

Nobel Knowledge at First Hand

Young scientists exchange ideas with 65 Nobel laureates on Lake Constance

“One thing is certain: when the Nobel Meeting is taking place, the average age around here drops by a good 20 years,” says a bookseller jokingly, as yet another group of young participants hurries past his shop clutching their trademark gray canvas bags. They have to be quick, their program timetable is tight.

For 65 years now, the Lindau Nobel Laureate Meetings have been crammed with lectures, master classes, dinners and receptions – it’s often not until the events wind down in the evening that the opportunity arises to dangle tired feet in the water and catch a breath down by the harbor. Explaining the relaxed atmosphere, a Japanese doctoral student relates that “the only ones here who really feel the stress are the organizers and the journalists – everything is already organized for us junior researchers, and each of us has a personal timetable.” Then, with a smile, he bites into one of the famous local apples in his lunch packet.

He was one of around 650 junior scientists from almost 90 countries who came to meet with 65 of the world’s finest scientists. Also among those attending were 19 Max Planck doctoral students and postdocs who, as a whole, reflected the theme of the Meeting: the interaction between the research fields of biology, medicine, chemistry and physics.

The fact that interdisciplinary thinking often comes to the fore only when scientists find themselves in difficult situations is likely to have been one of the central topics of discussion at this 65th Nobel Meeting. More than ever before, the laureates showed themselves willing to talk about the obstacles and setbacks that proved to be a decisive and a decisive spur to their research. Among those invited to Lindau for the first time this year was Max Planck Director Stefan Hell, 2014 winner of the Nobel Prize in Chemistry. In his quest to develop high-resolution

STED microscopy, which supports the analysis of objects even smaller than the wavelength of light, he too had to bridge the boundaries between physics, chemistry and biology.

Does the recipe for success lie in a willingness to take risks? “Of course,” said Hell during a panel debate in Lindau’s municipal theater: “It worries me that people today prefer to polish their résumés, rather than having the courage to devote themselves to a problem regardless.” He believes that financial and structural safeguards should be put in place to allow junior scientists to pursue such risky projects and ideas.

The MPG provided 2,500 euros in funding for each of its junior scientists who attended the Lindau Nobel Laureate Meeting. And not only that: all of the Max Planck scientists, both junior and renowned, enjoyed an opportunity to exchange ideas in a relaxed atmosphere at the Max Planck dinner on June 30.

What did you gain from the Meeting in Lindau?



Ashok Keerthi, 28,
doctoral student at the MPI
for Polymer Research

The energy among all of the participants in Lindau is impressive, and was really infectious! I found myself thinking of what Harold Kroto once said, that one should “approach a problem with the curiosity of a child – they don’t know where they are going, but go they will.” And that’s just how most Nobel laureates seem to achieve success; they just keep

on going, out of sheer curiosity. At the Max Planck dinner Theodor Hänsch told us that even at the age of 73 he still has his own laboratory with apparatus that he alone uses. “Don’t you ever rest?” we asked him. And he replied: “Of course I do! I rest in my office when I’m experimenting!”



Johanna Lampinen, 27,
doctoral student at the MPI
for Biology of Ageing

The interdisciplinary focus was, in my opinion, a huge gain: The participants didn’t know one another in advance, and they were all quite open and communicative. That was precisely how I got to talking to Richard Roberts. He gave me the courage to choose a topic that has defeated many who came before me and that I had always been advised against.

Who knows? Maybe I’ll follow it through. As I discovered time and again in Lindau, this stubbornness seems to me to be an important success factor. So far, I haven’t found the right question to ask. But if I were to do so, I would certainly take the risk and get to work.



Hang Su, 34,
doctoral student at the
MPI for Chemistry

My career in science has, fortunately, progressed smoothly so far, the tips I gained in Lindau were nevertheless very inspiring. For example, the Nobel laureates were very honest about the times when they really felt unmotivated and no longer knew where to turn. In fact, I learned something very important: However exciting risky projects may

be, it is essential to maintain a balance between risk and security. If there's a question to be asked that presents a lower risk, and can be answered using standardized procedures, it makes sense to address it. With this approach in mind, after visiting Lindau I was able to rethink and newly plan one of my current experiments.



