is certainly in the running for the title of Hottest New Writer of the Nineties to date. Although he's been publishing for a year or two already, 1990 was the year when Egan suddenly seemed to be turning up *everywhere* with high-quality stories, and he continued the streak in 1991. He is a frequent contributor to *Interzone* and *Isaac Asimov's Science Fiction Magazine*, and has made sales as well to *Pulphouse*, *Analog*, *Aurealis*, and *Eidolon*. Several of his stories have appeared in various "Best of the Year" series, including this one; his story "The Caress" and his story "Learning To Be Me" were in our Eighth Annual Collection, and he was good enough to place another two stories in *this* year's collection as well. He just sold his first novel, *Quarantine*, to Legend as part of a package deal that includes a second novel and a collection of his short fiction—a pretty high-powered deal for such a young writer. My guess is that you will be seeing a *lot* more of Egan as the decade progresses.

When we were nine years old, Paula decided we should prick our thumbs, and let our blood flow into each other's veins.

I was scornful. "Why bother? Our blood's already exactly the same. We're *already* blood sisters."

She was unfazed. "I know that. That's not the point. It's the ritual that counts."

We did it in our bedroom, at midnight, by the light of a single candle. She sterilized the needle in the candle flame, then wiped it clean of soot

with a tissue and saliva.

When we'd pressed the tiny, sticky wounds together, and recited some ridiculous oath from a third-rate children's novel, Paula blew out the candle. While my eyes were still adjusting to the dark, she added a whispered coda of her own: "Now we'll dream the same dreams, and share the same lovers, and die at the very same hour."

I tried to say, indignantly, "That's just not true!" but the darkness and the scent of the dead flame made the protest stick in my throat, and her words remained unchallenged.

* * *

As Dr Packard spoke, I folded the pathology report, into halves, into quarters, obsessively aligning the edges. It was far too thick for me to make a neat job of it; from the micrographs of the misshapen lymphocytes proliferating in my bone marrow, to the print-out of portions of the RNA sequence of the virus that had triggered the disease, thirty-two pages in all.

In contrast, the prescription, still sitting on the desk in front of me, seemed ludicrously flimsy and insubstantial. No match at all. The traditional— indecipherable—polysyllabic scrawl it bore was nothing but a decoration; the drug's name was reliably encrypted in the barcode below. There was no question of receiving the wrong medication by mistake. The question was, *would the right one help me?*

"Is that clear? Ms Rees? Is there anything you don't understand?"

I struggled to focus my thoughts, pressing hard on an intractable crease with my thumb. She'd explained the situation frankly, without resorting to jargon or euphemism, but I still had the feeling that I was missing something crucial. It seemed like every sentence she'd spoken had started one of two ways: "The virus..." or "The drug..."

"Is there anything I can do? Myself? To... improve the odds?"

She hesitated, but not for long. "No, not really. You're in excellent health, otherwise. Stay that way." She began to rise from her desk to dismiss me, and I began to panic.

"But, there must be *something*." I gripped the arms of my chair, as if afraid of being dislodged by force. Maybe she'd misunderstood me, maybe I hadn't made myself clear. "Should I... stop eating certain foods? Get

more exercise? Get more sleep? I mean, there has to be *something* that will make a difference. And I'll do it, whatever it is. Please, just *tell me*—" My voice almost cracked, and I looked away, embarrassed. *Don't ever start ranting like that again. Not ever.*

"Ms Rees, I'm sorry. I know how you must be feeling. But the Monte Carlo diseases are all like this. In fact, you're exceptionally lucky; the WHO computer found eighty thousand people, worldwide, infected with a similar strain. That's not enough of a market to support any hard-core research, but enough to have persuaded the pharmaceutical companies to rummage through their databases for something that might do the trick. A lot of people are on their own, infected with viruses that are virtually unique. Imagine how much useful information the health profession can give *them*." I finally looked up; the expression on her face was one of sympathy, tempered by impatience.

I declined the invitation to feel ashamed of my ingratitude. I'd made a fool of myself, but I still had a right to ask the question. "I understand all that. I just thought there might be something I could do. You say this drug might work, or it might not. If I could contribute, *myself*, to fighting this disease, I'd feel..."

