NETWORKING

E-Mail Links Science's Young and Frustrated

Only 2 years ago, it was commonly believed that the United States was running out of scientists. Stories about the supposed crisis appeared in newspapers and journals—even as many young scientists, newly minted Ph.D.s in hand, were pounding the pavement in search of work. For some, the news stories were merely depressing, but for Kevin Aylesworth, a 32-year-old postdoctoral physicist at the Naval Research Laboratory in Washington, D.C, they served as a catalyst. Aylesworth founded the Young Scientists' Network, an electronic mail drop for those who, like himself, faced an uncertain future.

"The stories made me angry," he says, "because I had many qualified friends who were sending out hundreds of letters looking for work and there were no jobs. It was a complete myth that there was a shortage of scientists. So I started the network to counter that myth."

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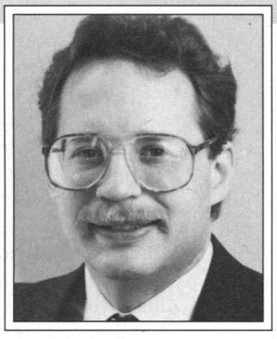
–Kevin Aylesworth



STEVE TURNER

Once a week, Aylesworth dispatches an eclectic mix of job tips, funding sources, summaries of news stories, and updates on government decisions affecting scientific research. Members are invited to send in their own tips, opinions, and queries. It's an informal support group, and to join one need only add his or her name to Aylesworth's subscriber list*; there are no fees. Although the information is heavily skewed to physicists ("I can only do so much," says Aylesworth), there are also chemists, engineers, and computer scientists among the 170 members.

Aylesworth doubts that his network has landed anyone a job. "If it has, I haven't heard from them," he says. But it has provided an apparently much-needed forum for frustrated scientists who see little chance of finding a career in their chosen field. "For me, the main value of the network was in confirming the trouble I was having finding a job," said Alan Wachs, a 32-year-old physicist (with a Ph.D. from the University of Illinois and a postdoc at Lawrence Livermore Labs), who applied to more than 100 institutions in a fruitless search for a position. "I had one interview," he recalls, "and was lucky to have that." Wachs is currently working as a quality assurance specialist at Tennesee's Oakridge National Laboratory and thinks it's unlikely he will ever resume his research in materials science. "I have to look at it realistically: there's too great a supply of scientists and too little demand."

Like Wachs, other members laud the network for the support it provides. "It helps save your sanity," said Carol Marians, 52, who has two Ph.D.s from MIT (one in mathematics, the other in materials science and engineering) and is currently working as a software engineer for Quantitative Technology Corp. in Beaverton, Oregon. "After putting in all that time and training, it helps to know that it's not because of a personal failing that you can't find research work—it's because of the system."

Younger scientists use the network to keep tabs on the current employment situation. "I watch the older students as they look at the job market; they don't have the most upbeat stories to tell," said Bruce M. Szabo, 25, a doctoral candidate in nuclear chemistry at New York's University of Rochester. "You'd like to think it's just poorly qualified scientists who are not making it, but obviously that's not true."

Although the network's academic job tips are often stale reruns from science journals, sometimes the electronic source does point to intriguing alternatives. "It does pass on helpful information about nontraditional jobs, which can provide young physicists with an escape route," said Sanford Sillman, 38, an assistant research scientist in atmospheric chemistry at the University of Michigan in Ann Arbor. Sillman was intrigued by a message that identified Japanese firms eager to hire Western scientists, while Wachs investigated a possible career as a medical physicist—a field he did not know existed until it was mentioned on the network. Even Wall Street has opportunities for the enterprising scientist—one recent message announced that an employment agency was looking for people with quantitative skills for venture capital firms.

"We're willing to list any employer who is looking to tap into a large resource of highly intelligent, well-trained people," said Aylesworth. "That's one of the biggest problems: Young scientists don't know where the jobs are. We don't need to do what we've been specifically trained for, but we do need to get a foot in the door. We need employers to tell us where the jobs are, what they'll hire us to do."

While universities traditionally provided a career path for many scientists, network members say this is no longer a viable route. "Four hundred and eighty people applied for this job last year," said John D. Sahr, 30, an assistant professor of electrical engineering at the University of Washington in Seattle. "The department has another opening now and so far has received more than 700 applications. And the computer science department has received 1000 applications for its one position." Though Sahr won the coveted post, he has no illusions about his longer-term prospects, and so keeps an eye on the network's news. "I haven't escaped the problems of having a scientific career," he said. "I don't have tenure, and while I'd like to go on and do great things with my research and have graduate students of my own, I think it's prudent on my part to keep alert, to pay attention to other possible careers."

Besides providing job listings, Aylesworth and other members hope the network eventually will unite scientists into a political force. Aylesworth has already called on his group to write letters to President Bush about the misconception of the shortage of scientists, and to argue against the preferential hiring of scientists from the former Soviet Union. "We're trying to become a constituency, a group with a political voice," said Daniel Colbert, 29, a postdoctoral physical chemist at the University of California, Berkeley. "When the network first started [about 2 years ago], everyone was screaming about the lack of jobs. More recently, we've realized that we've become a recognizable group and that we can get involved in political and social issues. The network gives us a place to develop and refine our ideas."

Aylesworth believes that it was at least partly because of the network that the American Physical Society recently established a committee to investigate the lack of career opportunities for young physicists. "I think older physicists finally realize there is a problem," he said. "I'm certain that in 5 years time half of my colleagues will not be doing physics; or if they are, they'll still be doing postdocs. But they'll never get a permanent position. There simply isn't a scientist shortage, and I expect there may never be one."

–Virginia Morell

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