

The Giving Plague

David Brin, 1987

1.

You think you're going to get me, don't you? Well, you've got another think coming, 'cause I'm ready for you.

That's why there's a forged a card in my wallet saying my blood group is AB negative, and a MedicAlert tag warning that I'm allergic to penicillin, aspirin, and phenylalanine. Another one states that I'm a practicing, devout Christian Scientist. All these tricks ought to slow you down when the time comes, as it's sure to, sometime soon.

Even if it makes the difference between living and dying, there's just no way I'll let anyone stick a transfusion needle into my arm. Never. Not with the blood supply in the state it's in.

And anyway, I've got antibodies. So you just stay the hell away from me, ALAS. I won't be your patsy. I won't be your vector.

I know your weaknesses, you see. You're a fragile, if subtle devil. Unlike TARP, you can't bear exposure to air or heat or cold or acid or alkali. Blood to blood, that's your only route. And what need had you of any other? You thought you'd evolved the perfect technique, didn't you?

What was it Leslie Adgeson called you? The perfect master? The paragon of viruses?

I remember long ago when HIV, the AIDS virus, had everyone so awed with its subtlety of lethal design. But compared with you, HIV is just a crude butcher. A maniac with a chainsaw, a blunderer that kills its hosts and relies for transmission on habits humans can, with effort, get under control. Oh, old HIV had its tricks, but compared with you? An amateur!

Rhinoviruses and flu are clever, too. They're profligate, and they mutate rapidly. Long ago they learned how to make their hosts drip and wheeze and sneeze, so the victims spread the misery in all directions. Flu viruses are also a lot smarter than AIDS 'cause they don't generally kill their hosts, just make 'em miserable while they hack and spray and inflict fresh infections on their neighbors.

Oh, Les Adgeson was always accusing me of anthropomorphizing our subjects. Whenever he came into my part of the lab, and found me cursing some damned intransigent leucophage in rich, Tex-Mex invective, he'd react predictably. I can just picture him now, raising one eyebrow, commenting dryly in his Winchester accent.

"The virus cannot hear you, Forry. It isn't sentient, nor even alive, strictly speaking. It's only a packet of genes in a protein case, after all."

"Yeah, Les," I'd answer. "But *selfish* genes! Given half a chance, they'll take over a human cell, force it to make armies of new viruses, then burst it apart as they escape to

attack others. They may not think. All that behavior may have evolved by blind chance. But doesn't it all *feel* as if it's planned? As if the nasty little things were *guided*, somehow, by somebody out to make us miserable ... ? Out to make us die?"

"Oh, come now Forry." He would smile at my New World ingenuousness. "You wouldn't be in this field if you didn't find phages beautiful, in their own way."

Good old smug, sanctimonious Les. He never did figure out that viruses fascinated me for quite another reason. In their rapacious insatiability I saw a simple, distilled purity of ambition that exceeded even my own. The fact that it was mindless did little to ease my qualms. I've always imagined we humans over-rated brains, anyway.

We'd first met when Les visited Austin on sabbatical, some years before. He'd had the Boy Genius rep even then, and naturally I played up to him. He invited me to join him back in Oxford, so there I was, having regular amiable arguments over the meaning of disease while the English rain dripped desultorily on the rhododendrons outside.

Les Adgeson. Him with his artsy friends and his pretensions at philosophy -- Les was all the time talking about the elegance and beauty of our nasty little subjects. But he didn't fool me. I knew he was just as crazy Nobel-mad as the rest of us. Just as obsessed with the chase, searching for that piece of the Life Puzzle, that bit leading to more grants, more lab space, more techs, more prestige ... to money, status and, maybe eventually, Stockholm.

He claimed not to be interested in such things. But he was a smoothie, all right. How else, in the midst of the Thatcher massacre of British science, did his lab keep expanding? And yet, he kept up the pretense.

Viruses have their good side," Les kept saying. "Sure, they often kill, in the beginning. All new pathogens start that way. But eventually, one of two things happens. Either humanity evolves defenses to eliminate the threat or ... "

Oh, he loved those dramatic pauses.

"Or?" I'd prompt him, as required.

"Or else we come to an accommodation, a compromise ... even an alliance."

That's what Les always talked about. *Symbiosis*. He loved to quote Margulis and Thomas, and even Lovelock, for pity's sake! His respect even for vicious, sneaky brutes like HIV was downright scary.