What? More like a human being, and less like a test tube—a passive container in which the wonder drug and the wonder virus would fight it out between themselves. "... better."

She nodded. "I know, but trust me, nothing you can do would make the slightest difference. Just look after yourself as you normally would. Don't catch pneumonia. Don't gain or lose ten kilos. Don't do *anything* out of the ordinary. Millions of people must have been exposed to this virus, but the reason you're sick, and they're not, is *a purely genetic matter*. The cure will be just the same. The biochemistry that determines whether or not the drug will work for you isn't going to change if you start taking vitamin pills, or stop eating junk food—and I should warn you that going on one of those 'miracle-cure' diets will simply make you sick; the charlatans selling them ought to be in prison."

I nodded fervent agreement to *that*, and felt myself flush with anger. Fraudulent cures had long been my *bête noir*—although now, for the first time, I could almost understand why other Monte Carlo victims paid good money for such things: crackpot diets, meditation schemes, aroma therapy, self-hypnosis tapes, you name it. The people who peddled that garbage were the worst kind of cynical parasites, and I'd always thought of their customers as being either congenitally gullible, or desperate to the point of abandoning their wits, but there was more to it than that. When

your life is at stake, you want to fight for it—with every ounce of your strength, with every cent you can borrow, with every waking moment. Taking one capsule, three times a day, just isn't *hard enough*—whereas the schemes of the most perceptive con-men were sufficiently arduous (or sufficiently expensive) to make the victims feel that they were engaged in the kind of struggle that the prospect of death requires.

This moment of shared anger cleared the air completely. We were on the same side, after all; I'd been acting like a child. I thanked Dr Packard for her time, picked up the prescription, and left.

On my way to the pharmacy, though, I found myself almost wishing that she'd lied to me—that she'd told me my chances would be vastly improved if I ran ten kilometers a day and ate raw seaweed with every meal—but then I angrily recoiled, thinking: Would I really want to be deceived “for my own good”? If it's down to my DNA, it's down to my DNA, and I ought to expect to be told that simple truth, however unpalatable I find it—and I ought to be grateful that the medical profession has abandoned its old patronizing, paternalistic ways.

I was twelve years old when the world learnt about the Monte Carlo project.

A team of biological warfare researchers (located just a stone's throw from Las Vegas—alas, the one in New Mexico, not the one in Nevada) had decided that *designing* viruses was just too much hard work (especially when the Star Wars boys kept hogging the supercomputers). Why waste hundreds of PhD-years—why expend any intellectual effort whatsoever—when the time-honoured partnership of blind mutation and natural selection was all that was required?

Speeded up substantially, of course.

They'd developed a three-part system: a bacterium, a virus, and a line of modified human lymphocytes. A stable portion of the viral genome allowed it to reproduce in the bacterium, while rapid mutation of the rest of the virus was achieved by neatly corrupting the transcription error repair enzymes. The lymphocytes had been altered to vastly amplify the reproductive success of any mutant which managed to infect them, causing it to out-breed those which were limited to using the bacterium.

The theory was, they'd set up a few trillion copies of this system, like row after row of little biological poker machines, spinning away in their underground lab, and just wait to harvest the jackpots.

The theory also included the best containment facilities in the world, and five hundred and twenty people all sticking scrupulously to official procedure, day after day, month after month, without a moment of carelessness, laziness or forgetfulness. Apparently, nobody bothered to compute the probability of *that*.

The bacterium was supposed to be unable to survive outside artificially beneficent laboratory conditions, but a mutation of the virus came to its aid, filling in for the genes that had been snipped out to make it vulnerable.

They wasted too much time using ineffectual chemicals before steeling themselves to nuke the site. By then, the winds had already made any human action—short of melting half a dozen states, not an option in an election year—irrelevant.

The first rumours proclaimed that we'd all be dead within a week. I can clearly recall the mayhem, the looting, the suicides (second-hand on the TV screen; our own neighbourhood remained relatively tranquil—or numb). States of emergency were declared around the world. Planes were turned away from airports, ships (which had left their home ports months before the leak) were burnt in the docks. Harsh laws were rushed in everywhere, to protect public order and public health.

