

Women in Forum: It's Never Too Late to Return to Science

Imagine leaving science for years and then returning. Most scientists wouldn't even consider it. For some, however, it is the obvious—often the only—choice when there are children to raise or elderly parents who need care. Although men may find themselves taking time off, usually it is women who make these choices and leave science. What difficulties do they face when they want to come back? That is the topic of an open forum on Science's Next Wave. In the forum, which runs from 2 May to 4 July, women scientists will discuss the pleasures and difficulties of picking up the dropped thread of their careers, and will be available for discussion with the Next Wave audience.

For those who want to return to a career in science after being out of the professional loop, getting back in can seem daunting. Science and technology change rapidly; as Linda Holland, a developmental biologist at the Scripps Institution of Oceanography in La Jolla, California, puts it, if you're out a year, "and you're in the technical business, then your skills get to be too rusty and nobody wants to hire you." Even so, the return journey to science is far from impossible. These days, more and more women are taking time off and coming back. Those who return say they are glad they did. For many, the fear of failure is quickly overcome when they return to the laboratory and find themselves quickly picking up new techniques as if they had never left.

The situation for those who want to come back is much better than it was several decades ago. Holland took 2 years off, beginning in 1964. She says that when she finally tried to get a job, she encountered some obstacles. "I rather naively assumed that people would look at me and say, 'well you're only in your early 20s, you've had three children, you've got a master's degree and a publication or

two, and you must really be able to do a lot!'" Instead, Holland said she found that the university "insisted that you list who your husband is, what he does, and how many children you have. I was unprepared for these tremendous prejudices that were even written into the rule books." Although women today often face informal prejudices, these overtly discriminatory practices are now illegal.

In addition, a variety of programs now exist to help make reentry easier. One such effort is the National Institutes of Health's (NIH's) reentry program, administered by the Office of Research on Women's Health. This program, designed for Ph.D.s, has eased the reentry of Gloria Chepko.

Chepko, 53, got her Ph.D. in developmental biology in 1978 at George Washington University in Washington, D.C. She then took 6 years off to care for her sick parents. Coming back into science, she says, "was pretty scary," because it had "changed so much." Chepko says she made the decision to overcome her fears by asking herself, "Can I live without doing it [science]?" Once she decided she couldn't, the NIH program provided her with critical support.

Reentry programs are not restricted to the United States. In the United Kingdom, scientists can apply for the Daphne Jackson Fellowships, administered by the Daphne Jackson Trust for those returning to science and engineering.

But having a fellowship is not enough to guarantee success on either side of the ocean—considerable initiative also is required. Margaret Rayman, another forum participant, received her D.Phil. in bioinorganic chemistry from Oxford in 1969, did several postdocs, and then spent 15 years raising a family. Her first return to work wasn't in science; she launched a successful

business in home design and remodeling. But after doing that for some time, she began thinking, "I never really meant to do this forever; why am I still here doing it?"

At that point, she decided she had to find a way back into science. To get back on track, Rayman went to the local college of technology to learn keyboard skills. The course went well, so she followed up with one in word processing. After that, Rayman says, she thought, "Well, now I'm beginning to move into the 20th century."

She then decided to hone her job-seeking skills and went to a course run by the local authorities for people who were unemployed. "That," says Rayman, "was very helpful, because they explained to you that really, if you want to get back into employment, it's all about whom you know."

Then Rayman thought that maybe she should see what was going on at the local university and perhaps get another degree, so she got hold of the postgraduate prospectus from the University of Surrey. She then contacted a Surrey professor of chemistry with whom she had worked at Oxford. They had lunch, and he told her about the various people in the chemistry department. Additional digging led her to the Daphne Jackson Fellowships.

After familiarizing herself with the chemistry faculty, Rayman found a sponsor and wrote a proposal. In late 1992, while waiting for the fellowship money to become available, she decided to work in her sponsor's lab on a trial, unpaid basis, to see whether she could slip back into science after 15 years out. The result? "It all felt incredibly familiar," says Rayman; "it was not alien at all; I felt quite at home straightaway." Is she happy to be back in science? Says Rayman, "Yes, I felt I was capable of more than I was doing on an intellectual level."

The bottom line offered by the women in the Next Wave forum is that although reentering the scientific work force may be difficult, it's not impossible. If intellectual curiosity (rather than the desire for big bucks) is your driving force and you have a passion for science, it's never too late to go back. All the new techniques that have come along in the meantime can be learned, say those who have successfully reentered. And, as you will see in the Next Wave forum, most women find that once they're back in science, it's exactly where they wanted to be all along.

—Nicole Ruediger

This is one of a series of pages linked to features on Science's Next Wave, the AAAS/Science Web site for young scientists (www.nextwave.org). This story highlights a discussion forum on "Women Reentering the Scientific Work Force," in the "Going Public" section of the Next Wave. The forum begins 2 May and remains open for discussion until 4 July.

To join the discussion on "Women Reentering the Scientific Work Force," please go to Science's Next Wave, on the World Wide Web at www.nextwave.org, and look under the "Going Public" heading on the home page. There you will find essays by some of the people mentioned in this story and the discussion forum.