

GRADUATE JOURNAL

Home truths

I am amazed at the way Europe is increasingly becoming one big 'village'. The countries seem to be getting closer to each other. Now that Poland is a member of the European Union, for example, we can travel without restrictions. Not so long ago, it was very hard to leave Poland for Western Europe or the United States — especially to work or study.

I remember the problems faced by my father when he wanted to work abroad. My generation has incredible freedom by comparison: nearly all of my colleagues from my days as an undergraduate are abroad doing PhDs, or have simply moved away with their spouses or partners.

On the one hand, this is good — I now have friends in many different countries and can visit them whenever I want. But I do wonder what the future holds for Polish science. I understand that there are better opportunities for young scientists outside Poland, but will these well-trained scientists ever return home to work?

I hope that the answer is yes, although I have my doubts. A few of my colleagues and I rejected PhD posts abroad and stayed here, partly because we wanted to prove that it is possible to become a good scientist in Poland. What effect this choice will have on our careers remains to be seen. But at least we did what our hearts dictated. ■

Karolina Tkaczuk is a graduate student at the Technical University of Lodz, Poland.

Microsoft's European perspective

As part of its European Science Initiative, software giant Microsoft has announced that it intends to open up to five 'centres of excellence' in Europe over the next five years. The company is also funding a career-development fellowship programme, which will see up to ten European postdocs in science and technology receive as much as €250,000 (US\$320,000) each. In addition, Microsoft will support up to 30 PhDs a year, fund scientific workshops throughout the continent and sponsor an award for European Scientist of the Year.

All of these efforts will help Microsoft to find ways to match its computing expertise with different scientific disciplines in Europe, says Stephen Emmott, director of the company's External

Research Office in Cambridge, UK. It also aims to match its own research expertise in computing with promising European scientists in emerging fields that embody "new kinds of science", he adds.

To that end, the first centre of excellence will be the Centre for Computational and Systems Biology at the University of Trento in Italy. The university and Italian local and national governments are also providing funding. The centre will employ ten full-time research directors, and with postdocs, technicians and visiting scientists, should play host to about 40 scientists at any one time.

Microsoft hope that the five centres of excellence will help to build bridges between computing and other sciences, as well as between industry and academia, but it also wants them to serve as a focal

point for career development, says Emmott. The company aims to match promising young researchers with more senior scientists throughout Europe, as well as computer scientists at the company, and provide them with strong funding and infrastructure. "A key part is supporting the careers of various promising scientists," says Emmott.

For both graduate students and postdocs, the company is seeking young scientists willing to work at interfaces: between the United States and Europe; the company and academia; and computing and more traditional disciplines.

The other centres of excellence have yet to be announced, but sites in France, Germany and Britain are currently under consideration. ■

Paul Smaglik is editor of Naturejobs.
▶ <http://research.microsoft.com/ero>

MOVERS Carlo Croce, director, cancer genetics programme, Ohio State University



Carlo Croce lives for the rush from a discovery, which might explain why he can't think of anything else he would rather do with his life. His obsession is a cure for cancer. His career, always focused on that singular goal, has left dozens of discoveries in its wake.

While at medical school in his native Italy, Croce turned his growing interest in oncogenic viruses into a fellowship to study in the United States. But a freak

event — his mentor Karl Habel's contraction of encephalitis from a monkey B virus infection — diverted his fellowship from the Scripps Clinic in San Diego, California, to the Wistar Institute in Philadelphia, Pennsylvania. There, he mapped the first viral integration site on a chromosome — and started down the uncharted road of cancer genetics.

Within two years of coming to the United States, Croce had built a lab at the Wistar and in the early 1980s, he delivered dozens of high-profile papers illuminating the role of genetics in cancer. "Nobody was thinking cancer was a genetic disease," he says.

Croce went on to detail the role played by genes in lymphomas and tumours, and he recently defined the part that microRNAs play in cancer development.

"Essentially, all of my work is to try to identify the earliest genetic changes that occur in many different human cancers,"

Croce says. His major challenge has been to exploit the results from fundamental science to develop novel therapies.

"Without fundamental discoveries, we'll never cure cancer," he says.

Building an environment to churn out such discoveries — which prompted his move to Ohio State University — is his latest endeavour. Besides his new role as the director of the university's human cancer genetics programme, he is also developing an Institute of Genetics. "I want the university to be a world leader of cancer research," he says. And he wants its discoveries translated into treatments.

By August 2006, Croce will have more than 30 faculty members in his new building. A risk-taker at heart, he anticipates that the centre will allow him to continue scoring monumental discoveries. "You get high only if you make a really exciting discovery, the usual kind of stuff doesn't work," he says. Spoken like a true addict. ■

CV 2005: Director, human cancer genetics programme, Ohio State University.

1991–2004: Director, Kimmel Cancer Institute, Philadelphia, Pennsylvania.

1988–91: Director, Fels Institute for Cancer Research and Molecular Biology, Temple University, Philadelphia, Pennsylvania.

1980–88: Professor of human genetics, University of Pennsylvania, Philadelphia, Pennsylvania.

1980–88: Associate director, the Wistar Institute, Philadelphia, Pennsylvania.