Paula and I got to stay home from school for a month. I offered to teach her programming; she wasn't interested. She wanted to go swimming, but the beaches and pools were all closed. That was the summer that I finally managed to hack into a Pentagon computer—just an office supplies purchasing system, but Paula was suitably impressed (and neither of us had ever guessed that paperclips were *that* expensive).

We didn't believe we were going to die—at least, not within a week—and we were right. When the hysteria died down, it soon became apparent that only the virus and the bacterium had escaped, and without the modified lymphocytes to fine-tune the selection process, the virus had mutated away from the strain which had caused the initial deaths.

However, the cosy symbiotic pair is now found all over the world, endlessly churning out new mutations. Only a tiny fraction of the strains produced are infectious in humans, and only a fraction of those are potentially fatal.

A mere hundred or so a year.

On the train home, the sun seemed to be in my eyes no matter which way I

turned—somehow, every surface in the carriage caught its reflection. The glare made a headache which had been steadily growing all afternoon almost unbearable, so I covered my eyes with my forearm and faced the floor. With my other hand, I clutched the brown paper bag that held the small glass vial of red-and-black capsules that would or wouldn't save my life.

Cancer. Viral leukaemia. I pulled the creased pathology report from my pocket, and flipped through it one more time. The last page hadn't magically changed into a happy ending—an oncovirology expert system's declaration of a sure-fire cure. The last page was just the bill for all the tests. Twenty-seven thousand dollars.

At home, I sat and stared at my work station.

Two months before, when a routine quarterly examination (required by my health insurance company, ever eager to dump the unprofitable sick) had revealed the first signs of trouble, I'd sworn to myself that I'd keep on working, keep on living exactly as if nothing had changed. The idea of indulging in a credit spree, or a world trip, or some kind of self-destructive binge, held no attraction for me at all. Any such final fling would be an admission of defeat. I'd go on a fucking world trip to celebrate my cure, and not before.

I had plenty of contract work stacked up, and that pathology bill was already accruing interest. Yet for all that I needed the distraction—for all that I needed *the money*—I sat there for three whole hours, and did nothing but brood about my fate. Sharing it with eighty thousand strangers scattered about the world was no great comfort.

Then it finally struck me. *Paula.* If I was vulnerable *for genetic reasons, then so was she.*

For identical twins, in the end we hadn't done too bad a job of pursuing separate lives. She had left home at sixteen, to tour central Africa, filming the wildlife, and—at considerably greater risk—the poachers. Then she'd gone to the Amazon, and become caught up in the land rights struggle there. After that, it was a bit of a blur; she'd always tried to keep me up to date with her exploits, but she moved too fast for my sluggish mental picture of her to follow.

I'd never left the country; I hadn't even moved house in a decade.

She came home only now and then, on her way between continents, but we'd stayed in touch electronically, circumstances permitting. (They take away your SatPhone in Bolivian prisons.)

The telecommunications multinationals all offer their own expensive services for contacting someone when you don't know in advance what country they're in. The advertising suggests that it's an immensely difficult task; the fact is, every SatPhone's location is listed in a central database, which is kept up to date by pooling information from all the regional satellites. Since I happened to have "acquired" the access codes to consult that database, I could phone Paula directly, wherever she was, without paying the ludicrous surcharge. It was more a matter of nostalgia than miserliness; this minuscule bit of hacking was a token gesture, proof that in spite of impending middle age, I wasn't yet terminally law-abiding, conservative and dull.

I'd automated the whole procedure long ago. The database said she was in Gabon; my program calculated local time, judged ten twenty-three p. m. to be civilized enough, and made the call. Seconds later, she was on the screen.

"Karen! How are you? You look like shit. I thought you were going to call last week—what happened?"

The image was perfectly clear, the sound clean and undistorted (fibre-optic cables might be scarce in central Africa, but geosynchronous satellites are directly overhead). As soon as I set eyes on her, I felt sure she didn't have the virus. She was right—I looked half-dead—whereas she was as animated as ever. Half a lifetime spent outdoors meant her skin had aged much faster than mine—but there was always a glow of energy, of purpose, about her that more than compensated.

