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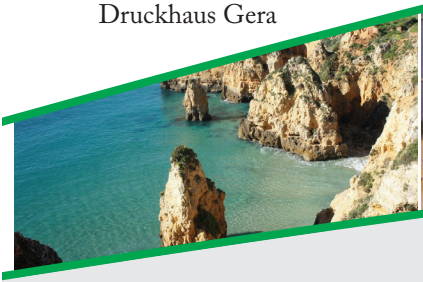

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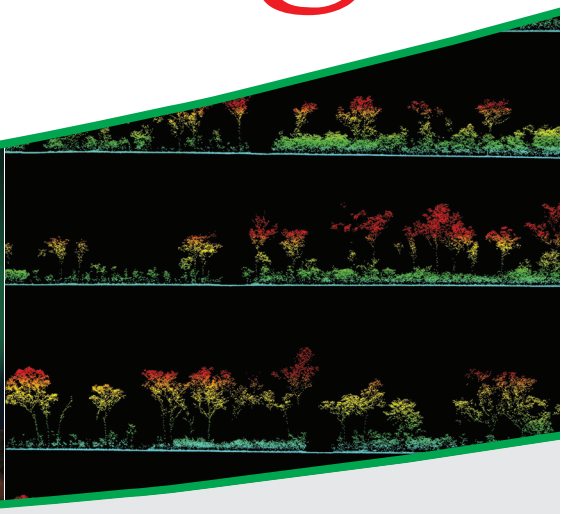
offspring



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Picture from: Felix Pithan, Ashish Malik, Ole Herud
Cover page pictures: Felix Pithan, Shaun Levick.

Editorial Note

Ashish Malik

We at Max Planck Institutes conduct basic research and follow Max Planck's principle that "Insight must precede application". While scientists worldwide have been perplexed with the notion of conducting research that has powerful impact and sustainable, Max Planck Institutes continue to conduct research at the frontiers of knowledge. Hence we asked you, the junior scientists working mostly on fundamental research, the question "how would you apply your research?"

On the PhDnet front, the past year has been yet another remarkable one; with the release of the "Best Practice Guide for Doctoral Education" among many other success stories. Like every year, Offspring brings you the reportage of the different PhDnet working groups striving to improve the work-life situation of doctoral researchers. PhDnet's "Visions in Science" conference and the Annual General Meeting will continue to be platforms for exchange and dialogue between PhD students. So be a part of the PhDnet. We look forward to see you at the upcoming events.

Some of the feature articles in this Offspring revolve around this year's theme "Applying Research". There are also interviews and scientist profiles which provide insights into specific topics like the role of German public authorities during the Nazi era or the mutualism among scientific questions and techniques. There are also some perspective articles on motivation in academia, an argument against the focus on research that seeks application and on life as a foreigner in Max Planck. And finally we have a fun article on the latest twitter trending topic among scientists on a confession spree.

Enjoy reading the issue.

Your Offspring Editorial Board

Steering Group

Felix Pithan, Andreea Scacioc, Julian Pritsch, Zainab Beiruti,
Natascha Hasenkamp, Jeffrey Hodgson

This year we have worked on further implementing the improvements achieved over previous years for PhD candidates of the Max-Planck-Society (MPS). We are trying to enforce the "Best Practice Guide for Doctoral Education" developed by the PhDnet and to improve the payment and conditions for contract holders and social security for stipend holders. A big task ahead of us is strengthening the PhDnet as an organisation for all PhD candidates in the MPS. Our hope is to have each institute being represented at the upcoming annual meeting.

The first major event of our term was the meeting with the MPS General Administration in February. We suggested a number of improvements to the standard PhD contracts, including a minimum pay of 65% TVöD-13 and granting contract holders the same number of vacation days as other MPS employees (29 instead of 20). We found that according to the MPS policy, contracts and stipends should initially be issued for three years. However, our enquires with local representatives indicate a widespread practice of using shorter funding periods, sometimes even below one year. We also raised the issue of widely varying stipend conditions for stipend holders funded by external grants not complying with MPS standards.

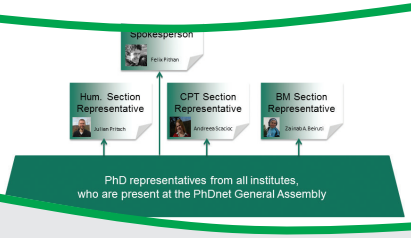
Due to continuous input and pressure from PhDnet over the last years, the health insurance subsidy for stipend holders was introduced in 2012. We decided to follow up on its implementation and the list of recommended health insurances given to PhD candidates. The recommendations given out by the general administration now include the advice to check health insurances for the exclusion of pre-existing conditions, pregnancy, child care and vaccines, regular check-ups, and a better coverage for the dental insurance, and mentions the risk of cheap travel insurances with strongly reduced coverage. Still, there is an important amount of work to be done to ensure that every PhD candidate in MPS gets appropriate health insurance. As of June 2013, only 577 stipend holders were receiving this subsidy. This means that many PhD candidates either do not have an appropriate insurance comparable to the statutory coverage or simply lose €100 per month by not applying for the subsidy they are entitled to.

Building on the previously existing relations outside MPS, we have been invited to the annual meetings of the Helmholtz Association and THESIS organization. We further represented PhDnet in the meeting of IMPRS coordinators in April. We have asked them to work on equal conditions for externally funded stipends, wherever possible, and to assist the new PhD candidates with administrative tasks such as getting insurances or with the residence permit application.

Moreover, we were invited to be members of the Presidential Commission on Scientific Offspring for the sessions in which PhD education was discussed. Taking into consideration the input and feedback from PhD representatives, we have prepared a statement for the commission, including many of the issues described above, but extending to work-life balance and the quality of supervision. The dialogue in the commission was focused on supervision, and we believe that the pressure on institutes to assure at least some elements of the PhDnet's "Best Practice Guide for Doctoral Education" is slowly rising.

The evaluation of both the institutes through the Scientific Advisory Boards and the IMPRSes will include more checks on good supervision in the future. If any element of good supervision is missing in your institute or department, and your directors are reluctant to implement them, either type of evaluation is certainly the right place to mention this (especially if you are told not to do so!).

