

MOVERS

Giulio Superti-Furga, scientific director and chief executive, Research Center for Molecular Medicine, Austrian Academy of Sciences



2000-04: Co-founder, scientific director (2000), vice-president of biology (2001), senior vice-president of biology (2003), Cellzome, Heidelberg, Germany
1995-2004: Team leader, European Molecular Biology Laboratory, Heidelberg, Germany

Five years ago, Giulio Superti-Furga jumped from the tranquillity of academia into the high-risk, rough-and-tumble world of biotechnology. After an exciting but exhausting ride, he has recently returned to academia and is now combining the best of both worlds in his new lab in Vienna.

A molecular biologist, Superti-Furga got his first taste of industrial research as a PhD student, spending a year at Genentech in California. He went on to do a postdoc at the European Molecular Biology Laboratory (EMBL) in Germany, where he stayed for the next 14 years studying the proteins involved in cell signalling.

Near the end of the 1990s, Superti-Furga began thinking about launching his own company, but wasn't sure where to begin. Then he met some biotech entrepreneurs, who had come to EMBL scouting for ideas and people for their next start-up. This turned out to be one of the most important meetings of his life. "It was like playing guitar in your backyard and then the stretched limo arrives and The Rolling Stones step out and ask you to play with them," he says.

He co-founded Cellzome, a proteomics company that would both collaborate with drug firms to find better biological targets and develop its own drugs. Superti-Furga worked one day a week at EMBL while serving as scientific director and later as vice-president at Cellzome.

Suddenly, Superti-Furga found himself tackling a variety of new tasks, such as pitching his technology to dozens of investment bankers and venture capitalists. He found this audience far tougher than the most sceptical scientists. "In business, if they think you're a fool, they tell you straightaway," he says.

By 2004, Cellzome was better established and Superti-Furga was ready to move on. So when he got the chance to head up the new Center for Molecular Medicine at the Austrian Academy of Sciences, he didn't think twice. Admittedly, he had promised his Viennese wife that he would apply for jobs in her home town, but he also saw an opportunity to build another new organization.

Now he is using lessons learned at Cellzome: half of his lab consists of scientists from industry. He is hoping to combine the free-wheeling idea generation of academia with the efficient and professional execution of ideas characteristic of the biotech industry. Throwing together people from different backgrounds is consistent with his advice to young scientists: "Try to associate with people who are smarter than you."

Corie Lok

SCIENTISTS & SOCIETY

The changing face of Japan

Many young scientists in Japan find the academic environment frustrating and rigid because veteran researchers are well entrenched and career prospects seem limited.

To address this problem, the national government this year plans to introduce a few programmes to support young scientists. "So far, our investment has been focused on facilities and equipment," says Masaaki Tanaka, director of the knowledge infrastructure policy division at the education ministry. "Now, it's time to shift our focus to invest in people."

One key programme aims to encourage universities and research institutes to introduce a tenure system. A standard fixture at US universities, tenure has yet to be adopted in Japan. Instead, the country largely runs a system based on seniority in which young researchers end up working for their supervisors once they have completed their postdoc or stay in uncertain contract positions for many years. A tenure system promises a higher-level, more independent, permanent position if a researcher works for a certain period as a contract worker and generates good results during that time.

To fund this programme, the education ministry plans to give between ¥200 million (US\$1.7 million) and ¥300

million every year for up to five years to each of about 30 universities and research institutes. The money would be distributed to young researchers in their 20s and 30s chosen to fill tenure-track positions. These researchers would be independent of professors or assistant professors and have their own labs, equipment, budgets and assistants.

The new system "will certainly provide incentives for young researchers", says Hiroaki Suga, a chemical biologist at the University of Tokyo and an advocate of improving Japan's research and education. But he points out that it won't work well unless a system to evaluate the researchers' work properly is established.

Another programme being introduced by the government is targeted at young female researchers. One of its aims is to encourage women to return to work after maternity leave. Currently, many female postdocs and assistants can't get any benefits for childcare so they quit their jobs. With this programme, about 30 selected women researchers will receive about US\$3,100 every month for two years to help pay for childcare and help them continue their research. "We want talented female students to join the science world," Tanaka says.

Ichiko Fuyuno is a contributing correspondent for Nature in Tokyo.

GRADUATE JOURNAL

The end of the affair

If you want a PhD topic that will amuse your friends endlessly, try mine. For the past three years, I've worked with ants as a model of social behaviour — feeding ants, doing ant genetics and counting ants by the thousands. Graduation is a year away and writing up feels like a mountain made out of an anthill. But it pales in comparison to the biggest challenge I face this year: choosing a new career.

Over the course of my graduate studies, I've slowly realized that basic research isn't for me. As much as I agree with the idea of science for science's sake, my dream day at the office would produce more tangible results.

I've recently enrolled in a year-long mentoring programme where I meet people who have made the leap from academia to the real world. It has helped me understand that the skills gained in a PhD can be applied outside the lab as well. At the moment, my ideas range from journalism to pest management in Africa.

For someone who has focused on basic science since her undergraduate days, making the decision to quit has been like the slow death of a relationship. First, you pretend everything is all right; then, you wonder what is wrong with you; and, finally, you are forced to acknowledge that what you have invested so much time and energy in may not be what you really want. The period of mourning is over. I'm ready to move on, towards a whole new world.

Katja Bargum is a graduate student in evolutionary biology at the University of Helsinki in Finland.