She was close to the lens, so I couldn't see much of the background, but it looked like a fibreglass hut, lit by a couple of hurricane lamps; a step up from the usual tent.

"I'm sorry, I didn't get around to it. *Gabon*? Weren't you in Ecuador—?"

"Yes, but I met Mohammed. He's a botanist. From Indonesia. Actually, we met in Bogota; he was on his way to a conference in Mexico—"

"But—"

"Why Gabon? This is where he was going next, that's all. There's a fungus here, attacking the crops, and I couldn't resist coming along..."

I nodded, bemused, through ten minutes of convoluted explanations, not paying too much attention; in three months' time it would all be ancient history. Paula survived as a freelance pop-science journalist, darting around the globe writing articles for magazines, and scripts for TV programmes, on the latest ecological troublespots. To be honest, I had

severe doubts that this kind of predigested eco-babble did the planet any good, but it certainly made her happy. I envied her that. I could not have lived her life—in no sense was she the woman I “might have been”—but nonetheless it hurt me, at times, to see in her eyes the kind of sheer excitement that I hadn’t felt, myself, for a decade.

My mind wandered while she spoke. Suddenly, she was saying, “Karen? Are you going to tell me what’s wrong?”

I hesitated. I had originally planned to tell no one, not even her, and now my reason for calling her seemed absurd—*she* couldn’t have leukaemia, it was unthinkable. Then, without even realizing that I’d made the decision, I found myself recounting everything in a dull, flat voice. I watched with a strange feeling of detachment the changing expression on her face; shock, pity, then a burst of fear when she realized—far sooner than I would have done—exactly what my predicament meant for her.

What followed was even more awkward and painful than I could have imagined. Her concern for me was genuine—but she would not have been human if the uncertainty of her own position had not begun to prey on her at once, and knowing *that* made all her fussing seem contrived and false.

“Do you have a good doctor? Someone you can trust?”

I nodded.

“Do you have someone to look after you? Do you want me to come home?”

I shook my head, irritated. “No, I’m all right. I’m being looked after, I’m being *treated*. But you have to get tested as soon as possible.” I glared at her, exasperated. I no longer believed that she could have the virus, but I wanted to stress the fact that I’d called her to warn her, not to fish for sympathy— and somehow, that finally struck home. She said, quietly, “I’ll get tested today. I’ll go straight into town. Okay?”

I nodded. I felt exhausted, but relieved; for a moment, all the awkwardness between us melted away.

“You’ll let me know the results?”

She rolled her eyes. “Of course I will.”

I nodded again. “Okay.”

“Karen. Be careful. Look after yourself.”

“I will. You too.” I hit the ESCAPE key.

Half an hour later, I took the first of the capsules, and climbed into bed. A few minutes later, a bitter taste crept up into my throat.

Telling Paula was essential. Telling Martin was insane. I'd only known him six months, but I should have guessed exactly how he'd take it.

"Move in with me. I'll look after you."

"I don't need to be looked after."

He hesitated, but only slightly. "Marry me."

"Marry you? Why? Do you think I have some desperate need to be married before I die?"

He scowled. "Don't talk like that. I *love* you. Don't you understand that?"

I laughed. "I don't *mind* being pitied—people always say it's degrading, but I think it's a perfectly normal response—but I don't want to have to live with it twenty-four hours a day." I kissed him, but he kept on scowling. At least I'd waited until after we'd had sex before breaking the news; if not, he probably would have treated me like porcelain.

He turned to face me. "Why are you being so hard on yourself? What are you trying to prove? That you're super-human? That you don't need anyone?"

"Listen. You've known from the very start that I need independence and privacy. What do you want me to say? That I'm terrified? Okay. I am. But I'm still the same person. I still need the same things." I slid one hand across his chest, and said as gently as I could, "So thanks for the offer, but no thanks."

"I don't mean very much to you, do I?"

I groaned, and pulled a pillow over my face. I thought: *Wake me when you're ready to fuck me again. Does that answer your question?* I didn't say it out loud, though.