Since early summer, we started giving a presentation on PhDnet and regulations about PhD education in MPS at a number of institutes. We would like to roll this out to reach all Max-Planck-Institutes in the coming months. Please contact us to have us come to your institute or to give the presentation yourself. We need the cooperation of everyone to make sure that crucial information regarding topics from health insurances to supervision reach every PhD candidate in the MPS. We are looking forward to meeting you at your respective institute or at this year's scientific event in Dresden or at the upcoming annual meeting in Goettingen!



Survey Group

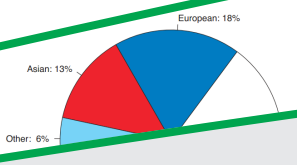
Julia Holzmann

Every second year the survey group questions PhD students at the Max Planck Society. We try to evaluate who the PhD students are, what their current situation is and whether they are happy with it or not. To understand the nature of this task better, it helps to take a look at the Max Planck Society itself.

The Max Planck Society is composed of numerous institutes, scattered mostly all over Germany. These institutes are divided in three sections (BM, CPT and GSH), which cover nearly every imaginable subject. But even institutes that are thematically or locally close, can differ from each other strongly. The reason for this is a philosophy, which is based on the Harnacks principle. Max Planck institutes are built around by world leading scientists, who receive the freedom to design research, staff and working environment with their own conceptions. This variety of concepts raises the challenge to identify individual as well as frequent problems amongst PhD students.

Therefore, the aim of this survey is to find out, what problems are shared by numerous PhD students and to give hints about their origin. This is the first step towards finding a solution or at least improving the situation.

The survey 2012 addressed often discussed matters for example the "Stipend vs Contracts" debate. It confirms that stipends are becoming a more prominent funding type. The survey discusses the validity of this statement, that international students would prefer a stipend over a contract. Another important topic is "Career plans and perspective of students". This survey also involves if and how supervisors support their students in making decisions concerning their future career. Last but not the least, a huge part of the survey highlights the working conditions of PhD students. Especially here, the differences between various institutes are apparent. Although overall most of the PhD students are happy about their situation and their supervision, an alarming proportion of typical stress induced illnesses occurs. We also asked how the working conditions could be improved to increase the scientific performance of the students. As mentioned earlier, there



Seminar Group

Prateek Mahalwar

can be a great discrepancy between institutes. That is why the survey shows some institutes that received the most positive responses in different categories.

Presumably the new survey group formed at the PhDnet meeting 2013 will have the task to design a new survey. This will happen on the basis of previous surveys, current discussions and their own creativity. If you are interested in this task, do not hesitate to join.

Your Survey Group,

Rosa Glöckner, Daniel Herde, Julia Holzmann, Stefan Siegert and Pablo Sartori Velasco

The PhDnet Seminar Group would like to remind you of the unique opportunity to organize a soft skill seminar at your institute. This year, students at the MPI Goettingen, Berlin and Munich benefited from a seminar in scientific writing, and seminars in publication and grant writing are planned for the Fritz-Haber-Institute and MPI Tuebingen. In past years, seminars on poster presentation, project management, career opportunities, and other important soft skills have taken place. A substantial portion of our yearly budget remains, so don't miss the opportunity to host a seminar! Please do not hesitate to contact us with questions or seminar requests; we will be happy to assist you with the application process, and you will then be free to book a trainer and a room for the event. PhDnet seminar group could also help you to contact a trainer. We look forward to hearing from you!

Secretary Group

Andreea Scacioc

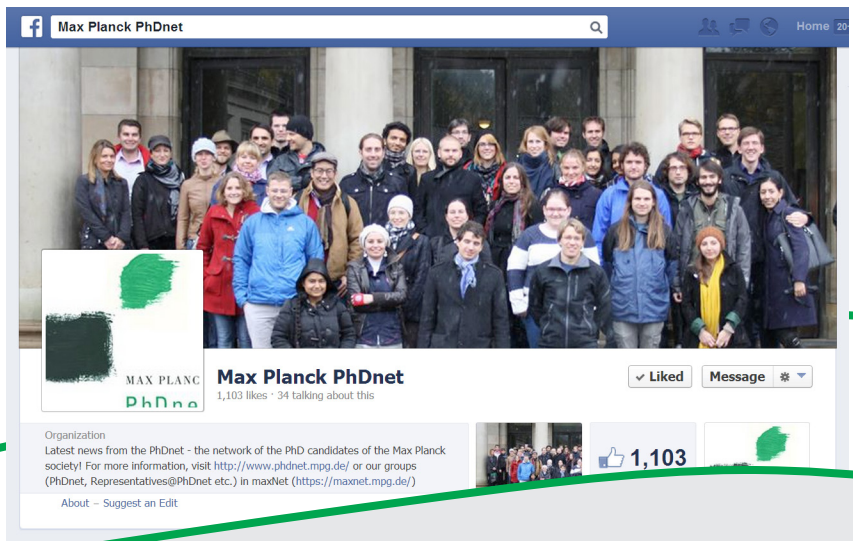
This year, the Secretary Group continued to fulfill its role of collecting and disseminating important information for the PhD candidates of the Max-Planck-Society (MPS). This goal was accomplished in two ways: besides putting the information directly on the PhDnet webpage for everyone to access it any time, local institutes were visited for direct information dissemination via presentations.

The PhDnet is formed by all of you, that is, more than 5000 PhD candidates of the MPS. Starting this year, members of the secretary and steering group started visiting local institutes and talking directly to the people we stand for as the PhDnet. Our hope is that once we visit institutes with active representatives, these representatives will take over the presentation and would visit the nearby institutes. Together we can reach all the institutes!

Besides this new way of spreading information, the secretary group put together all the information collected by previous secretary groups and new information obtained from the general administration of the MPS and uploaded it on our webpage (http://www.phdnet.mpg.de/cms/). This was accomplished with constant help of the webgroup, to whom we are grateful for their prompt cooperation.

Your Secretary Group,

Jeffrey Hodgson, Andreea Scacioc, Felix Pithan, Natascha Hasenkamp, Sneha Kumar, Stefan Wötzel and Zainab Beiruti



Web Group

Alexander Haverkamp

Phrasing it positively, we can say that this year's web group embraced full diversity of the Max Planck society, which included people from theoretical astrophysicists as well as behavioral biologists, a nice mix of IT experts and amateurs. This mix certainly proved that, for being in the web group you do not actually need to know about computers but it certainly helps if some of your fellow members do.

A special thanks goes to Philipp, head of the web group for the last year, whose help was priceless to the continuation of this year's work. Without his experienced expertise we would have found ourselves badly stuck several times. The other person who kept us going was Andreea Scacioc, who provided us all updates from the steering group and kept us busy for most of the time.

