

Short Interview:

Dr Damaris Odeny Answers Three Questions

Dr Odeny, why did you apply for a job at the Max Planck Institute for Plant Breeding Research in Cologne?

I'm impressed by the discipline and commitment of scientists at the Max Planck Institute. They always aspire to be leaders in their field of research and they are very goal-oriented. I like that a lot. What's more, the funding is good here. In terms of content, I felt it was important to be working in a very practice-oriented way – and that is the case in our work group. We have direct contacts with the plant breeders.

How important is international cooperation to you?

Very important. That's why I often take part in international conferences. Exchanging ideas enables us to think ahead. And you cannot grow if you only stay in one place.

You didn't speak any German when you came to Germany. Was that not difficult?

No, when it comes to my scientific work, not at all. I've always managed to get along with English. I was able to write my PhD thesis at the Center for Development Research in English and at the Max Planck Institute we almost all only speak English. In everyday situations, however, it is certainly better if you know German. If I have to, I will speak German – for example, with my landlady. I manage it quite well, too.

"I Want to Make a Difference for My Country"

Dr Damaris Odeny, Max Planck Institute for Plant Breeding Research, Cologne

Knowledge Transfer

Molecular biologist Dr Damaris Odeny from Kenya is working on decoding the genome of the potato at the Max Planck Institute for Plant Breeding Research in Cologne. She wants to learn as much as possible in order to combat hunger in her own country – by breeding more resilient plants, thereby improving harvests.

Dr Damaris Odeny's research area is the internal "operating instructions" of plants. At the Max Planck Institute for Plant Breeding Research in Cologne the molecular biologist is investigating which of the potato's genes are responsible for countering plant diseases such as the potato blight. The research goal is to decode these naturally occurring genes and to introduce them into cultivated plants through breeding – for example, by crossing them with wild varieties.

Research against hunger

Plant biology has experienced a revolution in recent years and the first plant genomes – in other words, the complete genetic codes – of rice and the thale cress (*Arabidopsis thaliana*),

biologists' model organism, have already been deciphered. Although the potato still holds many secrets, the researchers already know a great deal about its genetic blueprint. What fascinates Damaris Odeny most about her work? "It has the potential to change people's lives." The 36-year-old Kenyan is thinking here, above all, about the potential for her own country: "I come from a land where hunger still exists," she says. "And that is the case although we have good soils and a favourable climate." The molecular biologist is convinced that her scientific work could improve the lives of small farmers in particular by helping them to produce more resilient plants and better harvests. "Biotechnology still receives far too little attention in developing countries."

Studying abroad

That is why Damaris Odeny left Africa. She wanted to learn more, to work in a laboratory with better conditions. She was the first in her family to enter higher education. The daughter of a farmer from Kisumu in west Kenya completed a Bachelor's degree programme at the University of Nairobi. She then decided to approach the subject more scientifically and studied plant genetics at Nottingham University in the United Kingdom. With a Master's degree under her belt she moved to Bonn – without any knowledge of Germany or the German language, but with a very clear goal.

Practical orientation

"I could have had a PhD place in London," explains Damaris Odeny self-confidently. However, it would have focused more on theory and less on applied science: "I was simply looking for an opportunity that would enable me to use my work in an even better way for my country." The three-year international doctoral programme at the Center for Development Research (ZEF) in Bonn offered exactly what the young woman had been looking for: practice-oriented research specifically aimed at contributing to the fight against poverty and promoting sustainable development.

Supporting talented researchers from developing countries

A DAAD scholarship funded by Germany's Federal Ministry for Economic Cooperation and Development enabled Damaris Odeny to continue her postgraduate studies. The programme is targeted at talented young researchers from developing countries. At ZEF the molecular biologist focused on the pigeon pea, an agricultural plant that is very important for many Southern Hemisphere countries, but has not been the subject of much genetic research. Her research also took her to India for almost a year – and to Bonn's neighbouring city, Cologne, home of the Max Planck Institute for Plant Breeding Research.

International reputation

The Max Planck Institute is one of the world's leading research institutions in the field of molecular plant biology. The medium of communication here is usually English because half of the 180 research staff come from 30 different countries. Ninety PhD students from all over the world, including 35 from the International Max Planck Research School, ensure that the atmosphere is even more international. After gaining her PhD in 2006, Damaris Odeny applied for a postdoc position at the Max Planck Institute. She wanted to learn more about state-of-the-art molecular biology techniques: "I can later apply everything I learn about the potato here to other crop plants that are important in Africa."

Applying new knowledge in Kenya

"Later" could in fact be rather soon because Damaris Odeny will be returning to Kenya this year as planned: "My main concern is not increasing my list of publications. I want to make a difference for my country." She would like to lead her own group at a university. Her biggest dream, however, is her own research institute that meets European standards. "Perhaps that sounds very ambitious," she says, "but if you have good ideas and demonstrate you can produce results, then I can imagine funding becoming available, for example, from a large foundation." Damaris has always steadfastly pursued her goals. "I hope what I have learnt at the Max Planck Institute will enable me to reach a scientific level in Kenya comparable to that in Europe," she says. "I know this can't be achieved overnight, but someone has to do it. Why not me?"

Text: Janet Schayan