A week later, Paula phoned me. She had the virus. Her white cell count was up, her red cell count was down—the numbers she quoted sounded just like my own from the month before. They'd even put her on the very same drug. That was hardly surprising, but it gave me an unpleasant, claustrophobic feeling, when I thought about what it meant: *We would both live, or we would both die.*

In the days that followed, this realization began to obsess me. It was like voodoo, like some curse out of a fairy tale—or the fulfilment of the words she'd uttered, the night we became "blood sisters." We had never dreamed

the same dreams, we'd certainly never loved the same men, but now... it was as if we were being punished, for failing to respect the forces that bound us together.

Part of me *knew* this was bullshit. Forces *that bound us together!* It was mental static, the product of stress, nothing more. The truth, though, was just as oppressive: the biochemical machinery would grind out its identical verdict on both of us, for all the thousands of kilometres between us, for all that we had forged separate lives in defiance of our genetic unity.

I tried to bury myself in my work. To some degree, I succeeded—if the grey stupor produced by eighteen-hour days in front of a terminal could really be considered a success.

I began to avoid Martin; his puppy-dog concern was just too much to bear. Perhaps he meant well, but I didn't have the energy to justify myself to him, over and over again. Perversely, at the very same time, I missed our arguments terribly; resisting his excessive mothering had at least made me feel strong, if only in contrast to the helplessness he seemed to expect of me.

I phoned Paula every week at first, but then gradually less and less often. We ought to have been ideal confidantes; in fact, nothing could have been less true. Our conversations were redundant; we already knew what the other was thinking, far too well. There was no sense of unburdening, just a suffocating, monotonous feeling of recognition. We took to trying to outdo each other in affecting a veneer of optimism, but it was a depressingly transparent effort. Eventually, I thought when—if—I get the good news, I'll call her, until then, what's the point? Apparently, she came to the same conclusion.

All through childhood, we were forced together. We loved each other, I suppose, but... we were always in the same classes at school, bought the same clothes, given the same Christmas and birthday presents—and we were always sick at the same time, with the same ailment, for the same reason.

When she left home, I was envious, and horribly lonely for a while, but then I felt a surge of joy, of *liberation*, because I knew that I had no real wish to follow her, and I knew that from then on, our lives could only grow further apart.

Now, it seemed that had all been an illusion. We would live or die together, and all our efforts to break the bonds had been in vain.

About four months after the start of treatment, my blood counts began to turn around. I was more terrified than ever of my hopes being dashed, and I spent all my time battling to keep myself from premature optimism. I didn't dare ring Paula; I could think of nothing worse than leading her to think that we were cured, and then turning out to have been mistaken. Even when Dr Packard—cautiously, almost begrudgingly—admitted that things were looking up, I told myself that she might have relented from her policy of unflinching honesty and decided to offer me some palliative lies.

One morning I woke, not yet convinced that I was cured, but sick of feeling I had to drown myself in gloom for fear of being disappointed. If I wanted absolute certainty, I'd be miserable all my life; a relapse would always be possible, or a *whole new virus* could come along.

It was a cold, dark morning, pouring with rain outside, but as I climbed, shivering, out of bed, I felt more cheerful than I had since the whole thing had begun.

There was a message in my work station mailbox, tagged CONFIDENTIAL. It took me thirty seconds to recall the password I needed, and all the while my shivering grew worse.

The message was from the Chief Administrator of the Libreville People's Hospital, offering his or her condolences on the death of my sister, and requesting instructions for the disposal of the body.

I don't know what I felt first. Disbelief. Guilt. Confusion. Fear. How could she have died, when I was so close to recovery? How could she have died without a word to me? *How could I have let her die alone?* I walked away from the terminal, and slumped against the cold brick wall.

The worst of it was, I suddenly *knew* why she'd stayed silent. She must have thought that I was dying, too, and that was the one thing we'd both feared most of all: dying together. In spite of everything, dying together, as if we were one.

How could the drug have failed her, and worked for me? *Had it worked for me?* For a moment of sheer paranoia, I wondered if the hospital had been faking my test results, if in fact I was on the verge of death, myself. That was ludicrous, though.

Why, then, had Paula died? There was only one possible answer. She should have come home—I should have *made her* come home. How could I have let her stay there, in a tropical, Third World country, with her immune system weakened, living in a fibreglass hut, without proper sanitation, probably malnourished? I should have sent her the money, I

should have sent her the ticket, I should have flown out there in person and dragged her back home.