Bringing up news and general information on the website was also our main focus for this year. Timing the releases on our web page, along with notifications on facebook and MaxNet, done by Andreea, was an important aspect of this, which we hoped has helped to draw attention of the PhD students to some important issues.

Strengthening the interconnection of the information released on the PhDnet website and on facebook might be something we would encourage to pursue for the coming years. Driven by Johannes, we also embarked on creating a new mailing list to offer an alternative way for PhD students to seek advice from the steering group or others students. Even though, this list was started this year, its promotion and implementation will remain a task for the future.

Finally we were happy with the number of people sticking around on the PhDnet website and our facebook page. We would encourage every PhD student to join us there as well.

With best regards, Your web group (Johannes Buchner, Philipp Edelmann and Alexander Haverkamp)


Visions in Science
Shaping the Future
Annual PhDnet Conference
for Junior Scientists of the Max Planck Society
Dresden, 22.-24.09.2013
Max Planck Institute of
Molecular Cell Biology and Genetics
World-leading scientists will present their personal VISIONS IN SCIENCE and discuss with the audience in an informal atmosphere
Confirmed speakers:
Prof. Dr. Felix Ekardt – Sustainability and climate change politics
Prof. Dr. Rainer Goebel – Brain Computer Interfaces
Prof. Dr. Thomas Hamacher – Energy Economy and Application Technology
Prof. Dr. Dirk Helbing – Economics 2.0
Prof. Dr. Reinhard Jahn – The future of next generation scientists
Prof. Dr. Victor Smetacek – Biological CO_2 deposition in the ocean
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Energizing Chemistry
TÜV SÜD
Choose certainty. Add value.
BASF
The Chemical Company
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MAX-PLANCK-GESELLSCHAFT

The 2013 PhDnet Event

Norman Gerstner

The second "Visions in Science" conference is ready for its guests!

Under the theme "Shaping the Future", junior scientists will discuss about the potential and implications of science in solving complex problems which our global society will face in the near future. After the successful 2012 world premier of the "Visions in Science" conference series at the MPI for Microbiology in Bremen, we are happy to invite you to an outstanding follow-up event this September to the MPI-CBG in Dresden. Again, the conference features 7 distinguished scientists who are in the middle of a very successful academic career, but also hold strong connections to more applied fields in industry and society. They will share their visions on distinct but related topics, ranging from the consequences of a globally connected world on local societies, over the future of energy supply to the impact of mankind on the world climate.

You will have plenty of opportunities talking to each other and the speakers during discussion groups, the panel discussion and the breaks in between. We will provide the necessary atmosphere: stimulating, relaxing and nice food.

On top of all of that, there will be the first PhDnet Science Slam! PhD students will present their ideas in a short slam talk and battle in the art of convincing for understanding, fame and the prize money (up to 250 €)!

And finally the social event – a club, a party and people going wild on the dance floor, still debating their ideas and concepts, finding agreement or critics, but all across cultures and ethnic boundaries. If you are a PhD student at one of the many MPIs, or a student affiliated with an IMPRS, or doing your thesis at a university, come to Dresden to meet, discuss and share ideas and motivations.

We will be happy to meet you in Dresden!

Your organizing committee
Norman Gerstner, Sabine Keiber, Ilka Vosteen, Dong-Seon Chang, Ben Becker, Prateek Mahalwar

General Meeting 2013

Markus Untenberger, Tina Kling



General Meeting 2012, Tübingen

The PhDnet General Meeting is where all PhDnet representatives from Max-Planck Institutes all over Germany gather to discuss the progress made by this year's Steering Group and decide over the course for next year.

This includes the election of a new Steering Group as well as formation of the other PhDnet organs. Also important representatives of the Max-Planck Society, like Vice-President Jäckle, or Prof. Jahn will discuss current issues with us.

The accommodation of the first 100 registered representatives will be organized and payed by us.

We look forward to welcome you at Göttingen! Please watch out for our official invitation and registration start at the beginning of September.

MAX-PLANCK-GESELLSCHAFT

Join now!

MAX PLANCK PhDnet

12th PhDnet General Meeting

At the **12th annual General Meeting**, you will meet PhD students from all institutes, exchange on ideas for PhD student activities and discuss what you think has to change about PhD life. You will have the chance of a plenary discussion with stakeholders from Max Planck and science policy. You can participate in workshops and discuss issues about payment, supervision, work life balance, career & family and more. You are also invited to get involved in one of the PhDnet working groups or even be elected into next years Steering Committee.

The **Max Planck PhDnet** is the network of all PhD students within the Max Planck Society. It's all about interdisciplinary exchange, improving doctoral working conditions and education, representing our interest within the Max Planck Society and beyond. And - of course - it's a lot of fun!

Come and visit the **science city Göttingen**, which has spawn famous scientists as C.F. Gauß and G. C. Lichtenberg and is connected to the CVs of 40 Nobel laureates.
The meeting will take place at the Max Planck Institute for Experimental Medicine.

More information and registration at

www.phdnet.mpg.de

What keeps you motivated?

Divykriti Chopra

Motivation, the mother of all desires, the psychological feature that stimulates, maintains and regulates behaviour, can be very elusive. Motivation to a person is like fuel to a car. Without it you can never finish a task, let alone begin it in the truest sense.

Motivation comes in different forms to a person. It can be based on extrinsic or intrinsic factors; conscious or unconscious states; can be short-term or long-term and so forth. Open any book on psychology and you'll have a long list on the different types of motivation. For example, my writing this article is inspired mostly by the glaring deadline on my calendar. Such short-term extrinsic factors cannot encourage a person for a very long time. Often it happens that, while relying on such short-term bursts of inspiration, people tend to come face to face with the burnout phenomenon.

Our research as scientists is glued to the notion of motivation. In research, no stone can be turned unless there is a strong impetus behind it.

However, more frequently than desired, the dreaded cloud of demotivation hangs heavy on our shoulders. We often complain of loss of interest to our peers. Have you ever thought, as to what keeps your fellow colleagues, supervisors and the big bosses sitting in their cosy offices stimulated? Is their state similar to yours, as you work in the same field, or is it entirely different?

