Win a Nobel prize!

Wealth, chicks, guys, the secrets of the Universe — they can all be yours.

Vernor Vinge

JACEY

Dear Johann — I was sorry to learn that you have been passed over for tenure. I hope you won't give the bums on your committee another chance to abuse you.

This was going to be an ordinary letter. Then I realized that you probably don't remember me. We took the same section of Fong's Comparative Genomics class at Berkeley, but I quit the program and drifted into the arts (see my SensationXXX performances). Now I work in human resources. It's a perfect fit for my technical and people skills.

Johann, what I have to offer you is so extreme that I'm afraid your filters would trash my mail before you ever see it. That's why you are reading this as an advertisement in your personal copy of *Nature*: hopefully, this will show that we're serious.

In fact, writing this ad has been a lark. Yes, it's over the top … but it's also the absolute truth. Working with us, you can win a Nobel prize, and that is just the beginning. So in just a few words, I have to convince you to take the next step.

I know you read outside your field, Johann. That's one reason why unimaginative drudges get tenure and you don't. Have you been following the news about MRI-with-transfection? The enabling mechanism is an HIV transfection of the subject's glial cells. The inserted genetic material expresses proteins which can be signalled by a ten-gauss modulation of the MRI's gradient magnets. Synched with the rf pulses, they promote the production of selected neurotransmitters. If it's done right, the experimenter can trigger from an alphabet of about 20 neurotransmitters — at a spatial resolution only twice as coarse as the MRI's imaging resolution.

The neuroscience guys have fallen in love with this. And right behind them are the psych people: with whole-brain MRI/t scans, researchers could induce almost any psychopathology. In public, that possibility is just ominous speculation. In secret, at least three research labs already have whole-brain MRI/t. We have such systems ourselves, and although we haven't abused them, they are more scary than the editorials. One of the most horrifying mind-sets is something we call 'specialist fugue state'. When applied to a researcher, it creates an idiot savant, without a life beyond short-range research goals.

This is not what I'm selling you, Johann! But beware. Several labs are recruiting specialists for just this nightmare. Maybe they're getting fully informed volunteers; more likely they are getting duped victims. Either way, the public will soon be seeing all sorts of research productivity that is secretly based on this modern form of slavery. Don't you get trapped by such a scam.

No, if you work for us, you'll be running the biotech show. Johann, you are brilliant and well trained and … well, we've studied you pretty carefully. You can name your price. We have major financing from a small but wealthy nation state. If you buy in, you'll have resources that rival the CDC: a ten-petaflops computer with a storage area network that mirrors the largest dynamic proteomics sites. All this — and the support staffs — will be fully dedicated to your personal use.

So what's our secret? Well, we've improved the MRI/t trigger mechanism to respond on millisecond timescales. We can induce direct brain I/O with the look and feel of memory and thought. For 50 years, people have been predicting mind/machine symbiosis. Now we've actually done it, Johann! You'll want to talk to Wardner. He's our first success, a perfect fit for the technique, although his specialty is strategic planning. With our MRI/t technique, Wardner is like a god.

You know how your field is these days: more breakthroughs than ever before — but it's dull, dull. A modern cell-mechanics lab is like an old-time genomics site — a quietly humming data factory. The same thing has happened in the non-bio sciences. Some theoreticians think this is heaven, but take a look at the 2013-01-17 editorial in *Nature*: for every breakthrough, there are a thousand more hiding in the new databanks.

You can change that, Johann. Your mind will interact directly with our world-class automation. You'll solve protein dynamics problems as easily as ordinary people plan a day at the beach.

Your working conditions? They can be almost anything you want — except that you'll have to relocate. We've already built a large villa for you at our Riviera research site. You'll have complete freedom of movement. The transfection is not reversible, but it's easy to 'safe' the neuroactives when you are not actually connected. And of course, being 'connected' doesn't involve any messy electrodes. You simply enter the study that we've built in your villa. It's quite spacious, considering it's inside a four-tesla MRI system. (And we must be very careful about magnetic materials; Wardner can tell you the usual bozo stories about high-velocity jewellery.)

Well, that's my pitch, Johann. Obviously, our company must be very secretive at this stage. But please, come out and visit us. No obligation, except to sign a nondisclosure agreement. We ask that you don't tip off your colleagues about this short visit, but we want you to be absolutely comfortable about it. You have family, a cousin I believe? Feel free to let her know where you are going.

I hope you can come, Johann.

Your friend,

Helen

Helen Peerless,

Director for Human Resources, Mephisto Dynamics ■

From 1972 to 2000, Vernor Vinge taught mathematics and computer science at San Diego State University. His most recent novel is A Deepness in the Sky *(Millennium).*