Instead, I'd kept her at a distance. Afraid of us dying together, afraid of the curse of our sameness, I'd let her die alone.

I tried to cry, but something stopped me. I sat in the kitchen, sobbing drily. I was worthless. I'd killed her with my superstition and cowardice. I had no right to be alive.

I spent the next fortnight grappling with the legal and administrative complexities of death in a foreign land. Paula's will requested cremation, but said nothing about where it was to take place, so I arranged for her body and belongings to be flown home. The service was all but deserted; our parents had died a decade before, in a car crash, and although Paula had had friends all over the world, few were able to make the trip.

Martin came, though. When he put an arm around me, I turned and whispered to him angrily, "You didn't even know her. What the hell are you doing here?" He stared at me for a moment, hurt and baffled, then walked off without a word.

I can't pretend I wasn't grateful, when Packard announced that I was cured, but my failure to rejoice out loud must have puzzled even her. I might have told her about Paula, but I didn't want to be fed cheap clichés about how irrational it was of me to feel guilty for surviving.

She was dead. I was growing stronger by the day; often sick with guilt and depression, but more often simply numb. That might easily have been the end of it.

Following the instructions in the will, I sent most of her belongings—notebooks, disks, audio and video tapes—to her agent, to be passed on to the appropriate editors and producers, to whom some of it might be of use. All that remained was clothing, a minute quantity of jewellery and cosmetics, and a handful of odds and ends. Including a small glass vial of red-and-black capsules.

I don't know what possessed me to take one of the capsules. I had half a dozen left of my own, and Packard had shrugged when I'd asked if I should finish them, and said that it couldn't do me any harm.

There was no aftertaste. Every time I'd swallowed my own, within minutes there'd been a bitter aftertaste.

I broke open a second capsule and put some of the white powder on my tongue. It was entirely without flavour. I ran and grabbed my own supply,

and sampled one the same way; it tasted so vile it made my eyes water.

I tried, very hard, not to leap to any conclusions. I knew perfectly well that pharmaceuticals were often mixed with inert substances, and perhaps not necessarily the same ones all the time—but why would something *bitter* be used for that purpose? The taste had to come from the drug itself. The two vials bore the same manufacturer's name and logo. The same brand name. The same generic name. The same formal chemical name for the active ingredient. The same product code, down to the very last digit. Only the batch numbers were different.

The first explanation that came to mind was corruption. Although I couldn't recall the details, I was sure that I'd read about dozens of cases of officials in the health care systems of developing countries diverting pharmaceuticals for resale on the black market. What better way to cover up such a theft than to replace the stolen product with something else—something cheap, harmless, and absolutely useless? The gelatin capsules themselves bore nothing but the manufacturer's logo, and since the company probably made at least a thousand different drugs, it would not have been too hard to find something cheaper, with the same size and colouration.

I had no idea what to do with this theory. Anonymous bureaucrats in a distant country had killed my sister, but the prospect of finding out who they were, let alone seeing them brought to justice, were infinitesimally small. Even if I'd had real, damning evidence, what was the most I could hope for? A meekly phrased protest from one diplomat to another.

I had one of Paula's capsules analysed. It cost me a fortune, but I was already so deeply in debt that I didn't much care.

It was full of a mixture of soluble inorganic compounds. There was no trace of the substance described on the label, nor of anything else with the slightest biological activity. It wasn't a cheap substitute drug, chosen at random.

It was a placebo.

I stood with the print-out in my hand for several minutes, trying to come to terms with what it meant. Simple greed I could have understood, but there was an utterly inhuman coldness here that I couldn't bring myself to swallow. Someone must have made an honest mistake. Nobody could be so callous.

Then Packard's words came back to me. "Just look after yourself as you normally would. Don't do *anything* out of the ordinary."

Oh no, *Doctor*. Of course not, *Doctor*. Wouldn't want to go spoiling the experiment with any messy, extraneous, uncontrolled factors...

I contacted an investigative journalist, one of the best in the country. I arranged a meeting in a small café on the edge of town.