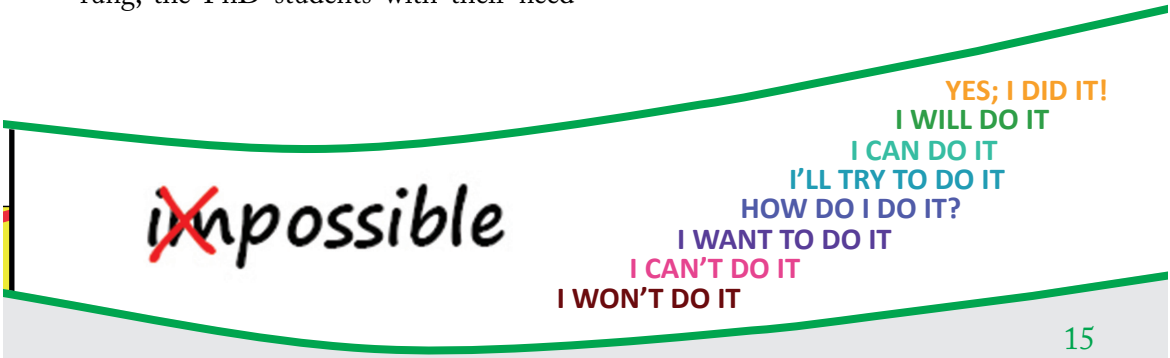
In an attempt to answer this question, I undertook a social experiment. I sent an email to the mailing list of my institute, asking the recipients for their reasons to wake up in the morning, come to the lab and enjoy their work on a daily basis. In short, what kept them motivated to do academic science? Like a usual trend with such emails, many ignored it. A few who met me by chance casually mentioned the so called "sad state" of events in their project and that answering the email was just not possible as it would make them even more demoralised. Nevertheless, of all the replies I received, an interesting pattern could be observed.

The professors and group leaders i.e. people with permanent positions, stated their love for science and the fascination of discovering things as their prime motivators, besides bringing in external funding for their group and themselves.

The PhD students, on the other hand, identified quite different factors as their stimulus. These ranged from meeting deadlines, to facing unexpected results and success. Other factors included commitment, competition and the desire to enjoy the company of their colleagues. Some mentioned factors like being in contact with the international community, travelling the world and having liberty in deciding the course of their project. Finally, the belief that working in a research institute is more relaxing than in industry kept the students motivated.

After pondering on these intriguing observations, it seems to me that, there is a rise in the level of motivation with increasing scientific hierarchy. The lowest of the rung, the PhD students with their need to succeed and obligation to their goals, predominantly use extrinsic factors and high level of discipline to stay motivated. Shortage of any of these factors is generally a cause for them to be disheartened and in extreme cases quit. As you go towards higher ranks, professors and group leaders, the people with a job security, have intrinsic factors of being captivated, like the joy of a new discovery, which keeps them going. This suggests that, for climbing the ladder of your career, your mind needs to climb the ladder of motivation.

Stay motivated! Stay happy!



On the Mutualism of Scientific Questions and Techniques: FISH as an example

Zainab Beiruti

After spending four years in the Max Planck Institute for Marine Microbiology in Bremen, working in different labs, learning many things, using advanced techniques, I asked myself a question that might interest junior scientists who are planning their careers after PhD: How about the interaction between answering a certain research question and the technique which is used to answer it? Or in other words: Is there a mutual relationship - a sort of symbiosis - between questions and techniques?

I then discussed this topic with Prof. Dr. Rudolf Amann, director of the Molecular Ecology department at MPI Bremen with respect to FISH (Fluorescence In Situ Hybridization). FISH involves the hybridization of cells in situ with fluorescently labeled nucleic acid probes.

Prof. Amann dedicated much of his scientific career for the development and application of this technique, in order to conduct research in microbial ecology. His involvement with FISH started in 1988 as a postdoctoral researcher in the laboratory of Prof. Dr. David Stahl at the University of Illinois. He went there with the goal of developing single cell identification of bacteria by FISH. Prof. Stahl was interested in using the ribosomal RNA in molecular microbial ecology. He was one of the first scientists who combined in situ ecology with microbiology.

In the US, Prof. Amann was involved in two projects: one was a biofilm project on sulfate reducing bacteria and the other one addressed the cattle rumen microbiome looking into fiber digestion. It actually took nine very long months before the first FISH experiment worked. There were many challenges to make the method work, like the fixation step and how it must be varied for different Bacteria and Archaea. Only then the abundance of particular species could be counted in a truly quantitative way and single microbial cells were identified in their habitats. Prof. Amann summarized his postdoctoral stay in the US by stating: “It was very successful. The FISH method worked out quite well and I learned a lot on microbial ecology”.

The story continued when he came back to Germany to the Technical University of Munich as a group leader. He applied the identification and visualizing of cells to more

Prof. Dr. Rudolf Amann

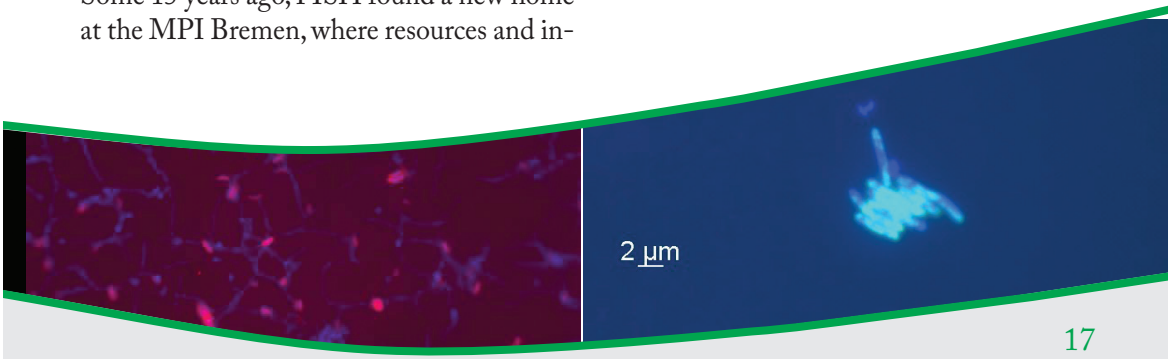
and more complex environments, like the microbial communities in activated sludge used for waste water treatment. It was a particular goal also to identify, visualize and quantify yet uncultured bacteria, a task that required lots of method development.

When I asked Prof. Amann whether technical progress resulted in new research questions or whether research requirements enforced FISH improvements, he answered "Both, this was combined. When any established protocol failed in quantifying novel microbes, the method has to be improved. You just require method development towards a stable quantitative methodology. Yet, the moment you have an improved FISH method at hand, new microbial worlds become accessible".

