Digital worlds at the Harnack House

From September 20 to 23, the Harnack House in Berlin was once again transformed into a second home for around 200 alumns and junior scientists from the MPG

Max Planck Vice President Angela D. Friederici opened this year's alumni conference.

This was the third conference of junior scientists and MPG alumns in Berlin. This year's plenary lectures, panel discussions and workshops focused on the topic of digitalization and the wide variety of career options it encompasses, from autonomous driving through legal tech to artificial intelligence in biomedicine. The speakers included founders and CEOs from the fields of industry and science, among them Vice President of Bayer AG and alumna of the MPI for Molecular Genetics, Monika Lessl. During the interdisciplinary presentations and networking sessions, the alumns reported on their career paths, which were "extremely diverse and by no means predictable," as Max Planck Vice President Angela D. Friederici expressed in her opening speech. During the panel discussion, Pooja Rao, CEO of Qure.ai and alumna of the IMPRS for Neurosciences in Goettingen, added that it is often "seemingly coincidental events during a career" that open up new possibilities. Moreover, another important factor should not be forgotten: luck. However, the Max Planck Symposium focused not only on career paths but also on the challenges and prospects of digitalization: "At present, we are teaching our children subjects in which they are already being outperformed by machines; mathematics, for example. However, if we want to remain competitive in the future, we have to foster those attributes in our children of which machines are not yet capable – creativity, empathy and complex interpersonal networking." This is how Tosja Zywietz, alumnus of the Fritz Haber Institute and CEO of Rosenberger Hochfrequenztechnik, aptly summarized the future challenges associated with digitalization. "In just 20 years, machines will already be controlling and simplifying large parts of our lives that are currently managed by people, as a matter of course," adds Zywietz. Moreover, the challenge is not digitalization in itself, but the way in which society handles it. Zywietz concluded with the words: "Rather than flying to Mars, let us make sure that clean water is available to everyone free of charge." On the second day, separate topics ranging from artificial intelligence to data science were explored in career workshops. As is tradition, the intensive daytime program ended with evening conversation and a jam session in the garden and the Einstein Lobby.

18 Max Planck scientists secure high levels of EU funding

The European Research Council (ERC) has awarded the Starting Grants for 2018

The award winners included eight female scientists and ten male scientists from various Institutes of the MPG. They will each receive up to EUR 1.5 million for their research projects. The ERC awards Starting Grants every year. Scientists who completed their doctoral studies between two and about seven years ago can apply provided they realize their project at a European research institution. From all the applicants throughout Germany, the MPG was again the most successful institution in this round, ahead of the Ludwig Maximilian University in Munich (10 grants) and the Helmholtz Association (6 grants).

Photo: MPG

Step by step to greater sustainability

Sustainability group at MPI Magdeburg presents its projects at a symposium

The MPG and its scientific projects are contributing to an environmentally friendly future. Making research operations greener is the goal of a voluntary initiative at the MPI for Dynamics of Complex Technical Systems. Jakob Schweizer, one of the founders, presented the initiative's work at a sustainability symposium organized by the Federal Ministry of Education and Research (BMBF). Environmentally friendly research, do we need it? Is it even possible? "Yes, of course," says Jakob Schweizer. "At the MPI in Magdeburg, we are proving that it's possible – and that it makes sense!" Almost 300 colleagues in the fields of science and research were invited to the symposium in Munich, at which Schweizer reported on the small but important steps that the group has taken since it was established in 2015: "Our first project wasn't particularly spectacular, but neither was it unimportant," says the Research Group Leader. "We wanted our printers to be switched to recycled paper." This seems downright trivial, yet lack of thought or the alleged inferiority of recycled paper means it is often not used even though energy, water and chemical consumption could be cut significantly by doing so. The changeover, which was preceded by a complex coordination process at the Institute, is still not running absolutely smoothly. However, the sustainability group is optimistic that documents will soon be printed in a more environmentally friendly way at the MPI in Magdeburg.

The sustainability group with symbols of their projects: Peter Schulze, Emilija Kohls, Andreas Voigt, Hannes Buchholz, Sophia Pistorius, Stefanie Markstein, Sara Grundel and Jakob Schweizer (from left).

