ISSUE 2021

The Offspring Magazine

A Publication of the **Max Planck PhDnet**

The PhD - So much more than a title

In a long-distance relationship with my data

Unfinished PhD projects - What happens to them?

#IchBinHanna

Letter from the desk of the Editor-in-Chief

Well, another year, another magazine, right? Not quite!!! This year is very different because it has been filled with the highest of highs and the depths of controversy at the same time. We, at the Offspring Magazine, strive on a weekly basis to produce interesting episodes for the podcast, to publish articles for the magazine, both with a high standard of fact checking as well as very high attention to detail, the way we also do our science as doctoral researchers. We've understood that undertaking this PhD journey and doing research has molded our way of thinking and what we demand from ourselves. So this year, we focus on topics that arise from our unique PhD perspective to help the world better understand our experiences.

For me personally, this year's Offspring Magazine and Podcast have truly developed wings of their own and reached the stratosphere. Our team expanded multifold and brought fresh ideas to move forward. With our science outreach podcast episodes, as well as our interest in combating misinformation about vaccines, we reached a wider audience beyond the PhD community connecting to the general public more than ever before. As scientists, the science part comes relatively easy to us, but the *talking science* part seems more difficult. *Why do scientists in the news sound so boring? Why can't they make science appear as interesting as it really is? What's stopping them from communicating better?* These were our fundamental questions when we approached researchers for the interviews. We wanted to stoke the fascination we had towards these topics as kids, so we formulated specific questions to ensure that our interviewees had fun answering the questions and shared their excitement with the audience.

We realized that our PhD is not exactly what we thought it was when we started. We understood that science comes and goes everyday like the Sun and hence we decided to talk a little bit about our routine. As you start your PhD, it is common to take on more than you can handle. Read more about it in **"Gone But Not Forgotten: Our Unfinished PhD Projects".** We can't always physically be there for our science, though, as sometimes our data comes from outside the lab, from a location far, far away. This led us to write the article **"In a long-distance relationship with my data"**. So many of our strengths and shortcomings become obvious to us during the PhD, yet there is so much more we learn in the process that we are not consciously aware of - maybe **"The PhD - so much more than a title"** can uncover some of them for you.

The path we take as PhDs is not straight and it is filled with many pitfalls. We keep our focus on the topics of mental health and sustainability, making sure that the attention they deserve is never lost. We did a recap of how sustainable our work in the lab is in **"Trash for the sake of science?"**. In "**Good science is sustainable science",** we aired our opinions on the discrepancy between what scientists know about sustainability and the failure of large scientific organizations to take it seriously. Mental health continues to be a pressing issue and, in this issue, we highlight the **Mental Health Awareness Week 2021**, as well as the latest initiative to create a welcoming environment in **"Safer Spaces"**. Living through the pandemic means that we still have to deal with Zoom meetings on a regular basis, read our opinion on this in **"Zooming in and zoning out! Why we hate online meetings!"**. Also, one of the biggest controversies to rock the PhD community this year is highlighted in **"#IchBinHanna".**

Our podcast, which we started back in 2020, had a very successful second season this year, reaching 10.000+ listens across all platforms. We produced 30 episodes, released on a weekly basis, and this was not an easy task, especially for a team working on their PhD full time. This year, our podcast had more than 30 guests, primarily industry specialists, professors, other doctoral researchers, and scientists working on a wide range of captivating topics. You can read about how we tried our hand at science communication in the **"Featured Episodes"**.

Now, let's get to the brass tacks. This year is probably my final year working for the Offspring Magazine and Podcast Working Group. To me, it feels like it has been one of my most engaged years at the helm of the Offspring Magazine, and coordinating this wonderful team of amazingly talented individuals makes me very happy. Even though we primarily interacted online, I feel like I developed so many friendships with my colleagues, and I hope I continue to cherish these relationships as life moves forward. I would like to end this editorial on a positive note. The PhD is filled with so many life changing experiences, so don't hesitate to volunteer for these because you never know how much you will end up enjoying it. Adios and until next year!!!