Aoife Fogarty, 27,
doctoral student at the MPI
for Polymer Research

The most important message that I learned in Lindau was that it doesn't matter whether your career fits any standard pattern. Even the careers of the Nobel laureates are littered with detours, obstacles and odd decisions that often put them on the right track. The most important things along this tortuous path are to ask valid scientific questions, to believe

in oneself, to be determined, and to have an eye for detail. If I can manage all that, I could well imagine working as a scientist until well into old age. After all, in Lindau we met scientists who, at well over 80, are still busy in the laboratory on a daily basis. That really impressed me.



MAX-PLANCK-GESELLSCHAFT



Alexander von Humboldt
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Call for Nominations Max Planck Research Award 2016

The International Research Award of the Alexander von Humboldt Foundation and the Max Planck Society

The Alexander von Humboldt Foundation and the Max Planck Society jointly confer the Max Planck Research Award, which is funded by the German Federal Ministry for Education and Research, on exceptionally highly-qualified German and foreign scientists. The researchers are expected to have already achieved international recognition and to continue to produce outstanding academic results in international collaboration – not least with the assistance of this award. Every year, two research awards are conferred on internationally renowned scientific researchers. One of the awards should be given to a researcher working in Germany and the other to a researcher working abroad. As a rule, each Max Planck Research Award is endowed with 750,000 Euros. Nominations of qualified female scientific researchers are especially welcome. On an annually-alternating basis, the call for nominations addresses areas within the natural and engineering sciences, the life sciences, the humanities and the social sciences. The Max Planck Research Award 2016 will be conferred in the area of life sciences in the subject

Organismal Biology with particular focus on sensing the environment

The Rectors/Presidents of German universities or research organisations and the scientific heads of institutes of these organisations are eligible to nominate candidates. Nominations must be submitted to the Alexander von Humboldt Foundation. Applications by prospective candidates themselves are not possible. The deadline for nominations is 15 January 2016.

Further information can be obtained from the

Alexander von Humboldt-Stiftung, Bonn (Germany)
www.humboldt-foundation.de/web/max-planck-award.html
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Prince's Programme Provides Career Springboard

The MPG has used the prize money that accompanied its Prince of Asturias Award to fund a grant programme to support Spanish junior scientists – that's how Belen Masia came to the MPI for Informatics as a postdoc

After just a short time at the institute in Saarbrücken, Belen Masia is now set to spend two years at the University of Stanford, with which the MPI for Informatics has been successfully operating a virtual institute since 2003. When that time is up, she will then set up a Max Planck Research Group in Saarbrücken. "This is a unique opportunity for me," says the 29-year-old. It was while studying for her doctorate at the University of Zaragoza in Spain that she acquired the expertise that now underpins her career in Germany. While still in Spain, she made her first contacts with scientists at the institute, and is now able to build on those.

Belen Masia is one of 19 grant recipients who have taken part in the Max Planck Prince of Asturias Mobility Programme. The funding derives from the Prince of Asturias Award for International Cooperation presented to MPG in the fall of 2013 by the then Crown Prince, now the King of Spain. The then MPG President, Peter Gruss, made the decision that the MPG should use the award to finance research residencies for Spanish junior scientists at MPIs. The 50,000 euros in prize money was matched with an equal amount of MPG's own resources, providing a fund of 100,000 euros for grants. As a result, 17 doctoral students and postdocs were able to benefit. One of the postdocs was Belen Masia.

Highly-qualified women like Belen Masia are rising to the very top in the field of informatics. "We are still a mi-



Belén Masiá at an MIT Technology Review Innovation Conference

nority in a male domain," she says, "but we are catching up." She has had no difficulties so far in making her way in a competitive environment, but finds it rather an incentive to repeatedly reinvent herself.

This also includes traveling a great deal. After spending time at the MIT Media Lab in Boston, as a visiting scientist at Microsoft in Lisbon and with China's Broadband Network and Digital Media Lab in Beijing, she earned her doctorate in Computer Science and Systems Engineering in Zaragoza.

"Sadly, research funding in Spain is constantly being cut back and many grants have been frozen entirely," she relates. Even if things improve in the coming years, she believes that research in Spain will take some time to recover. Nevertheless, she would sincerely like to return home one day. Until then, her nomadic existence will continue. "What's next? Who knows?"

In 2013, the MPG received the Prince of Asturias Award for International Cooperation.