He added that when the method is stable and reproducible, it will be possible to answer central biological questions. So, new research questions require modifications of existing protocols which subsequently enable answers that create new questions. Some 15 years ago, FISH found a new home at the MPI Bremen, where resources and interesting marine habitats were plentiful. Its application to interdisciplinary studies with biogeochemists and microbiologists resulted in novel insights into the largest ecosystems of Earth, the oceans.

Nowadays, FISH is used in environmental sciences, the medical field and in industry. I asked Prof. Amann how and when he is spreading this newly developed FISH technique. He said that it is important to teach it as early as possible in high quality method courses that are not restricted to the institute, but also open to other people. Another factor is open access of papers and databases. He also referred to the role of young scientists in exporting the method based on their methodological knowledge.

Ultimately, after discussing with Prof. Amann, I found that the mutualism of techniques and scientific questions is not similar to the question, "Which came first: the chicken or the egg?". It is rather something which goes hand in hand and must be planned in order to advance knowledge.



Nature Conservation

Natascha Hasenkamp

Conservation biology is a highly integrative science that focuses on biodiversity and its maintenance for human welfare. The term biodiversity refers to the variability among living organisms on different levels e.g. between individuals, groups of individuals, species or ecosystems. All the different levels of biodiversity are regarded as necessary for the survival of life and every organism is strongly dependent on it.

It is a broad field that includes not only a variety of biological disciplines like population genetics and ecology, but also other natural sciences, social sciences and economics. One of the major challenges and entitlements of conservation biology is, that scientific information is used effectively for practicing nature conservation. Today, the central questions in conservation biology are: How processes in nature can be maintained in the long run and how nature can be used in a sustainable manner? Common research questions are, for example: How is the size and structure of groups of individuals developing, what are the causes behind the decrease in the size of groups and how long will they be able to survive under this development?

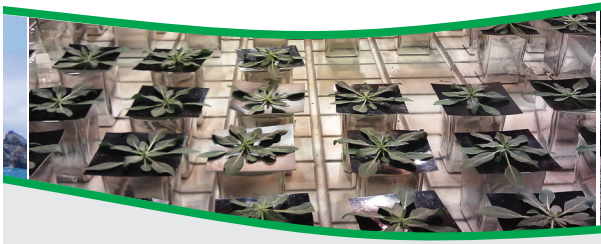
One of the many examples for research in this area is a project on the Loggerhead Sea Turtle, at the Cape Verde archipelago, which is conducted by the group for evolutionary and conservation genetics at GEOMAR Helmholtz Centre for Ocean Research. This turtle species is endangered as their population size is decreasing, due to poaching, fishery, by-catch, coastal development, increasing pollution and climate change. The researchers aim to understand the underlying processes, shaping the population structure and functioning, monitor the environments in which animals are living throughout their life and how they reproduce. All the gathered information about the animals will be used to establish robust conservation programs to enable more turtles to complete their life cycle and to contribute to all related processes.

Knowledge from conservation biology studies is also often implemented to assess the effects of construction sites or large-scale forest clearances. If ecosystems or endangered species are negatively affected by such measures, the effects often have to be balanced according to certain rules and laws or the strategy has to be modified to reduce possible effects. Also, the status of species as endangered and the assessment of effects on ecosystems is often based on extensive research.

There are also examples that demonstrate how important the implementation of knowledge from research in conservation measures would have been. This is the case for some of the intentional and unintentional introductions of foreign (alien) species to new places. Cats, for example, have been introduced to a lot of islands to reduce the number of mice that were brought there unintentionally. This practice has led to the extinction of a lot of flightless birds that often occur on islands and do not know cats as predators. In contrast to mice, these birds do not run away when a cat approaches them and are an easier prey.

There are also a lot more questions and problems that are addressed by conservation biologists all over the world to improve the application of conservation measures and to develop strategies for the sustainable use of nature. Altogether, conservation biology is an interdisciplinary basic research field, but also the interest in knowledge about it is interdisciplinary and involves biology, economics, politics and more. This broadly based motivation to study conservation biology questions makes a lot of research in this field applicable and this is one reason why this topic made its way in this year's issue of Offspring.

http://www.geomar.de/en/mitarbeiter/fb3/ev/ceizaguirre/



German public authorities and the Nazi era: recent investigations

Gesine Güldemund
Ulrike Schillinger

The general interest in the role of German public authorities during the Nazi era has increased in recent years. In particular, the results of a study on the history of the Federal Foreign Office, published in 2010, hit the headlines. To learn more about this issue, we talked to Stefan Ruppert, who is both a member of the German Bundestag and a researcher at the MPI for European Legal History.

Offspring: Several German public authorities have initiated investigations on the role they played during National Socialism. Could you please give us an overview of the authorities which have already begun their investigations?

Stefan Ruppert: A number of federal ministries and federal authorities have already begun to investigate their histories during National Socialism as well as their personal and institutional continuity, between 1945 and the early years of the Federal Republic of Germany. These ministries include the Federal Foreign Office, Federal Ministry of Economy and Technology, Federal Ministry of Justice, Federal Ministry of Finance, Federal Ministry of Food, Agriculture and Consumer Protection, Federal Ministry of Defence, and the Federal Ministry of Transport, Building and Urban Development. With regard to federal authorities, the investigations of the Federal Criminal Police Office, Federal Office for the Protection of the Constitution and the Federal Intelligence Service are especially worth mentioning.

O.: What do you think has prompted these recent investigations– 60 years after the beginning of the Nazi era? Why did it take so long to get the investigations started? Also, what is the significance of research on this issue today?

S.R.: Until now, the limited access to historical files and documents has been one of the most important reasons as to why the investigations were initiated just recently. This was due to longer terms of secrecy and the existence of interests warranting protection. In addition, there has been reluctance within some authorities, which has eventually been dropped or overcome over the last years. Historical research on the Nazi era is of crucial importance. Besides the question

of whether there were personal and institutional continuities between the Nazi era and the early years of the Federal Republic, it is important to gain knowledge of how the Federal Republic has become a stable democracy, in spite of these continuities, and in contrast to the development in the GDR.

O.: Who is entrusted with investigating the matter? Do you consider it potentially problematic that the researchers were assigned by the same institutions they are investigating?