Srinath Ramkumar
On behalf of The Offspring Magazine Editorial Team

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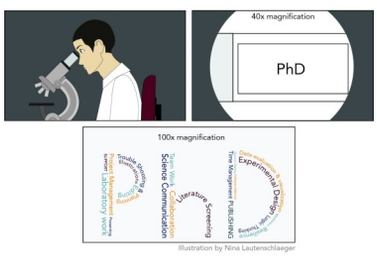

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In this Issue

mRNA Covid-19 vaccines: Facts vs Fiction

by Maria Elisa Almeida Goes

As the Covid-19 pandemic completes one year, vaccines appear to be our only ticket to the “new normal”. However, we all have a grandparent, a cousin, or an uncle who is skeptical of getting their shot. It is no wonder that so many people have concerns, especially considering the amount of fake news and misinformation shared everyday on social media. Today we want to explain what mRNA based vaccines actually are, and why we should not fear them.

mRNA Vaccines: What are they?

The messenger RNA (mRNA) vaccines developed by Moderna and the consortium Pfizer/BioNtech were the first authorized Covid-19 vaccines in the western world, and also among the first mRNA vaccines ever approved for human use.

RNA molecules are central components of (almost) all the cells we have in our bodies. They are short-lived molecules essential for protein production in our cells. Structurally, RNA molecules are “similar” to the DNA in that both are made of a sugar, a nitrogen base and a phosphate. But there are many critical differences between both molecules. While DNA has two strands (which forms the popular double helix structure), RNA usually has only one strand, and thus forms no helix. Chemically, RNA molecules have a different sugar and a unique nitrogen base which is key for correct recognition by the cellular machinery. Messenger RNA molecules are a subclass of RNA that decodes the information in our DNA into a language that the cellular machinery can easily understand.

The technology of mRNA vaccines consists in packing up a small part of the viral mRNA genome inside of an oily shell. Since only a part encoding for the spike protein (a protein displayed in the outer surface of the viral particle) is included, the vaccine is non-infectious.

