

# At last, a chance for postdocs to learn how to teach

Gordon Uno:

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**M**ost postdocs have little teaching experience when they apply for their first faculty position. They have been primed to emphasize research, often at the expense of everything else. So when they enter a tenure-track faculty position that includes teaching responsibilities, they are often unprepared to develop and teach a curriculum.

"They're caught," says Gordon Uno, chairman of the department of botany and microbiology at the University of Oklahoma. The educational system has not been structured to give postdocs the teacher training they need. But a few postdoctoral programmes are now being designed to emphasize teaching. Some are funded by universities, others are sponsored by the US National Institutes of Health (NIH), and others have been created by foundations.

In 1999, Uno's department created and part-funded two positions for 'teaching postdocs'. These were to teach classes, improve introductory botany and microbiology classes, and bring more technology into the classroom. Usually, though, this type of postdoc just crops up department by department, as needed.

"I don't see a trend sweeping the country," says Uno. "The struggle is whether you have the 'luxury' of having a teaching postdoc as opposed to someone who might be focusing more on research."

Teaching postdocs may attract scientists who want to work at institutions that only grant a first degree. But they might find some lingering arrogance about their pedigree if they applied for positions at PhD-granting universities.

## INDEPENDENT ANSWER

Although most teaching postdocs are scattered throughout university departments in the United States, a few institutions and foundations are taking a more organized approach. In 1999, the National Institute for General Medical Sciences (NIGMS) launched a five-year, \$3.1-million programme aimed at both educating postdocs for academic positions and increasing minority representation in the sciences.

Under the programme, called the Institutional Research and Academic Career Development Award, postdocs at four universities — Emory, North Carolina,

Arizona and the University of California, Davis — spend part of their time teaching at institutions whose students are mainly members of ethnic minorities. Salaries, starting at \$28,260, are based on NIH standards (see *Naturejobs* 5; 10 January 2002).

Each grant emphasizes different ways to gain teaching experience. For example, the Davis–San Francisco State University (SFSU) programme, Professors of the Future (PROF), requires research collaboration between faculty mentors at SFSU and Davis. The postdocs are coached in teaching, they co-teach with their SFSU mentor and finally take a course alone. "Teaching is part of what they're here for and it's not an extracurricular activity," says Jerry Hedrick, professor of biochemistry at Davis and programme director for the Davis–SFSU partnership.

## CHEMISTRY ESTABLISHED

Another established programme is the Scholar/Fellow Program for Undergraduate Institutions, set up in 1987 and supported by the Camille and Henry Dreyfus Foundation. So far, 200 fellows have completed the programme of teaching and research in chemistry, chemical engineering and biochemistry departments at undergraduate institutions. Salaries start at a competitive \$35,000.

Patricia Reggio, professor of chemistry and biochemistry at Kennesaw State University, Georgia, has just received her first Scholar/Fellow award. She hired a postdoc to work on computational modelling of drug-receptor interactions, teach a lecture course in general chemistry and develop a senior-level course in computational chemistry. "The idea is for the faculty-award recipient to mentor the postdoc," says Reggio.

Brian Coppola, an associate professor of chemistry at the University of Michigan in Ann Arbor, has also sponsored several teaching postdocs in the past. Now the University of Michigan has started a teaching postdoc programme similar to the Davis–SFSU arrangement with Oberlin and Kalamazoo colleges.

Postdocs who can teach are a move in the right direction for future faculty, says Coppola, "so they don't walk into the first day of their professional career as unprepared as has been historically true". ■

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## Web links

Camille and Henry Dreyfus Foundation  
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