Q&A

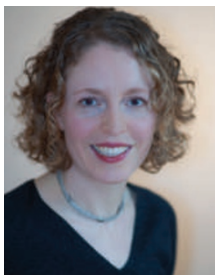
Mara Mather, associate professor of gerontology and psychology at the University of Southern California in Los Angeles, has received the American Psychological Association's award for early-career contributions.

Did you follow a straightforward path to academia?
No. Science didn't excite me until I started working on a college thesis exploring differences in information processing in the brain hemispheres. But by the time I realized I wanted to go to graduate school, it was too late to apply. Luckily, I found work as a full-time research assistant at the Memory Disorders Research Center in Boston, Massachusetts. The postdocs there educated me about the top graduate programmes in cognitive psychology, such as the one at Princeton University in New Jersey.

Why did you choose gerontological research?
There was no grand plan. I was doing research on memory, and the ageing aspect of it really interested me. In graduate school, I investigated how people remember the source of information they receive. I found that older people rely more than younger adults on their general knowledge and stereotypes when reconstructing memories.

What does this award mean for your career?
It will help me focus on getting grants and building collaborations for the next step in my career — developing further expertise in neuroimaging. I am increasingly fascinated by how the brain changes with age and want to have the tools to take my research in that direction.

How are you changing the focus of your research?
One motive for my moving to the University of Southern California (USC) was to have access to a great magnetic resonance imaging facility and an impressive number of faculty members who have expertise in neuroanatomy and imaging. I also recently received a US National Institutes of Health (NIH) K02 award for researchers who want to learn a new skill. I'm now informally attending neuroanatomy classes, getting tutorials from colleagues and immersing myself in the literature to learn the best analytical procedures to develop a neuroimaging focus to my research.



Has the NIH award brought unexpected benefits?
Definitely. It was an extensive application that required other faculty members to put in writing that they were willing to give me tutorials as part of my training plan. Because I had just moved to the USC, the process forced me to meet colleagues outside my department and initiate collaborations.

Describe the science for which you're being recognized.
My research on how the effects of emotion on cognition change with age seems to have made the biggest impact within the psychology community. While I was a postdoc at Stanford University in Palo Alto, California, my adviser, Laura Carstensen, and I found a 'positivity effect' — older adults pay more attention to positive information and less to negative information than younger adults do. I then began to look for the mechanisms of these attention differences. I've also investigated how emotional arousal sometimes enhances or impairs memory.

What obstacles did you face in getting your lab off the ground?
It was really hard at first because I didn't have a large start-up package, and teaching on new courses took up so much of my time. During my first year, I got a National Science Foundation grant, but not enough money to hire a research assistant. I had difficulty recruiting graduate students at first because they don't know who you are, so I worked with undergraduates to start with. They're great, but they don't stay around for long, so I was always training someone new. And, as a new faculty member, I didn't have the financial resources to pay study participants, so I relied on undergraduates as a free subject pool.

Was there a turning point at which you felt your lab hit its groove?
My first NIH grant made an enormous difference to the amount of research I got done. I finally had enough funding to hire a full-time research assistant.

How do you deal with the pressures of being a new professor?
In science, I think it is important to find a way to separate evaluations of your research from evaluations of your intellect. In academia, you are being assessed all the time, and rejection is part of that. When criticism comes, you have to take it as useful information rather than as a negative reflection of yourself. If I hadn't adopted that attitude, I would have been less likely to apply for such things as the NIH award. ■

Interview by Virginia Gewin

IN BRIEF

Institute forges ahead

A biomedical research institute in Roanoke, Virginia, is to begin recruiting in the next few months and will open this autumn. Administrators plan to bring in six to eight neuroscience research groups to the Virginia Tech Carilion School of Medicine and Research Institute by September and expect to spend US$50 million in the next 5 years to recruit a total of 30 research teams to support the institute's neuroscience, cardiovascular-biology and cancer-biology endeavours. The institute's incoming director, Michael Friedlander, says that these areas are poised for big breakthroughs by combining molecular genetics, computational biology and behavioural approaches.

EU students stay static

Few European countries have created strategies to support or encourage the mobility of European students, according to two new reports. This is despite the European Commission making mobility an aim of its 10-year plan to reform higher education. *Focus on Higher Education in Europe 2010*, released on 8 March by the Eurydice Network, a European Union education-analysis group, says that European nations should create mobility policies that include developing specific initiatives to help students study abroad. The *Doctoral Degrees Beyond 2010* report, released this month by the League of European Research Universities, recommends that the European Commission and national governments support mobility and that individual universities explicitly promote it during researchers' doctoral programmes.

Academics take salary hit

Nearly a third of faculty members at US universities had salary reductions in 2009–10, according to a national survey of 822 institutions and almost 220,000 faculty members and researchers. For those who received pay cuts, the median cut was 3%. About 21% of faculty employees received no pay rise. Results of the survey, conducted by the College and University Professional Association for Human Resources in Knoxville, Tennessee, were released on 8 March. The poll found that the average salary for a professor in biological and biomedical sciences was US$91,184, and $88,147 for a professor in physical sciences.