"See how it actually incorporates itself right into the DNA of its victims?" he would muse. "Then it waits, until the victim is later attacked by some *other* disease pathogen. The host T cells prepare to replicate, to drive off the invader, only now some chemical machinery is taken over by the new DNA, and instead of two new T cells, a plethora of new AIDS viruses results."

"So?" I answered. "Except that it's a retrovirus, that's the way nearly all viruses work."

"Yes, but think ahead, Forry. Imagine what's going to happen when, inevitably, the AIDS virus infects someone whose genetic makeup makes him invulnerable!"

"What, you mean his antibody reactions are fast enough to stop it? Or his T cells repel invasion?"

Oh, Les used to sound so damn patronizing when he got excited.

"No, no, think!" he urged. "I mean invulnerable *after* infection. *After* the viral genes have incorporated into his chromosomes. Only in this individual certain *other* genes *prevent* the new DNA from triggering viral synthesis. No new viruses are made. No cellular disruption. The person *is* invulnerable. But now he has all this new DNA ... "

"In just a few cells -- "

"Yes. But suppose one of these is a sex cell. Then suppose he fathers a child with that gamete. Now *every* one of that child's cells may contain both the trait of invulnerability *and* the new viral genes! Think about it, Forry. You now have a new type of human being! One who cannot be killed by AIDS. And yet he has all the AIDS genes, can make all those strange, marvelous proteins ... Oh, most of them will be unexpressed or useless, of course. But now this child's genome, and his descendants', contains more *variety* ... "

I often wondered, when he got carried away this way. Did he actually believe he was explaining this to me for the first time? Much as the Brits respect American science, they do tend to assume we're slackers when it comes to the philosophical side. But I'd seen his interest heading in this direction weeks back and had carefully done some extra reading.

"You mean like the genes responsible for some types of inheritable cancers?" I asked sarcastically. "There's evidence some oncogenes were originally inserted into the human genome by viruses, just as you suggest. Those who inherit the trait for rheumatoid arthritis may also have gotten their gene that way."

"Exactly. Those viruses themselves may be extinct, but their DNA lives on, in ours!"

"Right. And boy have human beings benefited!"

Oh, how I hated that smug expression he'd get. (It got wiped off his face eventually, didn't it?)

Les picked up a piece of chalk and drew a figure on the blackboard.

HARMLESS -- > KILLER! -- > SURVIVABLE ILLNESS -- >

INCONVENIENCE -- > HARMLESS

"Here's the classic way of looking at how a host species interacts with a new pathogen, especially a virus. Each arrow, of course, represents a stage of mutation and adaptation selection.

"First, a new form of some previously harmless microorganism leaps from its prior host, say a monkey species, over to a new one, say us. Of course, at the beginning we have no adequate defenses. It cuts through us like Syphilis did in Europe in the sixteenth century, killing in days rather than years ... in an orgy of cell feeding that's really not a very efficient modus for a pathogen. After all, only a gluttonous parasite kills off its host so quickly.

"What follows, then, is a rough period for both host and parasite as each struggles to adapt to the other. It can be likened to warfare. Or, on the other hand, it might be thought of as a sort of drawn out process of *negotiation*."

I snorted in disgust. "Mystical crap, Les. I'll concede your chart; but the War analogy is the right one. That's why they fund labs like ours. To come up with better weapons for our side."

"Hmm. Possibly. But sometimes the process does look different, Forry." He turned and drew another chart.

HARMLESS -- > KILLER! -- > SURVIVABLE ILLNESS -- >

INCONVENIENCE -- > BENIGN PARASITISM -- > SYMBIOSIS

"You can see that this chart is the same as the other, right up to the point where the original disease disappears."

"Or goes into hiding."

"Surely. As E. coli took refuge in our innards. Doubtless long ago the ancestors of E. coli killed a great many of our ancestors before eventually becoming the beneficial symbionts they are now, helping us digest our food.

"The same applies to viruses, I'd wager. Heritable cancers and rheumatoid arthritis are just temporary awkwardnesses. Eventually, those genes will be comfortably incorporated. They'll be part of the genetic diversity that prepares us to meet challenges ahead. Why, I'd wager a large portion of our present genes came about in such a way, entering our cells first as invaders ... "

Crazy sonovabitch. Fortunately he didn't try to lead the lab's research effort too far to the right on his magic diagram. Our Boy Genius was plenty savvy about the funding agencies. He knew they weren't interested in paying us to prove we're all partly descended from viruses. They wanted, and wanted *badly*, progress on ways to fight viral infections themselves.

