

Careers-perspective interview

A. Malcolm Campbell

What is your scientific background?

I received a BSc in Biology from Davidson College, NC, and a PhD in biology from The Johns Hopkins University, Baltimore. In graduate school, I worked on cloning and characterizing the avian SR slow-switch calcium pump (SERCA2). I then was awarded a PEW Teacher-Scholar postdoctoral fellowship – these are two-year awards assisting those with a scientific or mathematical PhD to make the transition to the classroom. For the first year, I worked with Ursula Goodenough at Washington University, learning the model system of *Chlamydomonas*. This was a traditional postdoc position, but I also sat in on Ursula's cell-biology class, gave two lectures and had an undergraduate conduct research with me during the summer. The next fall, I went to Macalester College in St Paul, MN to work with Jan Serie. During this year, my work was partly teaching, partly research and also looking for a job. These two years were crucial in my training for my current position.

What does your current job involve?

My current job can be described as 75% teaching, 20% research and 5% advising students and performing committee work. I teach three lecture courses and two laboratory courses each year. My research is done by undergraduate students who conduct independent research with me, and I do some bench work myself. I have four areas of research, including *Chlamydomonas* biology and pedagogical research into teaching innovations. Interestingly, the most rewarding work has been the pedagogical research, and I would like to think that I am having a positive influence on curricular reform.

Why did you choose to move away from bench research?

I chose to divert from the conventional academic research route before I started graduate school – I knew that I wanted to teach when I entered Hopkins. I find teaching to be more rewarding than research. I enjoy working with students, I feel that I can influence more people in my current position than I could have if I had stayed at the bench, and I have a job with more reasonable expectations so that I can have a family life too. Many tenure-track faculty members at research institutions are put under extreme demands to obtain grants, and I did not want to spend most of my time doing that. In fact, most of the senior group leaders I know at research institu-



tions do little or no bench work and lament the fact that they can't do more. Their time seems to be spent writing, talking on the phone and going on trips to give seminars. I get to spend more time in the lab than they do, even though I have 'moved away from the bench'!

Are you considering going back into research?

I do not plan on leaving this job for one that is more focused on bench research. I like my job just fine. I can keep the projects I have now or switch to new questions at any time. Why give up this academic freedom?

What are the good and bad points about your job?

There are many good points. I thoroughly enjoy working with college-age students and find it very satisfying to be able to help them both in and out of the classroom. I enjoy presenting information in a way that makes it easier for students to understand. I also enjoy being a mentor to students who are interested in biology-related careers, both in academic research and other areas. This is a very exciting time to be teaching biology – with all the new methods and subsequent discoveries and also with the rapid developments in electronic communications that are changing teaching practices. I enjoy the pedagogical research, and the lifestyle on a college campus.

There are a few bad points. The most obvious one to me is, when I go to scientific meetings, I encounter academic snobbery among some scientists, who lose interest in talking to me once they realize where I work. Another negative is

that I must work very hard to stay current in my field. We do not get the steady stream of researchers giving seminars, and I am isolated within my department since small colleges cannot hire several molecular cell biologists. Keeping abreast of developments can be achieved, but it requires a more concentrated effort with electronic communication and reading journals than it does at a research institution.

Is there any advice you can give to someone thinking of pursuing a career similar to yours?

I think that knowing the good and bad points is a good place to start. There is more information in a booklet (also a Web version) I wrote for the American Society for Cell Biology entitled 'How to get a teaching job at a primarily undergraduate institution', which was based on my experiences as a PEW Teacher-Scholar. Try the URL: <http://www.faseb.org/ascb/commit/teach.htm>

Were your colleagues and mentors encouraging and/or helpful about your choice of career move?

Some people in graduate school thought that what I wanted to do was very noble and encouraged me, but others said I would become 'brain-dead' if I pursued this career. In fact, when my first rotation mentor learned that I wanted to teach, he told me I was at the wrong institution and I should go to a teachers' college instead. I know some of the other graduate students wanted to talk to me about teaching, but they were afraid to tell their group leaders. There was a general sense that teaching was not a respectable career choice.

Did you consider any other non-research careers?

I was so focused on teaching as a career choice that I never considered other options seriously. I toyed with the idea of sales or computers, but these ideas were quickly dismissed.

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