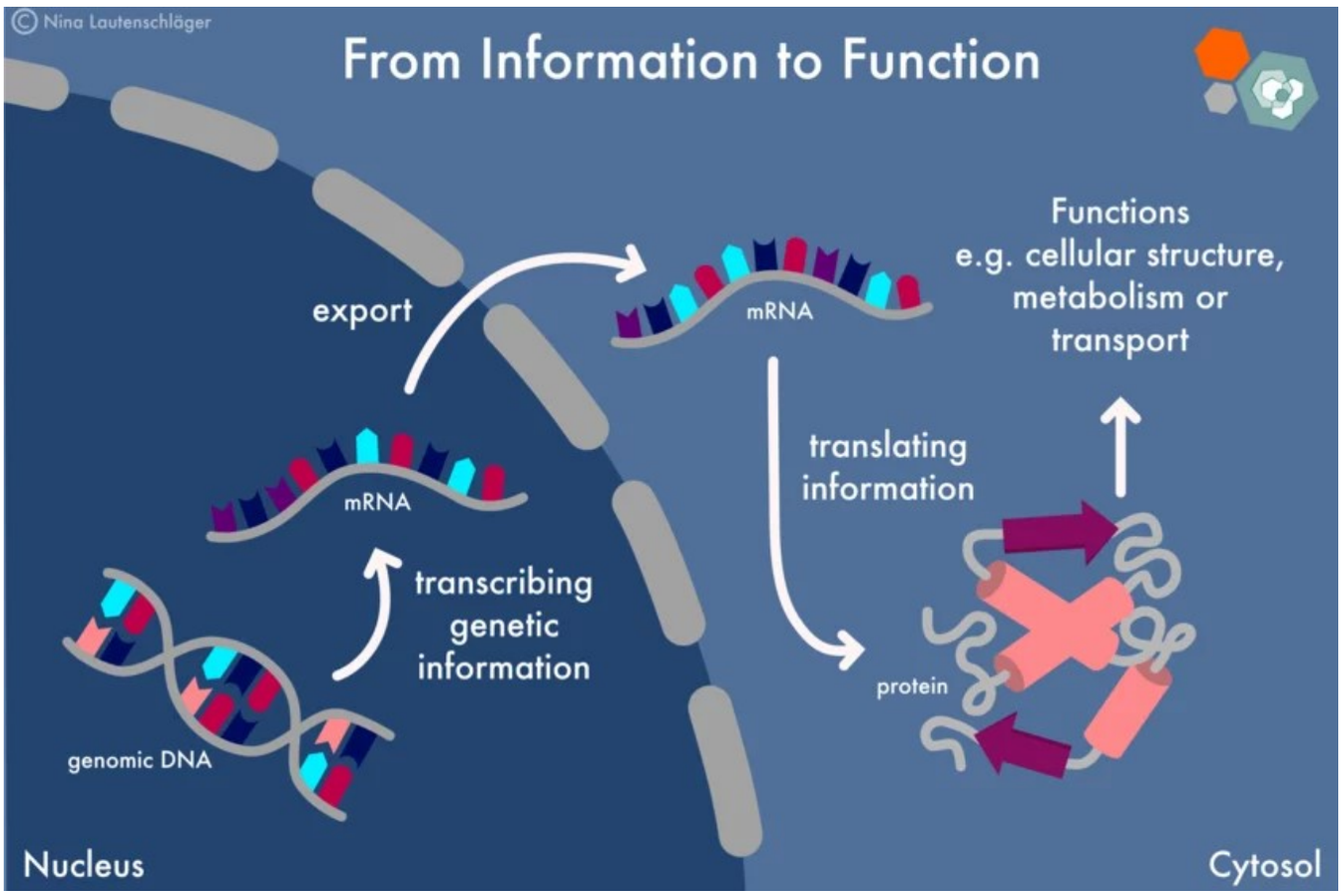


Illustration by Nina Lautenschläger.

How do mRNA vaccines work?

It is really important to keep in mind that scientists understand a lot about RNA biology. We know, in detail, how mRNA is produced and degraded. In fact, RNA biology is understood in such detail that we can even recreate the molecule artificially. Interestingly, despite pioneering as the first mRNA vaccines ever approved, this technology has existed since the early 1990s, when the first studies for safety and efficacy started. Throughout three decades, the technology has been continuously improved, focusing on novel vaccines against the influenza virus, HIV, rabies and especially as an immunotherapy tool for fighting cancer.

Since only a part (of the mRNA genome) encoding for the spike protein is included, the vaccine is non-infectious.

In 2020, when Covid-19 pandemic broke loose, scientists already had good evidence for the most efficient delivery methods for mRNA vaccines. It “only” took them the effort of choosing which part of the SARS-CoV2 genetic material they would use to engage our immune system in the best way possible.

Similarly to other coronaviruses responsible for the common cold, Covid-19 also uses spike proteins as a key to unlock the entrance gate guarding the interior of our cells. Because of this functional importance, it made a lot of sense to choose this protein as the vaccine blueprint – the instruction to produce the immunogen.

After intramuscular injection, the oily capsule containing the spike mRNA is taken up by muscle and some immune cells. The cellular machinery uses this mRNA as instructions to massively produce spike proteins, whose bits will be presented to effector immune cells. As soon as they recognize these particles as foreign, a rapid and intense immune response is initiated, as if we are experiencing a real infection.