So Les concentrated his team on vectors.

Yeah, you viruses need vectors, don't you. I mean, if you kill a guy, you've got to have a life raft, so you can desert the ship you've sunk, so you can cross over to some *new* hapless victim. Same applies if the host proves tough, and fights you off -- gotta move on. Always movin' on.

Hell, even if you've made peace with a human body, like Les suggested, you still want to spread, don't you? Big-time colonizers, you tiny beasties.

Oh, I know. It's just natural selection. Those bugs that accidentally find a good vector spread. Those that don't, don't. But it's so eerie. Sometimes it sure *feels* purposeful ...

So the flu makes us sneeze. Salmonella gives us diarrhea. Smallpox causes pustules which dry, flake off and blow away to be inhaled by the patient's loved ones. All good ways to jump ship. To colonize.

Who knows? Did some past virus cause a swelling of the lips that made us want to kiss? Heh. Maybe that's a case of Les's "benign incorporation" ... we retain the trait, long after the causative pathogen went extinct! What a concept.

So our lab got this big grant to study vectors. Which is how Les found you, ALAS. He drew this big chart covering all the possible ways an infection might leap from person to person, and set us about checking all of them, one by one.

For himself he reserved straight blood-to-blood infection. There were reasons for that.

First off, Les was an altruist, see. He was concerned about all the panic and unfounded rumors spreading about Britain's blood supply. Some people were putting off necessary surgery. There was talk of starting over here what some rich folk in the States had begun doing -- stockpiling their own blood in silly, expensive efforts to avoid having to use the Blood Banks if they ever needed hospitalization.

All that bothered Les. But even worse was the fact that lots of potential donors were shying away from giving blood because of some stupid rumors that you could get infected that way.

Hell, nobody ever caught anything from *giving* blood ... nothing except maybe a little dizziness and perhaps a zit or spot from all the biscuits and sweet tea they feed you afterwards. And as for contracting HIV from *receiving* blood, well, the new antibodies tests soon had that problem under control. Still, the stupid rumors spread.

A nation has to have confidence in its blood supply. Les wanted to eliminate all those silly fears once and for all, with one definitive study. But that wasn't the only reason he wanted

the blood-to blood vector for himself.

"Sure, there are some nasty things like AIDS that use that vector. But that's also where I might find the older ones," he said, excitedly. "The viruses that have *almost* finished the process of becoming benign. The ones that have been so well selected that they keep a low profile, and hardly inconvenience their hosts at all. Maybe I can even find one that's commensal! One that actually *helps* the human body."

"An undiscovered human commensal," I sniffed doubtfully.

"And why not? If there's no visible disease, why would anyone have ever looked for it! This could open up a whole new field, Forry!"

In spite of myself, I was impressed. It was how he got to be known as a Boy Genius, after all, this flash of half-crazy insight. How he managed not to have it snuffed out of him at OxBridge, I'll never know, but it was one reason why I'd attached myself to him and his lab, and wrangled mighty hard to get my name attached to his papers.

So I kept watch over his work. It sounded so dubious, so damn stupid. And I knew it just might bear fruit, in the end.

That's why I was ready when Les invited me along to a conference down in Bloomsbury one day. The colloquium itself was routine, but I could tell he was near to bursting with news. Afterwards we walked down Charing Cross Road to a pizza place, one far enough from the university area to be sure there'd be no colleagues anywhere within earshot -- just the preheater crowd, waiting till opening time down at Leicester Square.

Les breathlessly swore me to secrecy. He needed a confidant, you see, and I was only too happy to comply. "I've been interviewing a lot of blood donors lately," he told me after we'd ordered. "It seems that while some people have been scared off from donating, that has been largely made up by increased contributions by a central core of regulars."

"Sounds good," I said. And I meant it. I had no objection to there being an adequate blood supply. Back in Austin I was pleased to see others go to the Red Cross van, just so long as nobody asked me to contribute. I had neither the time nor the interest, so I got out of it by telling everybody I'd had malaria.