I drove out there—terrified, angry, triumphant—thinking I had the scoop of the decade, thinking I had dynamite, thinking I was Meryl Streep playing Karen Silkwood. I was dizzy with sweet thoughts of revenge. Heads were going to roll.

Nobody tried to run me off the road. The cafe was deserted, and the waiter barely listened to our orders, let alone our conversation.

The journalist was very kind. She calmly explained the facts of life.

In the aftermath of the Monte Carlo disaster, a lot of legislation had been passed to help deal with the emergency—and a lot of legislation had been repealed. As a matter of urgency, new drugs to treat the new diseases had to be developed and assessed, and the best way to ensure that was to remove the cumbersome regulations that had made clinical trials so difficult and expensive.

In the old “double-blind” trials, neither the patients nor the investigators knew who was getting the drug and who was getting a placebo; the information was kept secret by a third party (or a computer). Any improvement observed in the patients who were given the placebo could then be taken into account, and the drug's true efficacy measured.

There were two small problems with this traditional approach. Firstly, telling a patient that there's only a fifty-fifty chance that they've been given a potentially life-saving drug subjects them to a lot of stress. Of course, the treatment and control groups were affected equally, but in terms of predicting what would happen when the drug was finally put out on the market, it introduced a lot of noise into the data. Which side-effects were real, and which were artifacts of the patients' uncertainty?

Secondly—and more seriously—it had become increasingly difficult to find people willing to volunteer for placebo trials. When you're dying, you don't give a shit about the scientific method. You want the maximum possible chance of surviving. Untested drugs will do, if there is no known, certain cure—but why accept a further *halving* of the odds, to satisfy some technocrat's obsession with details?

Of course, in the good old days the medical profession could lay down

the law to the unwashed masses: *Take part in this double-blind trial, or crawl away and die.* AIDS had changed all that, with black markets for the latest untried cures, straight from the labs to the streets, and intense politicization of the issues.

The solution to both flaws was obvious.

You lie to the patients.

No bill had been passed to explicitly declare that “triple-blind” trials were legal. If it had, people might have noticed, and made a fuss. Instead, as part of the “reforms” and “rationalization” that came in the wake of the disaster, all the laws that might have made them illegal had been removed or watered down. At least, it looked that way—no court had yet been given the opportunity to pass judgement.

“How could any doctor *do that*? Lie like that! How could they justify it, even to themselves?”

She shrugged. “How did they ever justify double-blind trials? A good medical researcher has to care more about the quality of the data than about any one person’s life. And if a double-blind trial is good, a triple-blind trial is better. The data is guaranteed to be better, you can see that, can’t you? And the more accurately a drug can be assessed, well, perhaps in the long run, the more lives can be saved.”

“Oh, *crap!* The placebo effect isn’t *that* powerful. It just isn’t that important! Who cares if it’s not precisely taken into account? Anyway, two potential cures could still be compared, one treatment against another. That would tell you which drug would save the most lives, without any need for placebos—”

“That is done sometimes, although the more prestigious journals look down on those studies; they’re less likely to be published—”

I stared at her. “How can you know all this and do nothing? The media could blow it wide open! If you let people know what’s going on...”

She smiled thinly. “I *could* publicize the observation that these practices are now, theoretically, legal. Other people have done that, and it doesn’t exactly make headlines. But if I printed any *specific* facts about an actual triple-blind trial, I’d face a half-million-dollar fine, and twenty-five years in prison, for endangering public health. Not to mention what they’d do to my publisher. All the ‘emergency’ laws brought in to deal with the Monte Carlo leak are still active.”

“But that was twenty years ago!”

She drained her coffee and rose. “Don’t you recall what the experts said

at the time?”

“No.”

“The effects will be with us for generations.”

It took me four months to penetrate the drug manufacturer’s network.

I eavesdropped on the data flow of several company executives who chose to work from home. It didn’t take long to identify the least computer-literate. A real bumbling fool, who used ten-thousand-dollar spreadsheet software to do what the average five-year-old could have done without fingers and toes. I watched his clumsy responses when the spreadsheet package gave him error messages. He was a gift from heaven; he simply didn’t have a clue.

And, best of all, he was forever running a tediously unimaginative pornographic video game.

