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MOVERS

Nicholas Schork, director, Center for Biomedical Informatics; co-director, Cancer Genetics Program, University of California, San Diego

2001–present: Professor of psychiatry and biostatistics, University of California, San Diego
1997–2001: Associate professor of epidemiology and biostatistics, Case Western Reserve University, Cleveland, Ohio
1999–2000: Vice-president of statistical genomics, Genset, La Jolla, California

An philosopher at heart, Nicholas Schork was an unlikely future director of a cancer programme. To make ends meet, the philosophy graduate student tapped into his more lucrative skills as a computer programmer for the University of Michigan's medical school. In doing so, he began a circuitous route towards becoming a geneticist.

Philosophers have a tradition of being inspired by great teachers. Schork's interest in genetics and genomics was fuelled by luminaries such as Francis Collins, now director of the National Human Genome Research Institute but back then a professor at the University of Michigan. As Schork's interest in biology grew, so did his desire to address the theoretical problems in genomics. His father, a biostatistician, encouraged him to find mentors in biostatistics and epidemiology.

Along with his MA in philosophy, Schork began a PhD in statistical genetics. He had no idea how much the discipline would permeate science. "I thought I'd write my thesis in obscurity and resign myself to a basement office in a far corner of a university teaching biostatistics," he says.

As it turned out, he couldn't have been in a better position to capitalize on what, at the time, was a rare set of skills. Bypassing a postdoc stint, he took an assistant professorship at Case Western Research University (CWRU) in Cleveland, Ohio. A colleague introduced him to biologist Eric Lander, founding director of the Broad Institute in Cambridge, Massachusetts — one of several serendipitous meetings that accelerated Schork's career. Together, he and Lander wrote a landmark review of the genetic underpinnings of complex traits.

Linking genetic variation to disease risk raised so many questions that Schork took leave from CWRU to explore the potential for a map of linked genetic markers, or haplotype, for the French company Genset, one of the first players in the field. The project was completed by the public–private International HapMap Consortium, and Schork then focused on integrated statistical approaches to understanding the genetic basis of disease. When the University of California, San Diego, offered a chance to help establish a genetics/genomics presence, he jumped at it.

In his dual roles as director of the Center for Biomedical Informatics and co-director of the Cancer Genetics Program, Schork proves that abstract thinkers have a significant role to play in science. "I'm still a student all these years later," he says. ■

Virginia Gewin

RECRUITERS & ACADEMIA

A physics walkabout

I'm living a great postdoctoral adventure. On a 27-month fellowship funded by the US National Science Foundation (NSF), I will spend time at several institutions, with the University of Cambridge, UK, as my base. It's an amazing opportunity. I get plenty of money for living and travelling, a fancy title, ample freedom and the chance to work with famous professors on three continents — bolstering not only my résumé but also my personal growth.

I'm on a Maths and Physical Sciences Distinguished International Postdoctoral Research Fellowship, which is aimed at enhancing connections between the US science and engineering community and its international counterparts.

As a graduate student in condensed-matter physics at the University of Wisconsin, Madison, I worked as a theorist on the use of electrons in silicon nanostructures for quantum information processing.

The itinerant nature of my fellowship could make productivity a challenge. Fortunately, condensed-matter and quantum-information physics — with their tendency towards self-contained papers with few authors — are well suited to far-flung collaborations. In fact, work in emerging areas often benefits from interdisciplinary, cross-institutional cooperation.

My first stop was the University of Melbourne in Australia, from which I have just returned after four months. It was a natural choice: we in Madison have good relations with the Australians, whose government has invested heavily in a Centre for Quantum Computer Technology. Plus, I have family there.

Australia's small physics community feels somewhat isolated. Save for the work of a well-known few, the fact that good physics happens there is often overlooked. The isolation and the relatively short PhD programme (3.5 years) can make it hard to compete for postdocs abroad.

Melbourne was wonderful. I often hung out with my cousins on sunny afternoons. I tackled projects in silicon, quantum optics and diamond devices, whose properties make them promising for quantum-technology applications. Especially exciting was the chance to work with experts in other subfields such as atomic physics. I have fond memories of group meetings over beers at the university pub.

Now I'm 'home' at the legendary Cavendish Laboratory. Soon I'll be off for a couple of months in Japan. I'll be writing about those experiences soon. ■

Charles Tahan is an NSF distinguished research fellow.

GRADUATE JOURNAL

Graduation joy

The completion of my PhD marks the official end of my student life, which will constitute close to 75% of my lifetime by the time I graduate. I'll finally move on after years of homework and exams, not to mention many hours of research on the effects of rising atmospheric carbon dioxide on carbonate ecosystems.

Completion gives satisfaction. To finally conquer a seemingly endless challenge, which right now seems to be the project of my life, is a source of tremendous joy. At first, I didn't see the benefit of receiving a fancy piece of paper with three rather ordinary letters after my name. But then I remembered working around the clock — in the field collecting water samples, in the lab analysing chemical properties, and in front of the computer creating numerical models, typing papers and analysing my results. And, of course, there was the amount of free time that I spent contemplating and reflecting on my research. Suddenly that piece of paper seems invaluable and those three letters magical.

Eventually, the anticipated graduation euphoria will subside and I may come to realize that it was just another stepping stone. Around the corner, adventures are lining up. With a few months to go, I still do not know what route I'll choose. It may be a postdoc, a teaching position, something outside academia, or I may even pack my bags and explore the world for a while. Regardless, I'm excited by the prospect of myriad possible directions. ■

Andreas Andersson is a final-year PhD student in oceanography at the University of Hawaii.