S.R.: For most of the part, the federal ministries and federal authorities have appointed independent commissions which investigate the history of the respective institution. This is problematic, in fact, because even the slightest impression of state-controlled and politically exploited contract research must be avoided in any case. That is why academic freedom is of important value for me and for the Free Democratic Party. Politically initiated commissions to investigate different aspects of National Socialism can only be the first step. Furthermore, it is important that a research-friendly environment is built up within the ministries and authorities, which supports the academic self-organisation and stimulates single case studies providing new insights. In order to achieve this, I have successfully initiated a sweeping reform of the Federal Archives Act and achieved better access to the files of the Federal Constitutional Court. I was personally committed to the reform of the Federal Constitutional Court Act, as the court, while taking path-breaking decisions, has left its marks on the constitutional reality and constitutional understanding of the early years of the Federal Republic of Germany.

O.: Did the results surprise you? Why or why not?

S.R.: With regard to the investigations on the history of the Federal Ministries and Federal authorities, we are still in the early stages of research. Yet I am quite sure that there will be very interesting results in the future. From my point of view, the research on the history of the Federal Foreign Office was remarkable, since the findings differentiated the role the Federal Foreign Office played during the Nazi era, and

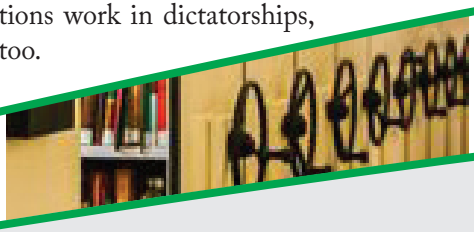
led to a re-evaluation of the ministry in public. The public discussion about the book was as important to me as the prior decision to investigate the history of the Federal Foreign Office in the first place. After the publication of the study, the image of the ministry opposing central aspects of Nazi politics could not be maintained anymore.

O.: What are the consequences of the research results? Have there been concrete impacts on offenders as well as victims? Do the results change the perception of German authorities both in Germany and abroad?

S.R.: It is too early to talk about the consequences of the historical research. However, I think that there will be an interesting development with regard to personal as well as institutional aspects of the investigations. Within the Federal Democratic Party, discussions on the compensation of victims have been fuelled by the historical investigations recently. In any case, upcoming publications will foster further discussions in the academic world and in public. This will be very beneficial for a comprehensive review of the National Socialism and the history of the early years of the Federal Republic. Besides, it is crucial to understand how institutions work in dictatorships, too.

O.: Mr. Ruppert, thank you for the interview!

Stefan Ruppert is member of the German Bundestag (since 2009), for the FDP (Free Democratic Party) he serves as parliamentary secretary of the parliamentary group (Parlamentarischer Geschäftsführer), is a member of the Committee on Internal Affairs and an alternate member of both the Committee on Legal Affairs and the Committee for the Scrutiny of Elections, Immunity and the Rules of Procedure. He is also a researcher at the MPI for European Legal History. For his PhD thesis, he was rewarded the Otto Hahn medal. From 2001 to 2003 he was research associate at the German Federal Constitutional Court.



Why would you apply your research?

Andreea Scacioc

"Scientific work must not be considered from the point of view of the direct usefulness of it. It must be done for itself, for the beauty of science, and then there is always the chance that a scientific discovery may become like the radium a benefit for humanity." Marie Curie

When I have seen the theme of this year's Offspring "How would you apply your research?", I asked myself why people like us, doing fundamental science would engage in this exercise. One reason might be the limited financial resources we have to engage in understanding the world. One must choose which question is worth answering. The theme of this issue is an exercise for writing convincing grant applications.

However, I have another question for you: Is the potential application of your research a good criterion for doing that research? Or should we challenge the current culture of science that constrains what we research based on the potential impact on the future?

In trying to answer this question, I want to tell you how I chose fundamental science. As a child, I was mainly watching science programs on TV or bugging my mother with questions. At three I asked her: "Where do babies come from?". She said the stork brings them. "From where?", I followed. No answer. I figured it out that storks travel seasonally to the warmer countries. I imagined they went to China so that had to be the origin of babies. It also explains why it is the most populated country. It is closer for the storks to bring babies there. But what are babies made off? I knew that around 70% of the human body is made of water. Rice plantations have lots of water. Hence, babies are made of water, rice and some clay to hold it together. My first hypothesis! Huge disappointment followed finding out the truth. But by then I moved to my next wonder: if cooking oil and margarine are both made of vegetal fats, why is one liquid and the other one solid? My mother was completely puzzled on this one. When I figured out that the answer lays in the different degrees of saturation on carbon-carbon bonds, I shared it with her. She was not excited. My mum

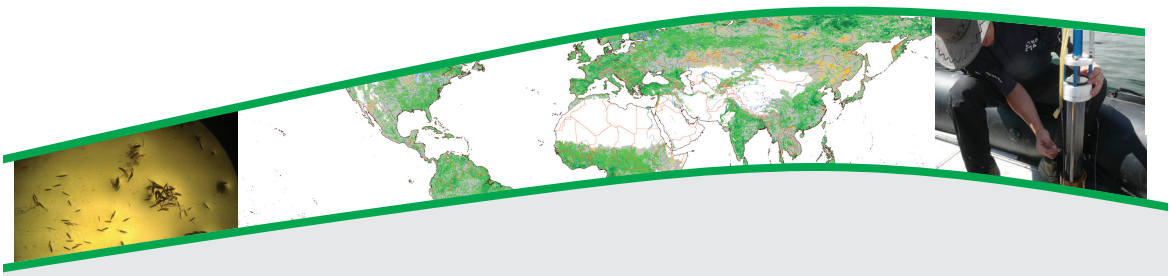
was different. She did not care either about how different gadgets in the house, including the TV look inside. She only cared about the mess that followed my research. My mum was the funding agency that did not approve my scientific questions.

The childhood questions I chose to talk about here show that I was not interested in the application of the knowledge unraveled. Me knowing about babies, margarine or the inside of the TV did not improve their application, but satisfied my curiosity. Call me a big baby, but now I am the same person.

In a world in which everybody talks about the application of science, I wondered whether I am not alone. I found others like me. I choose to talk here about Neil deGrasse Tyson, David Miller and Marc Kirschner.

