

Q&A

Sheila Widnall of the Massachusetts Institute of Technology (MIT), Cambridge, won the Arthur M. Bueche Award for expanding opportunities for women and minorities in engineering.



What was your first big break?

My uncle worked for a mining company in Colorado. He gave me a chunk of uranium and I used it, along with models of atoms, to explain radioactive decay. I won the science fair in Tacoma, Washington, as a high-school junior, which garnered attention from some MIT alumni and other mentors who encouraged me to go to school at MIT.

Have you had a career-defining moment?

I'm a fluid dynamicist. In this field, the greatest honour awarded is to have an instability, the forces behind complex flow dynamics, named after you. The Widnall instability is named for my work on how unstable waves develop in turbulent fluid flows.

You have achieved many firsts. Which are you most proud of?

I was the first woman faculty chair at MIT and the first woman to serve as president of the American

Institute of Aeronautics and Astronautics, but being the first woman to serve as Secretary of the Air Force was a special honour. As someone who always wanted to fly every plane that the Air Force has, it was the type of incredible opportunity that makes my colleagues' eyes water.

How would you describe your early opportunities?

I have lived at the leading edge of a wave of increased sensitivity to the role of women in science and engineering. Science associations, MIT and even corporations were all working to increase the visibility of women. I benefited enormously from people stepping forward in my life to encourage me to take advantage of opportunities. It has been an incredible ride.

What has been the biggest change for women during your working life?

The numbers and the acceptance of women is

definitely the biggest change. I was one of 20 women in a freshman class of 1,100. Now women make up almost half of the undergraduate population. The most significant change, though, is the sense of equality and teamwork among the students. It is a very different atmosphere from when I was in school.

Is there a continued need to champion opportunities for women in engineering, or do they have parity?

I think there is a continuing need. MIT has done very well. Women are the majority in half the engineering departments here, but that is not true everywhere in the country. And, in industry, women are still not in the highest levels of management. We still need to pay attention to that.

What is your career philosophy?

Aim high, the Air Force credo, has worked for me. ■

Interview by Virginia Gewin

POSTDOC JOURNAL

Nice to be appreciated



On 24 September, postdocs at Canadian universities celebrated the first annual National Postdoc Appreciation Day (NPAD). Designated by the US National Postdoctoral Association (NPA), the day recognizes and aims to raise awareness of postdocs' many research contributions.

Here in Canada, a handful of universities held NPAD events, including the University of Ottawa, where about 70 postdocs celebrated with a 'Happy NPAD' cake. At the University of Calgary, our postdoctoral association

bought us a pizza lunch, over which about 50 postdocs spoke with our associate vice-president about postdoc issues on campus.

Cakes, pizzas and parties are a nice start. But with so few official postdoctoral associations at Canadian universities, and even fewer institutes recognizing NPAD, we have yet to raise our profile enough to advocate at provincial and federal levels. We do, fortunately, now have an organization in place. The recently established Canadian Association of Postdoctoral Scholars

(CAPS) should be lobbying for nationwide improvements and standardized policies on work conditions, career development and professional support. CAPS is run by postdoc volunteers, and needs formal and federal support to sustain itself. Still, there is reason to believe we'll see improvement in the future.

The NPA is now organizing events for the 2010 NPAD. Perhaps at next year's party we'll have more to celebrate. ■

Julia Boughner is a postdoc in evolutionary developmental biology at the University of Calgary, Canada.

IN BRIEF

UK engineering up

The number of students starting undergraduate engineering courses at UK colleges and universities in 2009 is way above last year's figures, according to a report issued by the Universities and Colleges Admissions Service (UCAS), which has been tracking these numbers since 1993. Aerospace engineering admissions rose by 20.7% to 2,016; mechanical by almost 12% to 5,757; electronic/electrical by 3.7% to 4,654; and civil by 3.2% to 4,432. Admissions to undergraduate physics programmes rose by 7% to 3,559. UCAS had earlier reported that applications for admission in all programmes were up for the year by 9.7% over 2008 numbers.

Eagle eye on resources

Nine US universities are launching a publicly accessible network to connect scientists with information that is usually unavailable. The online network — dubbed 'eagle-i' by the project team — will give access to data held on the internal networks of institutions, which could include some of the country's top labs. Health researchers studying a particular group of people, for example, could access information on patient populations. The US\$15-million pilot scheme is funded by the US National Center for Research Resources, which is also putting \$12.2 million into funding the expansion of the cross-disciplinary collaboration network VIVO (see *Nature* 462, 123; 2009).

Chinese science online

Aiming to provide an information and networking resource for scientists and others in China, the Chinese government has launched a new website, www.escience.gov.cn. The China S&T Resources Sharing Website — in Chinese only — includes science news, information about scientific instruments and equipment, and links to resources of use to Chinese scientists such as worldwide publications and data-sharing networks. Users can instant-message one another through a link on the site. The website, which is publicly accessible, is administered by China's ministry of science and technology, which says that the project is part of a move to build a national science-and-technology resource infrastructure.