"I found one interesting fellow, Forry. Seems he started donating back when he was twenty-five, during the Blitz. Must have contributed thirty-five, forty gallons, by now."

I did a quick mental calculation. "Wait a minute. He's got to be past the age limit by now."

"Exactly right! He admitted the truth, when he was assured of confidentiality. Seems he didn't want to stop donating when he reached sixty-five. He's a hardy old fellow ... had a spot of surgery a few years back, but he's in quite decent shape, overall. So, right after his local Gallon Club threw a big retirement fest for him, he actually moved across the county and registered at a new blood bank, giving a false name and a younger age!"

"Kinky. But it sounds harmless enough. I'd guess he just likes to feel needed. Bet he flirts with the nurses and enjoys the free food ... sort of a bimonthly party he can always count on, with friendly, appreciative people."

Hey, just because I'm a selfish bastard doesn't mean I can't extrapolate the behavior of altruists. Like most other user-types, I've got a good instinct for the sort of motivations that drive suckers. People like me need to know such things.

"That's what I thought too, at first," Les said, nodding. "I found a few more like him, and decided to call them 'addicts.' At first I never connected them with the other group, the one I named 'converts.'"

"Converts?"

"Yes, converts. People who suddenly become blood donors -- get this -- very soon after they've recovered from surgery themselves!"

"Maybe they're paying off part of their hospital bills that way?"

"Mmm, not really. We have nationalized health, remember? And even for private patients, that might account for the first few donations only."

"Gratitude, then?" An alien emotion to me, but I understood it, in principle.

"Perhaps. Some few people might have their consciousnesses raised after a close brush with death, and decide to become better citizens. After all, half an hour at a blood bank, a few times a year, is a small inconvenience in exchange for ... "

Sanctimonious twit. Of course he was a donor. Les went on and on about civic duty and such until the waitress arrived with our pizza and two fresh bitters. That shut him up for a moment. But when she left, he leaned forward, eyes shining.

"But no, Forry. It wasn't bill-paying, or even gratitude. Not for some of them, at least. More had happened to these people than having their consciousnesses raised. They were converts, Forry. They began joining Gallon Clubs, and more! It seems almost as if, in each case, a personality change had taken place."

"What do you mean?"

"I mean that a significant fraction of those who have had major surgery during the last five years seem to have changed their entire set of social attitudes! Beyond becoming blood donors, they've increased their contributions to charity, joined parent-teacher organizations and Boy Scout troops, become active in Greenpeace and Save The Children ... "

"The point, Les. What's your point?"

"My point?" He shook his head. "Frankly, some of these people were behaving like addicts ... like converted addicts to *altruism*. That's when it occurred to me, Forry, that what we might have here was a new vector."

He said it as simply as that. Naturally I looked at him, blankly.

"A vector!" he whispered, urgently. "Forget about typhus, or smallpox, or flu. They're rank amateurs! Wallies who give the show away with all their sneezing and flaking and shitting. To be sure, AIDS uses blood and sex, but it's so damned savage, it forced us to become aware of it, to develop tests, to begin the long, slow process of isolating it. But ALAS -- "

"Alas?"

"A-L-A-S." He grinned. "It's what I've named the new virus I've isolated, Forry. It stands for 'Acquired Lavish Altruism Syndrome.' How do you like it?"

"Hate it. Are you trying to tell me that there's a virus that affects the human *mind*? And in such a complicated way?" I was incredulous and, at the same time, scared spitless. I've always had this superstitious feeling about viruses and vectors. Les really had me spooked now.

"No, of course not," he laughed. "But consider a simpler possibility. What if some virus one day stumbled on a way to make people enjoy giving blood?"

I guess I only blinked then, unable to give him any other reaction.

"Think, Forry! Think about that old man I spoke of earlier. He told me that every two

months or so, just before he'd be allowed to donate again, he tends to feel 'all thick inside.' The discomfort only goes away after the next donation!"

I blinked again. "And you're saying that each time he gives blood, he's actually serving his parasite, providing it a vector into new hosts ... "

"The new hosts being those who survive surgery because the hospital gave them fresh blood, all because our old man was so generous, yes! They're infected! Only this is a subtle virus, not a greedy bastard, like AIDS, or even the flu. It keeps a low profile. Who knows, maybe it's even reached a level of commensalism with its hosts -- attacking invading organisms for them, or ... "

He saw the look on my face and waved his hands. "All right, far-fetched, I know. But think about it! Because there are no disease symptoms, nobody has ever looked for this virus, until now."

