

MOVERS

Hendricus Hoogenboom, chief scientific officer, Ablynx, Ghent, Belgium



2002-05: Chief scientific officer, Merus, Utrecht, the Netherlands

1999-2002: Senior vice-president of discovery research, Dyax, Liege, Belgium

1997-99: Founder and director, Target Quest, Maastricht

1995-2001: Associate professor of medical biotechnology, University of Maastricht, the Netherlands

Hendricus Hoogenboom is thinking small. After 20 years of juggling academic and commercial work in antibody engineering, his latest job takes him into the emerging field of 'nanobodies', antibody fragments that are smaller, more stable and easier to tailor to specific targets.

Among his 20-plus patents are those on Humira, the first fully human antibody approved for therapy. Seeing that many problems with conventional antibodies remain unsolved after years of engineering, Hoogenboom feels that Ablynx's technology offers a possible solution.

But even if a technology is promising, make sure there's a market for it, he warns would-be entrepreneurs.

"In Europe, many academics are seduced by grant money to initiate commercial activities," he says. "My advice is to ignore government grants until your idea has been truly tested by venture capitalists and local biotech experts."

He speaks from experience. He co-founded the Dutch biotech Merus with a plan to produce cocktails of human antibodies, combining the simplicity of monoclonal antibodies (derived from just one cell line) with the potency of polyclonals. It turned out to be difficult to raise enough funds for this venture.

"That's probably because the industry is hesitant to get into more complex biopharmaceuticals, even if the potency can be improved drastically," Hoogenboom says. "Be prepared to accept that you can be too far ahead of the industry." Ablynx, however, has plenty of funding and is already planning clinical trials of its first lead molecule.

After gaining his PhD in agricultural sciences at the Catholic University of Leuven in Belgium, Hoogenboom crossed the channel for a postdoc at the UK Medical Research Council in Cambridge. Working with "a great mentor", Gregory Winter, he co-invented phage display technology for the isolation and engineering of human antibodies. That led to two years at Winter's biotech Cambridge Antibody Technology.

The urge to work on cancer took Hoogenboom back to academia. But realizing how long it would be before this research would benefit patients pushed him to set up his first company, Target Quest. Having explored R&D in both camps, he has now decided to stick with industry.

"Drug and technology development in industry are team sports, which is often very different from the working style in academic labs," he says. "If you can adjust to this after a PhD, you are likely to do well in the biotech industry." ■

Janet Wright

SCIENTISTS & SOCIETIES

Retreat to make progress

Most postdocs in the Netherlands want to stay in academia, but only a few will be able to do so. In 1999, Peter Peters, dean of postdoc affairs at the Netherlands Cancer Institute, helped postdocs to establish an annual retreat focusing on career development. Since then, attendance has doubled to 150. The theme of last month's retreat was 'Making the right moves', based on a Burroughs Wellcome Fund/Howard Hughes Medical Institute scientific management course.

Workshops on time management, communication and project management were highly interactive. Professional trainers familiar with academia taught us, for example, how to stop work from piling up, something many of us had accepted as a natural consequence of a science job.

Established scientists from all over the world discussed ways of setting up collaborations, hiring personnel, getting funded and balancing work with family. Managerial skills are indispensable.

A talk on careers outside academia, such as industry and publishing, noted the transferable skills and qualities postdocs have, such as problem-solving, creativity and perseverance.

Participants gave five-minute talks in groups of ten to explain their research and to formulate five-year research and career goals. Discussing our goals in

small peer groups made us realize that we are responsible for our future and should direct it.

During a forum — the only session that included institute directors and principal investigators — we discussed many aspects of scientific careers. A key topic was Europe's rigid yet unclear academic path, which hampers funding and independence for young investigators. We proposed more peer-reviewed funding for young independent investigators and external review committees for faculty members to create better opportunities for postdocs.

The retreat combined an enthusiastic atmosphere with the comfort of confidentiality. Afterwards, some of us initiated important career moves, starting collaborations and looking for niche projects. Others began looking for a career outside academia. We all looked at our projects from a different perspective and learnt that we must invest now in our future to create the career options we need. We encourage postdocs to look at our website and be inspired to organize their own retreat. ■

Erik van Beers of the Netherlands Cancer Institute in Amsterdam, Anke Klerkx of the University of Amsterdam and Andrea Thiele of the Hubrecht Laboratory in Utrecht were on the retreat organizing committee.
 ▶ www.mekentosj.com/postdocs

GRADUATE JOURNAL

Endurance test

For the past three months, I have spent a lot of my free time preparing for the Boston half-marathon. Training for and running the 21-kilometre race last month made me realize that getting a PhD is an endurance event.

Accomplishing your goal, whether it's finishing a race or a PhD, takes a lot of work and time. Unfortunately, all the work can be derailed by bad weather, an injury, an unlucky collaboration or an experiment gone wrong.

Company can also make all the difference. Having someone to run with gives me that extra boost. I shudder to think what graduate school would have been like without the support of classmates, friends and my boyfriend.

And sometimes you just have to stop. During the race, I stopped at water stations and walked while I drank. In those ten seconds, I caught my breath and renewed my will to run. Although I might have shaved off time if I hadn't stopped, I'm pretty sure I wouldn't have been able to run as hard. Similarly, there were many times in graduate school when I had to take mental breaks.

In the final mile of the race, I was very tired and my left leg was cramping, but I kept running because I knew I was close to the finish line. That's how I feel now about graduate school. It's been a long time since I started and there have been some tough moments, but I can only believe the end is near. Even if my pace is slower than I was hoping for, I have to keep going. ■

Anne Margaret Lee is at Harvard University, Boston, Massachusetts.