If the computer said “Jump!” he’d say “Promise not to tell?”

I spent a fortnight minimizing what he had to do; it started out at seventy keystrokes, but I finally got it down to twenty-three.

I waited until his screen was at its most compromising, then I suspended his connection to the network, and took its place myself.

FATAL SYSTEM ERROR! TYPE THE FOLLOWING TO RECOVER:

He botched it the first time. I rang alarm bells, and repeated the request. The second time, he got it right.

The first multi-key combination I had him strike took the work station right out of its operating system into its processor’s microcode debugging routine. The hexadecimal that followed, gibberish to him, was a tiny program to dump all of the work station’s memory down the communications line, right into my lap.

If he told anyone with any sense what had happened, suspicion would be aroused at once—but would he risk being asked to explain just what he was running when the “bug” occurred? I doubted it.

I already had his passwords. Included in the work station’s memory was an algorithm which told me precisely how to respond to the network’s security challenges. I was in.

The rest of their defences were trivial, at least so far as my aims were concerned. Data that might have been useful to their competitors was

well-shielded, but I wasn't interested in stealing the secrets of their latest haemorrhoid cure.

I could have done a lot of damage. Arranged for their backups to be filled with garbage. Arranged for the gradual deviation of their accounts from reality, until reality suddenly intruded in the form of bankruptcy—or charges of tax fraud. I considered a thousand possibilities, from the crudest annihilation of data to the slowest, most insidious forms of corruption.

In the end, though, I restrained myself. I knew the fight would soon become a political one, and any act of petty vengeance on my part would be sure to be dredged up and used to discredit me, to undermine my cause.

So I did only what was absolutely necessary.

I located the files containing the names and addresses of everyone who had been unknowingly participating in triple-blind trials of the company's products. I arranged for them all to be notified of what had been done to them. There were over two hundred thousand people, spread all around the world—but I found a swollen executive slush fund which easily covered the communications bill.

Soon, the whole world would know of our anger, would share in our outrage and grief. Half of us were sick or dying, though, and before the slightest whisper of protest was heard, my first objective had to be to save whoever I could.

I found the program that allocated medication or placebo. The program that had killed Paula, and thousands of others, for the sake of sound experimental technique.

I altered it. A very small change. I added one more lie.

All the reports it generated would continue to assert that half the patients involved in clinical trials were being given the placebo. Dozens of exhaustive, impressive files would continue to be created, containing data entirely consistent with this lie. Only one small file, never read by humans, would be different. The file controlling the assembly line robots would instruct them to put medication in every vial of every batch.

From triple-blind to quadruple-blind. One more lie, to cancel out the others, until the time for deception was finally over.

Martin came to see me.

“I heard about what you’re doing. T.I.M. Truth in Medicine.” He pulled a newspaper clipping from his pocket. “ ‘A vigorous new organization dedicated to the eradication of quackery, fraud and deception in both alternative and conventional medicine.’ Sounds like a great idea.”

“Thanks.”

He hesitated. “I heard you were looking for a few more volunteers. To help around the office.”

“That’s right.”

“I could manage four hours a week.”

I laughed. “Oh, could you really? Well, thanks very much, but I think we’ll cope without you.”

For a moment, I thought he was going to walk out, but then he said, not so much hurt as simply baffled, “Do you want volunteers, or not?”

“Yes, but—” *But what?* If he could swallow enough pride to offer, I could swallow enough pride to accept.

I signed him up for Wednesday afternoons.

I have nightmares about Paula, now and then. I wake smelling the ghost of a candle flame, certain that she’s standing in the dark beside my pillow, a solemn-eyed nine-year-old child again, mesmerized by our strange condition.

That child can’t haunt me, though. She never died. She grew up, and grew apart from me, and she fought for our separateness harder than I ever did. What if we had “died at the very same hour”? It would have signified nothing, changed nothing. Nothing could have reached back and robbed us of our separate lives, our separate achievements and failures.

I realize, now, that the blood oath that seemed so ominous to me was nothing but a joke to Paula, her way of *mocking* the very idea that our fates could be entwined. How could I have taken so long to see that?

It shouldn’t surprise me, though. The truth—and the measure of her triumph—is that I never really knew her.