He's isolated it, I realized, suddenly. And, knowing instantly what this thing could mean, career-wise, I was already scheming, wondering how to get my name onto his paper, when he published this. So absorbed was I that, for a few moments, I lost track of his words.

"... And so now we get to the interesting part. You see, what's a normal, selfish Tory-voter going to think when he finds himself suddenly wanting to go down to the blood bank as often as they'll let him?"

"Um," I shook my head. "That he's been bewitched? Hypnotized?"

"Nonsense!" Les snorted. "That's not how human psychology works. No, we tend to do lots of things without knowing why. We need excuses, though, so we rationalize! If an obvious reason for our behavior isn't readily available, we invent one, preferably one that helps us think better of ourselves. Ego is powerful stuff, my friend."

Hey, I thought. *Don't teach your grandmother to suck eggs*.

"Altruism," I said aloud. "They find themselves rushing regularly to the blood bank. So they rationalize that it's because they're good people ... They become proud of it. Brag about it ... "

"You've got it," Les said. "And because they're proud, even sanctimonious, about their newfound generosity, they tend to extend it, to bring it into other parts of their lives!"

I whispered in hushed awe. "An altruism virus! Jesus, Les, when we announce this ... "

I stopped when I saw his sudden frown and instantly thought it was because I'd used that word "we." I should have known better, of course. For Les was always more than willing to share the credit. No, his reservation was far more serious than that.

"Not yet, Forry. We can't publish this yet."

I shook my head. "Why not! This is big, Les! It proves much of what you've been saying all along, about symbiosis and all that. There could even be a Nobel in it!"

I'd been gauche, and spoken aloud of *The Ultimate*. But he did not even seem to notice. Damn. If only Les had been like most biologists, driven more than anything else by the lure of Stockholm. But no. You see, Les was a natural. A natural altruist.

It was his fault, you see. Him and his damn virtue, they drove me to first contemplate what I next decided to do.

"Don't you see, Forry? If we publish, they'll develop an antibody test for the ALAS virus. Donors carrying it will be barred from the blood banks, just like those carrying AIDS and syphilis and hepatitis. And that would be incredibly cruel torture to those poor addicts and

carriers."

"Screw the carriers!" I almost shouted. Several pizza patrons glanced my way. With a desperate effort I brought my voice down. "Look, Les, the carriers will be classified as diseased, won't they? So they'll go under doctor's care. And if all it takes to make them feel better is to bleed them regularly, well, then we'll give them pet leeches!"

Les smiled. "Clever. But that's not the only, or even my main reason, Forry. No, I'm not going to publish, yet, and that is final. I just can't allow anybody to stop this disease. It's got to spread, to become an epidemic. A pandemic."

I stared, and upon seeing that look in his eyes, I knew that Les was more than an altruist. He had caught that specially insidious of all human ailments, the Messiah Complex. Les wanted to save the world.

"Don't you see?" he said urgently, with the fervor of a proselyte. "Selfishness and greed are destroying the planet, Forry! But nature always finds a way, and this time symbiosis may be giving us our last chance, a final opportunity to become better people, to learn to cooperate before it's too late!

"The things we're most proud of, our prefrontal lobes, those bits of gray matter above the eyes which make us so much smarter than beasts -- what good have they done us, Forry? Not a hell of a lot. We aren't going to think our way out of the crises of the twentieth century. Or, at least, thought alone won't do it. We need something else, as well.

"And Forry, I'm convinced that 'something else' is ALAS. We've got to keep this secret, at least until it's so well established in the population that there's no turning back!"

I swallowed. "How long? How long do you want to wait? Until it starts affecting voting patterns? Until after the next election?"

He shrugged. "Oh, at least that long. Five years. Possibly seven. You see, the virus tends to only get into people who've recently had surgery, and they're generally older. Fortunately, they also are often influential. Just the sort who now vote Tory ... "

He went on. And on. I listened with half an ear, but already I had come to that fateful realization. A seven-year wait for a goddamn coauthorship would make this discovery next to useless to my career, to my ambitions.

