

Danger — hard hack area

“Sequence your genome at home, and set science free!” cry the biopunks.

Paul McAuley

Many people predicted that VirCon 2010, the first open meeting of the biopunk movement, would end in a riot. In truth, it was as privately exciting and as publicly dull as any science conference. From their besieged underground culture, the clandestine surfers of the new wave in biology are emerging blinking into the daylight and, dare one say, into respectability.

But VirCon 2010, held in a dilapidated midtown New York hotel, was not without friction. Despite the rule that no biological material could be brought in, there was a ruthless but futile inspection by officers of the Food and Drug Agency. Several people suspected of being undercover federal agents or snoops from biotech companies were summarily ejected, and the press was barred, which led to strange scenes outside the hotel as TV journalists were videoed typing into a laptop to communicate with conference delegates just inside the lobby.

I was allowed to cover the event from the inside because of personal contacts made while covering the pursuit and arrest of Kevin ‘Freaky-Deaky’ Miles, the man who claimed to have turned the Amazon rainforest luminescent — and because I’m a science fiction writer, and biopunks love SF.

The delegates were mostly young, white males under 25, dressed in everything from baggies and T-shirts, through goth black and multiple piercings, to business suits. All had self-inflicted gene hacks: feathers or scales instead of hair; bands of chromatophores on their foreheads; motile tattoos. And of course, unlike the pasty-faced, overweight cliché of computer hackers, the biopunks were bursting with health, their skin and eyesight perfect, their muscle definition superb, their energy seemingly boundless.

That energy was needed: the convention operated on a 24-hour basis, and no one slept. The biopunks took over the hotel, talking over laptops displaying DNA source codes; poking through half-dismantled sequencers; and attending workshops on resetting metabolic clocks, overwriting junk DNA, perturbing quantum effects in microtubules, and, of course, meme viruses.

In many ways it was like a science meeting in the so-called Golden Age, before research was taken over by big business and commercial confidentiality strangled the exchange of ideas. Biopunks are, of course, scornful of secrecy. They are pathological braggarts; their culture is based on the idea of open



source, from pirated genomes placed on servers from Cuba to Finland, to hacks disseminated in philes and e-zines with titles like *Triplet Threat* and *They’re Made Out Of Meat*. The only difference is that their published work stands not by peer review but by utility, and that almost everyone uses their hacker handle rather than their real name.

One major exception to the last was the grey eminence of biopunk, Professor Jack Lovegrove, who became a legend after he was fired from the University of Kansas for teaching a practical course in evolution and jailed for distributing pirate DVDs containing the sequence of the entire human genome.

“Garage science is the wave of the future for biology,” he told me in a brief interview. “The big companies are tied down by class-action suits and vicious regulations imposed

by frightened, short-sighted politicians. But anyone can isolate DNA in their kitchen, and sequence it rapidly with cheap, modern RNA chips. Twenty years ago, DNA had to be cut by expensive enzymes and sequenced one base pair at a time. Now, the sequencers found in any physician’s surgery can be modified to run in parallel, so copyrighting the human genome is a joke. Anyone here could sequence it in a couple of days, starting with one of their own cells.”

Lovegrove’s keynote address, “Post-humanism and how to achieve it”, was packed, but he was at pains to point out that most of his ideas were at the ‘golden vaporware’ stage. “We’re interested in radical ideas, not frost-proofing strawberries, but the rumours that these kids have found the cure for cancer, the key to immortality or boosting intelligence are a crock. Anyone who’d done any of those things would have boasted about it by now, set up his own company, or sold out to Cytex or Dow.

“Of course, people are trying out radical techniques on themselves, but medicine has a long history of self-experimentation. This is no secret society of hyperintelligent supermen — just idealistic kids who love science and believe that information should be free, not locked up by copyright and litigation. All our ideas are discussed openly, although not everyone will be able to understand them.”

As for the idea that biopunks are using meme viruses to modify human behaviour, Lovegrove was scathing. “The meme thing is mostly over. Sure, there were pranks. People had fun injecting their victims with pseudo-religious visions of Elvis or Princess Di. But now the drug cartels have muscled into memes, the craze has died down. Besides, changing belief systems is a hard hack. I’d say that the virulent campaigns against genetic modification died out from natural causes, not from infection by some imaginary supermeme.”

He’s right. There are limits to what kids in home-made labs can do. But in the heady atmosphere of the convention, with biopunks partying to the limit or deep in jargon-ridden conversation, their tattoos and chromatophore bands flashing and blushing, it’s hard to believe that some of their more fantastic claims won’t remain science fiction. ■

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