TURNING POINT
Josefina del Mármol

Argentinian PhD student Josefina del Mármol, who studies biological sciences at the Rockefeller University in New York, once planned to become a classical pianist. But Bach took a back seat, and now del Mármol is focusing on biophysics and molecular neurobiology as one of 48 inaugural Howard Hughes Medical Institute (HHMI) international student research fellows.

Do you miss music's former role in your life?
There's a piano at Rockefeller that everyone can use. It's so great that it's there, because I couldn't bring mine from home. I like to play all classical music. But now it's just a hobby.

What prompted you to pursue science?
I wanted to be a musician, but in high school I took a biology class, and that changed everything. We studied evolution, and I couldn't stop reading and studying it. At college, I took up biology and never looked back.

Describe your first major project.
As an undergraduate, I developed a fluorescent probe for tissue that lets you control what is being lit and when. That work was published last year in *Analytical Chemistry* and I was first author. It reaffirmed my interest in pursuing a science career.

What specific area are you working in?
Mechanosensation — the conversion of mechanical stimuli into cellular responses. It has a role in the sense of touch and in physiological processes such as blood-flow sensing by vessels. Unlike for senses such as smell or vision, the molecular nature of mechanosensation remains poorly understood.

How did you become interested in the topic?
I attended a lecture on mechanically gated ion channels by Roderick MacKinnon, and decided to do a rotation in his lab. I began monitoring how ion-channel activity responds to mechanical stimulation.

What advice can you offer others looking to work for big names such as MacKinnon?
You have to feel genuine interest and motivation for the question being researched. If you are in it only for the prestige, it will show during your interviews.

What has been your most significant challenge so far?
Coming to the United States. It's been a huge adjustment. All my undergraduate biology courses were in Spanish, but here, the science is very intense, yet I have to speak and write in English. Plus it's very cold and the light gets dim at 4 o'clock in the afternoon. This will be my second winter here, and I know I'm in for months and months of suffering.

Why did you want to study in the United States?
While I was an undergraduate in Argentina, I wasn't sure I wanted to go abroad, but I met lecturers from Rockefeller. They were so free — the way they thought, what they were doing. Scientists in Argentina are limited by money and resources, and the scientific community is much smaller than in the United States. You can't always study exactly what you want because there may not be a lab working on it. At Rockefeller, I work with top-notch scientists every day — I'm far closer to where science is actually happening.

Has the HHMI award changed your opinion on the feasibility of a career in academia?
Yes. Coming into a graduate career in the United States, I was aware that funding is quite hard to find for international people. But so far, both Rockefeller and HHMI have supported me, which gives me the idea that it's not impossible to build up a career here regardless of my citizenship, even in times of financial crisis.

Is there one issue that consistently crops up in your work?
Managing stress. I watch my principal investigator; although he's under a lot of pressure, he enjoys the science he does. And that's a good way to do it — be really motivated, but stay calm and try to have fun. ■

INTERVIEW BY KAREN KAPLAN

UK RESEARCH

Industry support falls

UK industry must invest in research and create more scientific jobs to uphold the nation's economic position, says an analysis. *Global Research Report: United Kingdom*, released on 19 October by Thomson Reuters, found that Britain is a world leader in key research indicators including highly cited papers. Almost 20% of articles with more than 1,000 citations come from the United Kingdom (that is, have at least one author in Britain), more than from any nation except the United States. Yet private investment in research has fallen since 1991. "Industry has failed to establish opportunities for talented researchers," says report author Jonathan Adams, Thomson Reuters' director of research evaluation, based in Leeds, UK. "We're going to find ourselves heading for second-rate economic status."

AUSTRALIA

Academics unhappy

Australian academic researchers are rallying behind a report that laments their working conditions. The government-funded study, out in September, surveyed 5,525 academics across all career stages and fields at 20 universities. It found that nearly half of academics under 30 want to leave the country or the profession owing to low pay and lack of job security. Researchers are frustrated by teaching obligations that cut into research time; low grant success rates; and 70- to 80-hour working weeks. Emmaline Bexley, a lecturer in higher education at the University of Melbourne and lead author of the study, says she hopes that her research will "help government and universities to work together to replenish the academic workforce".

COLLABORATION

Regional pact formed

An agreement will let postdocs and early-career researchers from Singapore and Europe apply for training funds in each other's regions. Under the three-year pact, which was announced on 13 October and aims to stimulate collaboration, Singaporean scientists can seek European Molecular Biology Organization (EMBO) fellowships and grants and undertake EMBO training courses and activities. Fellowships will be available to European scientists wishing to work in Singapore. The pact is between EMBO, the European Molecular Biology Conference and the Singaporean government.