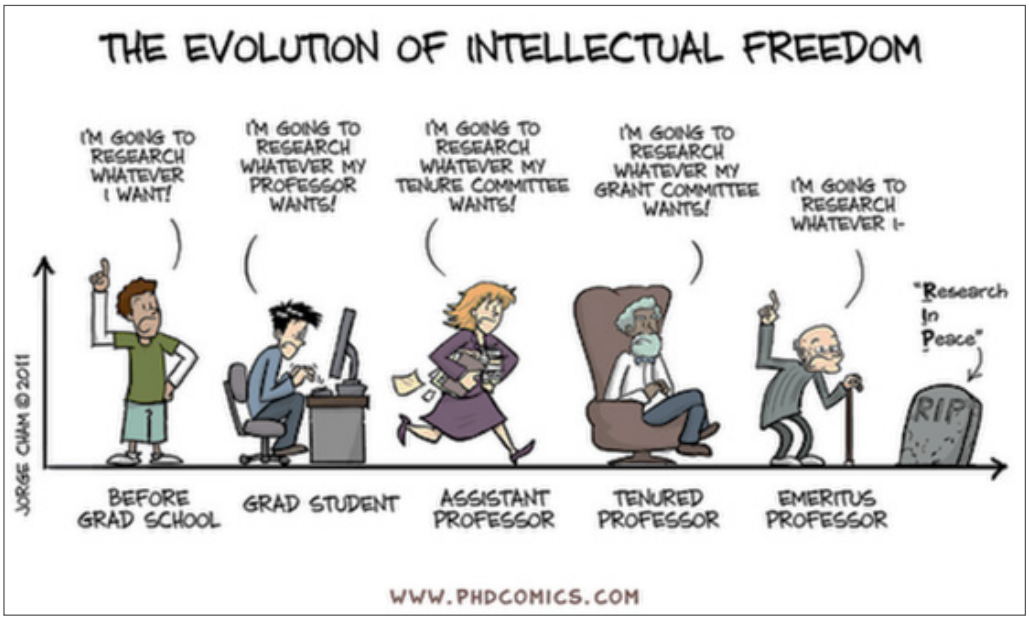
Neil deGrasse Tyson is an American astrophysicist. In 2012, he gave a testimony in front of a committee of the US Senate about the cuts in the budget of NASA. He talked about the necessity to explore Mars and send people to the Moon again. He said: "Exploration of the unknown might not strike everyone as a priority. Yet audacious visions have the power to alter mind-states—to change assumptions of what is possible. When a nation permits itself to dream big, those dreams pervade its citizens' ambitions." So, exploring is also about the dream of a better tomorrow. But he also mentioned those practical applications resulted as a side effect of the race to the Moon: scratch resistant lenses, cordless power tools, Tempurfoam, cochlear implants, miniaturized electronics, etc.

Hence, any exploration deemed practical or not, has the potential for great applications. But, is science essential for technological progress? According to David Miller, the answer is no. He said, in a recent lecture he held at MPI for Experimental Medicine that "science may provide inspiration for technical advances. But also dreams and beer do so." He compared HIV and small pox viruses. A quarter of century after sequencing the genome and understanding every protein inside the HIV virus, we still have no vaccine. However, small pox was eradicated without knowing too much about it. Miller also talked about the dan-



ger of "putting all your eggs in one basket". What he meant is better explained by Marc Kirschner in his Science editorial, "A Perverted View of Impact" from June 2013: "Focusing resources narrowly on areas that are deemed impactful, while ignoring many others, decreases diversity, making science less productive."

In his editorial, Kirschner talked about how DNA restriction enzymes or carbon dating were not exciting from the beginning, but later had a huge impact on many fields. This is why we should be honest to ourselves and admit that we are not able to predict all applications our science might have. This is because we do not have the overview of all knowledge or all fields of science. We do not know what else will be uncovered that can complement our discovery towards a greater goal. Hence, it is hard to control the future application of our research. What we can do is to stick to "doing what's never been done before" because it "is intellectually seductive (whether deemed practical or not), and innovation follows, just as day follows night. When you innovate, you lead the world, and concerns over tariffs and trade imbalances evaporate", as Neil deGrasse Tyson said.



„Piled Higher and Deeper" by Jorge Cham

#OverlyHonestMethods

Divykriti Chopra

Beginning of this year, our peers "the scientists", took to twitter and its gift of "hash tag", as a devote Christian would to a confession box. Hoping to get rid of all their sins, within no time #OverlyHonestMethods was one of the trending topics on the web. Hilarious, at times preposterous and sometimes concerning realities behind the closed, almost sealed doors of the scientific world were laid bare open in this popular hash tag. These scientific confessions have quickly become an ever growing catalogue of amusing anecdotes that tend to reflect the true nature of scientific decision making, particularly of physical and life sciences and lies uneasily on the margins of methodological misdemeanor.

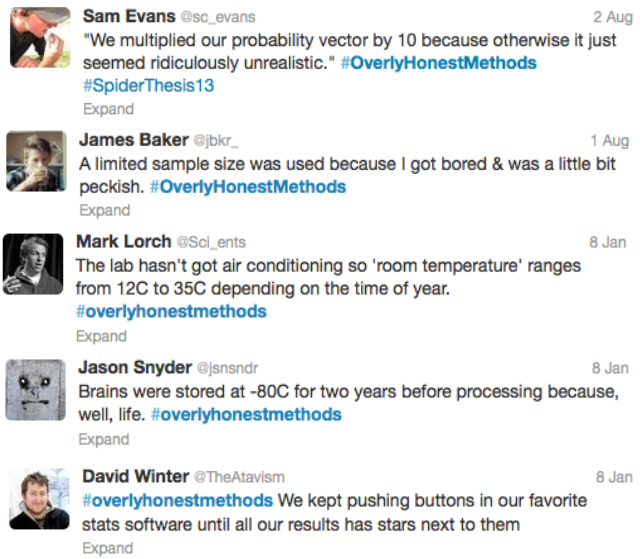
let me introduce you to #OverlyHonestMethods, a hash tag started by @dr_leigh. The first two tweets stirred up a storm of researchers confessing to the secrets behind their detailed protocols.

For those of you who have had somehow failed to notice these developments over more than half a year, well first of all congratulations! You've managed to show procrastination the door, Bravo! And secondly, these were followed by numerous such admissions on the social media website. Here is a little collection to tickle your funny bone.

Some of these tweets can be reminiscent of casual conversations in the corridors with next-door lab members, which all of us have experienced. Even though all these confessions show how scientists deal with frustrations well abundant in a lab, with sarcasm and jokes, and arbitrary decisions they sometimes make, but some of the posts are worrisome as well. The posts pertaining to selective data representation, manipulative statistics, problems with data reproducibility, techniques used to distract from lack of data, etc., strongly highlight the bias, subjectivity and scrappiness of scientific research.