Photo: MPI Magdeburg

Another topic at the symposium in Munich was the BMBF's initiative, which has been funding scientific research projects for purposes of sustainable development (FONA) since 2010. These include measures to structure research processes and scientific institutions themselves more sustainably. Sustainability in this context is understood to encompass ecological, social and economic aspects such as the CO_2 footprint of scientific work and family-friendly human resources management. Several universities and non-university institutions are involved in FONA. Even though the MPG is not a part of FONA, its Institutes are implementing numerous projects to promote climate protection and biodiversity. Researchers at the MPI in Magdeburg, for example, are working on improving the integration of renewable energies into existing energy systems by developing methods of converting superfluous energy from wind farms into synthetic gas. "This should not stop us from making the way in which we do research more sustainable," says Jakob Schweizer. Following other initiatives such as the establishment of a bike rental system at the Institute, the sustainability group is also planning bigger projects – for example to reduce the CO_2 footprint.

A large proportion of the CO_2 emitted during the course of scientific operations comes from air travel. "Scientific exchange is essential for successful research, yet we have to ask ourselves whether every service trip is essential and whether we need to go by air when traveling within Germany," says Sara Grundel, team leader at the MPI in Magdeburg. "And if we do have to fly, we should at least be thinking about compensatory measures for offsetting CO_2 emissions." The German Travel Expenses Act allows for such additional expense, emphasizes Sara Grundel. The Federal Chancellery and a number of authorities, for example, are already practicing CO_2 offsetting. The Alfred Wegener Institute is taking action in the scientific sector. However, the Magdeburg sustainability group does not want to focus solely on projects at its own MPI. "We would like to connect with sustainability initiatives at other MPG Institutes," says Jakob Schweizer. After all, he has just experienced at the BMBF's symposium how inspiring it can be to talk with other people, also in the area of environmentally friendly research.

Strengthened and focused

Annual PhDnet conference in Tuebingen sets new topics for 2019 and beyond

Career planning, reconciling career and family life and the abuse of power: these were the topics of this year's PhDnet conference in Tuebingen. A survey of doctoral students was also conducted and a new committee elected.

"It was an exciting year for us with plenty of work," said spokesperson Jana Lasser in her opening speech. "The main projects we decided on in 2017, career & mentoring, parenthood and political commitment, particularly in Germany's nationwide N^2 network, were joined by another topic that became highly relevant due to the reports published in summer: the abuse of power. The position paper published on the PhDnet website was intended to make a clear statement. We are delighted that the task force established by the MPG with the mandate to investigate working atmosphere was able to commence its work with the involvement of PhDnet," added Lasser.

A survey was again conducted this year with the aim of underpinning PhDnet's future work with statistics. In total, 2,522 doctoral students participated in the survey, equivalent to a response rate of 50 percent. The themes addressed included supervision, good scientific practice as well as career and family planning. "It became clear that we will have to focus even more strongly on subjects such as vacation regulations, weekend work and the many reasons for breaking off doctoral studies," commented a spokesperson from the working group that conducted the survey. All in all, however, doctoral students at the MPG are still very satisfied with the facilities at their Institutes and the international working environment.

A new committee was also elected; this consists of Spokesperson Alexander Filippi (MPI for Chemistry), Vice Spokesperson and Treasurer Nikki van Teylingen Bakker (MPI of Immunobiology and Epigenetics), Secretary General Esther Tabitha Earbin (MPI for Foreign and International Criminal Law) and the Section Representatives for the BMS, Lisa Linhoff (MPI for Experimental Medicine), for the CPTS, Lindsey Bultema (MPI for the Structure and Dynamics of Matter) and for the HSS Raquel Sirotti (MPI for European Legal History).

Photo: Matthias Francke

Pathways in science

Whether in industry or in science, there are many ways in which postdocs can use their experience and interests to build a successful career. In order to raise awareness of these possibilities, the organizers of the event, which is held in cooperation with alternating partner universities, invited 100 postdocs from the LMU and various MPI to attend presentations, workshops and networking sessions in Munich on 12 October (photo). Two Career Steps are scheduled for 2019: in summer at the MPI for Brain Research in Frankfurt and in the fall at the Friedrich Schiller University in Jena.