Of course I could blow the secret on Les, now that I knew of it. But that would only embitter him, and he'd easily take all the credit for the discovery anyway. People tend to remember innovators, not whistle-blowers.

We paid our bill and walked toward Charing Cross Station, where we could catch the tube to Paddington, and from there to Oxford. Along the way we ducked out of a sudden downpour at a streetside ice cream vendor. While we waited, I bought us both cones. I remember quite clearly that he had strawberry. I had a raspberry ice.

While Les absentmindedly talked on about his research plans, a small pink smudge colored the corner of his mouth. I pretended to listen, but already my mind had turned to other things, nascent plans and earnest scenarios for committing murder.

It would be the perfect crime, of course.

Those movie detectives are always going on about "motive, means, and opportunity." Well, motive I had in plenty, but it was a one so far-fetched, so obscure, that it would surely never occur to anybody.

Means? Hell, I worked in a business rife with means. There were poisons and pathogens galore. We're a very careful profession, but, well, accidents do happen ... The same holds for opportunity.

There was a rub, of course. Such was Boy Genius's reputation that, even if I did succeed in knobbling him, I didn't dare come out immediately with my own announcement. Damn him, everyone would just assume it was his work anyway, or his "leadership" here at the lab, at least, that led to the discovery of ALAS. And besides, too much fame for me right after his demise might lead someone to suspect a motive.

So, I realized. Les was going to get his delay, after all. Maybe not seven years, but three or four perhaps, during which I'd move back to the States, start a separate line of work, then subtly guide my own research to cover methodically all the bases Les had so recently flown over in flashes of inspiration. I wasn't happy about the delay, but at the end of that time, it would look entirely like my own work. No coauthorship for Forry on this one, nossir!

The beauty of it was that nobody would ever think of connecting me with the tragic death of my colleague and friend, years before. After all, did not his demise set me back in my career, temporarily? "Ah, if only poor Les had lived to see your success!" my competitors would say, suppressing jealous bile as they watched me pack for Stockholm.

Of course none of this appeared on my face or in my words. We both had our normal work to do. But almost every day I also put in long extra hours helping Les in "our" secret project. In its own way it was an exhilarating time, and Les was lavish in his praise of the slow, dull, but methodical way I fleshed out some of his ideas.

I made my arrangements slowly, knowing Les was in no hurry. Together we gathered data. We isolated, and even crystallized the virus, got X-Ray diffractions, did epidemiological studies, all in strictest secrecy.

"Amazing!" Les would cry out, as he uncovered the way the ALAS virus forced its hosts to feel their need to "give." He'd wax eloquent, effusive over elegant mechanisms which he ascribed to random selection but which I could not help superstitiously attributing to some incredibly insidious form of intelligence. The more subtle and effective we found its techniques to be, the more admiring Les became, and the more I found myself loathing those little packets of RNA and protein.

The fact that the virus seemed so harmless -- Les thought even commensal -- only made me hate it more. It made me glad of what I had planned. Glad that I was going to stymie Les in his scheme to give ALAS free reign.

I was going to save humanity from this would-be puppet master. True, I'd delay my warning to suit my own purposes, but the warning would come, nonetheless, and sooner than my unsuspecting compatriot planned.

Little did Les know that he was doing background for work I'd take credit for. Every flash of insight, his every "Eureka!" was stored away in my private notebook, beside my own columns of boring data. Meanwhile, I sorted through all the means at my disposal.

Finally, I selected for my agent a particularly virulent strain of Dengue Fever.

3.

There's an old saying we have in Texas. "A chicken is just an egg's way of makin' more eggs."

To a biologist, familiar with all those latinized-graecified words, this saying has a much more "posh" version. Humans are "zygotes," made up of diploid cells containing forty-six paired chromosomes ... except for our haploid sex cells, or "gametes." Males' gametes are sperm and females' are eggs, each containing only twenty-three chromosomes.

So biologists say that "a zygote is only a gamete's way of making more gametes."

Clever, eh? But it does point out just how hard it is, in nature, to pin down a Primal Cause ... some center to the puzzle, against which everything else can be calibrated. I mean, which *does* come first, the chicken or the egg?

"Man is the measure of all things," goes another wise old saying. Oh yeah? Tell that to a modern feminist. A guy I once knew who used to read science fiction told me about this story he'd seen, in which it turned out that the whole and entire purpose of humanity, brains and all, was to be the organism that built starships so that *houseflies* could migrate out and colonize the galaxy.