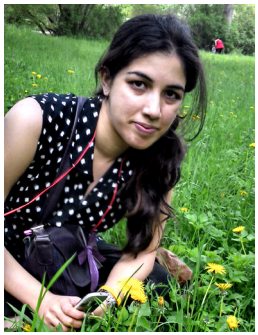
Science is built on the pillars of objectivity, rationality, consistency and reproducibility. Although these confessions might not all be true but still they do raise a question of what might be the implications of them on the standards of our scientific methods? Imagine how would an editor of a scientific journal react on finding some of these posts linked to papers previously published? Also, how would the general public, the non-scientific community react to these confessions, knowing that most of the research is public funded?

In my opinion #OverlyHonestMethods is just an outlet for researchers to accept that scientific methods, like other things in human life are not perfect, no matter how hard they strive to make them so. Will these confessions/posts challenge the blind faith in scientific objectivity or will this refreshing candour do some good to science? Either ways the scientific community needs to have a thoughtful discussion on this matter.



Settling in ... the Max Planck and Germany – A few impressions

Purva Kulkarni
MPI for Chemical Ecology
Indian National



Flying twice to Germany in two different cities for interviews in two different graduate schools, I somehow knew that Germany is the place where I will fulfill my research dreams. And, exactly six months back from today, was my first day in Germany as a PhD student at the Max Planck Institute for Chemical Ecology. As I sit down to write this article, there is a flutter of thoughts and incidents racing through my mind, and here are a few impressions, right from the day I arrived.

A few seconds before my flight landed, the snow covered Frankfurt city looked majestic from the little aircraft window. I felt amazed and excited as it was my first time to see an ocean of white snow all over the place. But, the reality came as soon as I set my foot out of the city-like edifice of the Frankfurt am Main Flughafen. The chilling cold appeared to grasp me all over and made me feel as if I was walking in an enormous freezer. But the excitement to reach my new work place and meet new people kept me going, without any significant happenings on my way from Frankfurt to Jena.

With my jet lag finally behind me, it was time to look around. My first few days went looking at things wide eyed and appreciating how everything here in Germany works. I was amazed to see city buses and trams running with minute's precision. A must mention, is the trash disposal strategy, which is quite a science in itself. Also, included were things like several bureaucratic procedures which, thanks to the coordinator at the Max Planck, were made very much

streamlined and convenient. The initial days started pretty well, as it was a wonderful experience to get to know people from all over the world, all in all, a creative cosmos working on interdisciplinary science.

Stepping out of the comfort zone of my guest house at the Max Planck, came the much dreaded search for an apartment to live in. And, as many people said, it takes a long time to find a good living place in a University city like Jena. My search went on, with a couple of encounters with native German speakers (not knowing English), making me fully dependent on google translate (..sigh!). Thats when I decided to learn the language, to ease the communication barrier. Although it was rocky at first, but now I can order food and shop conveniently at supermarkets, with my newly acquired German language skills.

Coming from India, a land with different eating habits and meals overloaded with spices, food in Germany was a little difficult for my Indian palate. Being a vegetarian, the first thing I learned was to point towards food in the mensa and ask "Vegetarisch?". Although there are less options for vegetarians, but as time has passed, I have gradually developed a taste for different menus available on the speisekarte.

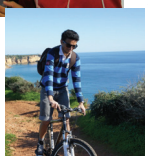
Jena, being a foreign place a few months back, now feels more like home. I pretty much feel well-jelled with the system now, thanks to my supervisor and wonderful colleagues for making this possible. By this time, I have already played tourist by visiting a couple of cities, went on a tiring but eventful bike tour with my work group and also went camping, something which I did for the first time. Life so far is good :)

So here I go, embarking on the next 3-4 years, with a research goal set in mind, and with an aim to live this life as a PhD student at its best. I am looking forward for more fun, learning new things, meeting new people and to get fully absorbed into my Arbeitsgruppe.



The Offspring Team at Work

Ashish Malik

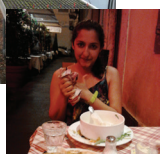


I always need some distractions from work. So, when I am not occupied with my PhD project on soil microbial ecology and carbon cycling, I like to keep myself busy with other things like 'Offspring'. Being part of the PhDnet has been very fulfilling in terms of new perspectives and experiences. And off course it was fun!

Natascha Hasenkamp

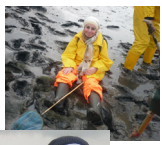
For my PhD in evolutionary genetics I spend most of my time pipetting in the lab or analyzing data. This year I also enjoyed investing time into PhDnet-work as a member of the offspring group and the financial officer of PhDnet. Due to all the different tasks which I have had to manage this year, I have learned something new every day about evolutionary genetics, science and politics.

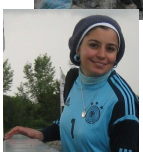
Divykriti Chopra



One thing I've learnt through my PhD is that besides the intellect you need passion to survive. I am doing my PhD in developmental biology and I love working with plants. However there are still times when I'm just hanging in there, waiting for the storm of frustration to pass. Meanwhile, having writing as a hobby helped me pen the articles for Offspring.

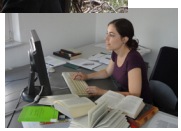
Zainab Beiruti





In my childhood I was dreaming of being a writer. But, I ended up being a biologist. I had a long time until I got adapted but there was no regret. Yet science wrote a great chapter in my life including all pathways and techniques I learned, laboratories in which I worked, and lovely people I met; motivating me to write my first novel.

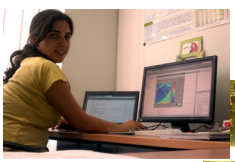
Gesine Güldemund

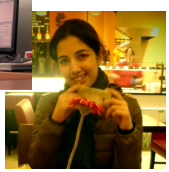


I am doing my PhD at the Max Planck Institute for European Legal History. This is my second year as part of the PhDnet Offspring Group. I had a lot of fun at our meetups in Tübingen and Frankfurt, and I hope that this year's issue is informative and entertaining.

Purva Kulkarni

Working in the bioinformatics department, I usually write codes and scripts for analyzing volumes of experimental data. When it came to writing an article for Offspring, I was excited and decided to join the Offspring group. Being a new bee at the Max Planck, I had different impressions of the place, and I really enjoyed penning them down.





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