

Q&A

Cherry Murray, soon to be dean of the School of Engineering and Applied Sciences at Harvard University, discusses 'Renaissance engineers'.



When did you know you would be a scientist?

I figured from an early age I would become an artist because my parents are both artists. In high school, however, I got interested in science when I had a wonderful chemistry teacher. At the same time, my older brother was studying physics at MIT [Massachusetts Institute of Technology]. On a visit home, he told me I would never succeed in physics and definitely not at MIT. His challenge spurred me to get accepted in physics at MIT.

Was Bell Labs, where you worked for a while, really a scientific Shangri-La?

Yes, for a couple of reasons. First, no one was allowed to build an empire. Nobody had a huge workforce, so we had to collaborate. Second, we were simply focused on doing the best science. If an exciting discovery in physics was made someplace in the world, you could expect 25 people at Bell Labs to drop what they were doing to work day and night on the new subject. It was all

self-assembling. No one organized these responses.

Do you think physics has suffered in recent years without a creative entity like Bell Labs?

I think, in the United States, physics has suffered from lack of funding. The actual amount of funding for fundamental physics, in real dollars accounting for inflation, has decreased. It does a disservice to the field. Obviously you want to spend federal money wisely and be transparent, but Congress increasingly wants to control exactly what scientists can study. It's hard to fund good science that way. Scientists have to have some flexibility.

Do you think your science has suffered or benefited from your work as an administrator?

I know some people see management as paper pushing, but it doesn't have to be. My management experience gave me a new perspective on different areas of science and made me a better scientist as a result.

What motivated your move to Harvard?

This is a career opportunity of a lifetime. The School of Engineering and Applied Sciences is exceptional. Even though it is small, it is full of excellent people who work well in interdisciplinary teams. In its efforts to strengthen three core areas — bioengineering, information science, and applied materials and physics for device engineering — Harvard plans to better connect the sciences to the professional schools. With these goals driving the science, I want to forge collaborations that will build on a broad base of knowledge and produce a new class of Renaissance engineers rooted in good science.

What is the secret of scientific success, in your opinion?

Humility. I think success comes from a combination of hard work and realizing that you don't understand something.

Interview by Virginia Gewin.

IN BRIEF

Supervising productivity

Women engineers at at least one company enjoy their jobs more and feel more productive when they have a strong, positive relationship with a supervisor, a study has found. The study (C.-P. Lin *et al. Soc. Sci. J.* 46, 192–200; 2009) looked at a manufacturer of liquid-crystal displays based in Taiwan. The authors found women's job enjoyment and perception of productivity depend on how they view their relationships with supervisors. "It is more critical for females than for males to have an enthusiastic supervisor who treats subordinates as good friends," the authors write. "Strengthening social ties may be an appropriate technique for supervisors to use to significantly increase perceived job productivity among female staff."

US to dominate biotech?

An international annual survey has found that the United States is expected to increase its lead in biotechnology. UK law firm Marks & Clerk polled 365 executives in the drug, biotechnology, higher-education and venture-capital sectors. President Barack Obama's initiatives will boost the US position as a centre for the industry, said 85%. This threatens the role of Europe, despite problems in US biotech (see *Nature* 459, 467; 2009). Co-author Paul Chapman, a partner in the firm, says the United States is showing new support for regenerative medicine and potential acceptance of stem-cell research. "Europe and the UK cannot afford to watch from the sidelines," he says in the report.

Connected universities

A UK report calls for more recognition of the contributions made by university scientific and other research to national economic prosperity. The report, by the National Endowment for Science, Technology and the Arts, says that the University of Dundee's excellence in life sciences, for example, led to the creation in the Scottish city of one of Britain's leading life-sciences clusters. Policy-makers have had difficulty putting the excellence of UK universities to economic use, says 'The Connected University', but now "this issue has become urgent". Noting that "the innovative businesses our universities create and support will be essential to allowing us to emerge strongly from the recession", the report looks at ways to make that a reality.

POSTDOC JOURNAL

Postdoc, you'd better network!



This imperative phrase rang in my brain as I attended a major conference in my field recently. The meeting-abstract deadline had passed me by as I was ensconced in new motherhood. But mindful of a modest travel allowance that I must spend this year, I packed a bag, left my son with his capable dad and flew off for some excellent networking adventures.

I looked forward to reuniting with long-time colleagues and mentors, as well as meeting new researchers with whom collaborations might be fruitful. And, for

better or for worse, I would give prospective search-committee members a face and a personality to match my CV, should it cross their desks. As a fledgling scientist, I feel I must ply all the tools of the trade at my disposal to find that right tenure-track opportunity. That said, I'm not a natural networker.

To motivate my keen self, I aimed to meet at least five new colleagues a day during the four-day conference. As I weaved among symposia, coffee breaks and receptions, I swapped business cards, clinked pints and mentally

sketched hypotheses (not always best done alongside beer, as the hypotheses seldom look as pretty the next morning).

An excess of late nights and early mornings led quite literally to 'conference-itis', as I came down with a cold when I arrived home. Yet my trip was worthwhile. I achieved most of my networking goals, which I can only hope will translate into job opportunities in the near future. ■

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