But that idea's nothing compared with what Les Adgeson believed. He spoke of the human animal as if he were describing a veritable United Nations. From the E. coli in our guts, to tiny commensal mites that clean our eyelashes for us, to the mitochondria that energize our cells, all the way to the contents of our very DNA ... Les saw it all as a great big hive of compromise, negotiation, *symbiosis*. Most of the contents of our chromosomes came from past invaders, he contended.

Symbiosis? The picture he created in my mind was one of minuscule puppeteers, all yanking and jerking at us with their protein strings, making us marionettes dance to their own tunes, to their own nasty, selfish little agendas.

And you, *you* were the worst! Like most cynics, I had always maintained a secret faith in human nature. Yes, most people are pigs. I've always known that. And while I may be a user, at least I'm honest enough to admit it. But deep down, we users count on the sappy generosity, the mysterious, puzzling altruism of those others, the kind, inexplicably decent folk ... those we superficially sneer at in contempt, but secretly hold in awe.

Then you came along, damn you. You *make* people behave that way. There is no mystery left, after you get finished. No corner remaining impenetrable to cynicism. Damn, how I came to hate you!

As I came to hate Leslie Adgeson. I made my plans, schemed my brilliant campaign against both of you. In those last days of innocence I felt oh, so savagely determined. So deliciously decisive and in control of my own destiny.

In the end it was anticlimactic. I didn't have time to finish my preparations, to arrange that little trap, that sharp bit of glass dipped in just the right mixture of deadly microorganisms. For CAPUC arrived then, just before I could exercise my option as a murderer.

CAPUC changed everything.

Catastrophic Autoimmune PULmonary Collapse ... acronym for the horror that made AIDS look like a minor irritant. And in the beginning it appeared unstoppable. It's vectors were

completely unknown, and the causative agent defied isolation for so long.

This time it was no easily identifiable group that came down with the new plague, though it concentrated upon the industrialized world. Schoolchildren in some areas seemed particularly vulnerable. In other places it was secretaries and postal workers.

Naturally, all the major epidemiology labs got involved. Les predicted the pathogen would turn out to be something akin to the prions which cause shingles in sheep, and certain plant diseases ... a pseudo-lifeform even simpler than a virus and even harder to track down. It was a heretical, minority view, until the CDC in Atlanta decided out of desperation to try his theories out, and found the very dormant viroids Les predicted -- mixed in with the glue used to seal paper milk cartons, envelopes, postage stamps.

Les was a hero, of course. Most of us in the labs were. After all, we'd been the first line of defense. Our own casualty rate had been ghastly.

For a while there, funerals and other public gatherings were discouraged. But an exception was made for Les. The procession behind his cortege was a mile long. I was asked to deliver the eulogy. And when they pleaded with me to take over at the lab, I agreed.

So naturally I tended to forget all about ALAS. The war against CAPUC took everything society had. And while I may be selfish, even a rat can tell when it makes more sense to join in the fight to save a sinking ship ... especially when there's no other port in sight.

We learned how to combat CAPUC, eventually. It involved drugs, and a serum based on reversed antibodies force-grown in the patient's own marrow after he's given a dangerous overdose of a vanadium compound I found by trial and error. It worked, most of the time, but the victims suffered great stress and often required a special regime of whole blood transfusions to get across the most dangerous phase.

Blood banks were stretched even thinner than before. Only now the public responded generously, as in time of war. I should not have been surprised when survivors, after their recovery, volunteered by the thousands. But, of course, I'd forgotten about ALAS by then, hadn't I?

We beat back CAPUC. It's vector proved too unreliable, too easily interrupted once we'd figured it out. The poor little viroid never had a chance to do get to Les's "negotiation" stage. Oh well, those are the breaks.

I got all sorts of citations I didn't deserve. The King, gave me a KBE for personally saving the Prince of Wales. I had dinner at the White House.

Big deal.

The world had a respite, after that. CAPUC had scared people it seemed, into a new spirit of cooperation. I should have been suspicious, of course. But soon I'd moved over to WHO, and had all sorts of administrative responsibilities in the Final Campaign on Malnutrition.

By that time I had almost entirely forgotten about ALAS.

I forgot about you, didn't I? Oh, the years passed, my star rose, I became famous, respected, revered. I didn't get my Nobel in Stockholm. Ironically, I picked it up in Oslo. Fancy that. Just shows you can fool anybody.

And yet, I don't think I ever *really* forgot about you, ALAS, not at the back of my mind.

Peace treaties were signed. Citizens of the industrial nations voted temporary cuts in their standards of living in order to fight poverty and save the environment. Suddenly, it seemed, we'd all grown up. Other cynics, guys I'd gotten drunk with in the past -- and shared dark premonitions about the inevitable fate of filthy, miserable humanity -- all

gradually deserted the faith, as pessimists seem wont do when the world turns bright -- too bright for even the cynical to dismiss as a mere passing phase on the road to Hell.

And yet, my own brooding remained unblemished. For subconsciously I *knew* it wasn't real.

Then the third Mars Expedition returned to worldwide adulation, and brought home with them TARP.

And that was when we all found out just how *friendly* all our home-grown pathogens really had been, all along.

4.

Late at night, stumbling in exhaustion from overwork, I would stop at Les's portrait where I'd ordered it hung in the hall opposite my office door, and stand there cursing him and his damned theories of symbiosis.

Imagine mankind ever reaching a symbiotic association with TARP! That really would be something. Imagine, Les, all those *alien* genes, added to our heritage, to our rich human diversity!

Only TARP did not seem to be much interested in "negotiation." Its wooing was rough, deadly. And its vector was the wind.

The world looked to me, and to my peers, for salvation. In spite of all of my successes and high renown, though, I knew myself for a second-best fraud. I would always know -- no matter how much they thanked and praised me -- who had been better than me by light years.

Again and again, deep into the night, I would pore through the notes Leslie Adgeson had left behind, seeking inspiration, seeking hope. That's when I stumbled across ALAS once more.

I found *you* again.

Oh, you made us behave better, all right. At least a quarter of the human race must contain your DNA, by now, ALAS. And in their newfound, inexplicable, rationalized altruism, they set the tone followed by all the others.

Everybody behaves so damned *well* in the present calamity. They help each other, they succor the sick, they all *give* so.

Funny thing, though. If you hadn't made us all so bloody cooperative, we'd probably never have made it to bloody Mars, would we? Or if we had, there'd have still been enough paranoia around so we'd have maintained a decent quarantine.

But then, I remind myself, you don't *plan*, do you. You're just a bundle of RNA, packed inside a protein coat, with an incidentally, accidentally acquired trait of making humans want to donate blood. That's all you are, right? So you had no way of knowing that by making us "better" you were also setting us up for TARP, did you? Did you?

5.

We've got some palliatives, now. A few new techniques seem to be doing some good. The latest news is great, in fact. Apparently, we'll be able to save 15 percent or so of the children. Up to half of those may even be fertile.

That's for nations who've had a lot of racial mixing. Heterozygosity and genetic diversity seems to breed better resistance. Those peoples with "pure," narrow bloodlines will be harder to save, but then, racism has its inevitable price.

Too bad about the great apes and horses. At least all this will give the rain forests a chance to grow back.

Meanwhile, everybody perseveres. There is no panic, as one reads about happening in past plagues. We've grown up at last, it seems. We help each other.

But I carry a card in my wallet saying I'm a Christian Scientist, and that my blood group is AB negative, and that I'm allergic to nearly everything. Transfusions are one of the treatments commonly used now, and I'm an important man. But I won't take blood.

I won't.

I *donate*, but I'll never take it. Not even when I drop.

You won't have me, ALAS. You won't.

I am a bad man. I suppose, all told, I've done more good than evil in my life, but that's incidental, a product of happenstance and the bizarre caprices of the world.

I have no control over the world, but I can make my own decisions, at least. As I make this one now.

Down, out of my high research tower, I've come. Into the streets, where the teeming clinics fester and broil. That is where I work now. And it doesn't matter to me that I'm behaving no differently from anyone else today. They are all marionettes. They think they're acting altruistically, but I know they are your puppets, ALAS.

But I am a *man*, do you hear me? I make my own decisions.

Fever wracks my body now, as I drag myself from bed to bed, holding their hands when they stretch them out to me for comfort, doing what I can to ease their suffering, to save a few.

You'll not have me, ALAS.

This is what *I* choose to do.