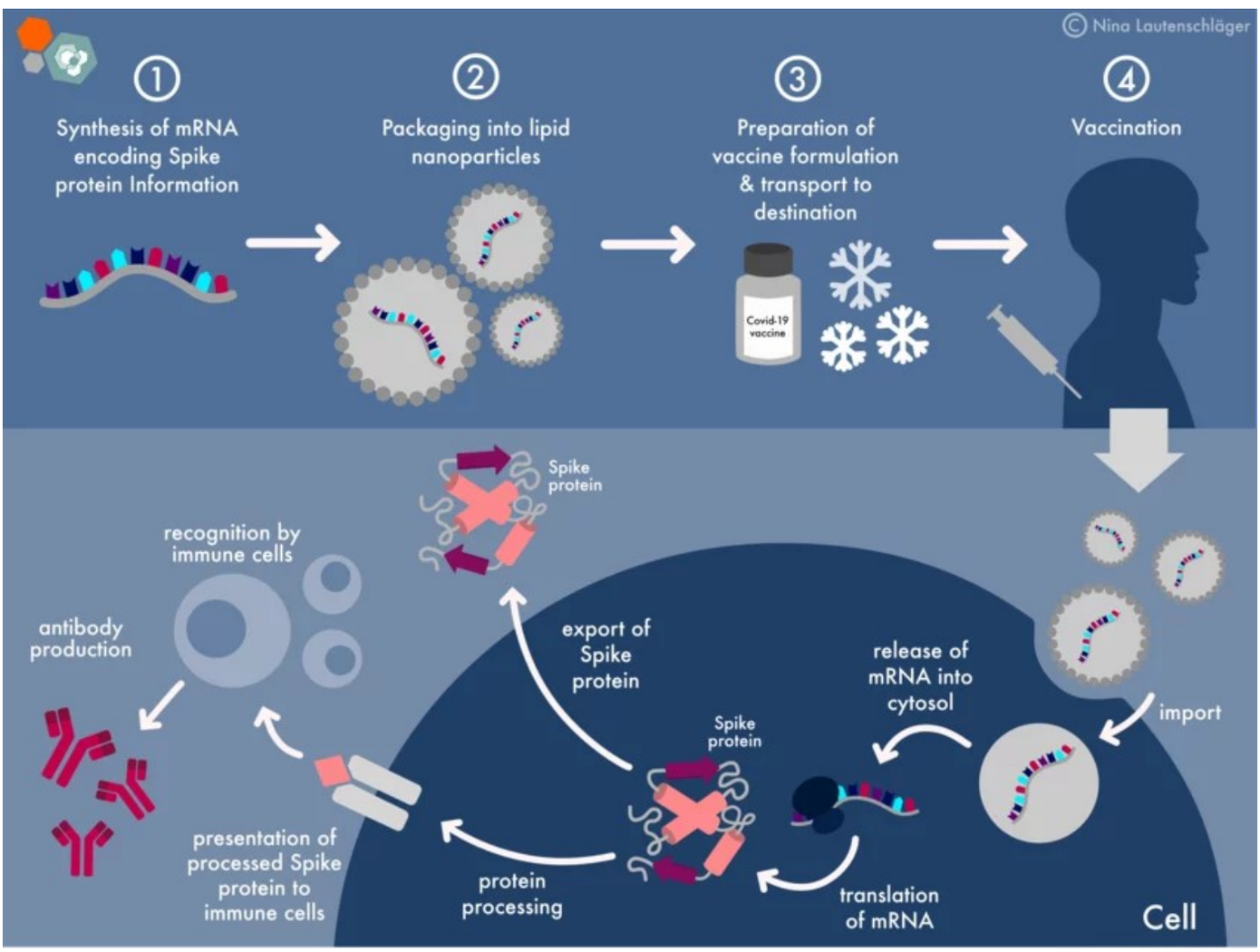


Illustration by Nina Lautenschläger.

Interestingly, despite pioneering as the first mRNA vaccines ever approved, this technology has existed since the early 1990s, when the first studies for safety and efficacy started.

An interesting feature of mRNA is that in room temperature, it gets degraded within hours; our cells have sophisticated mechanisms to ensure that mRNA is destroyed after promoting protein synthesis. You might have heard about the challenges concerning the logistical distribution of these vaccines: in order to prevent degradation, they need to be stored below -20 oC. Now you might remember that our body temperature is normally 36,5 oC. Guess what happens next?

mRNA vaccines will not alter your DNA, this is why:

Concerns about the effects mRNA vaccines over the integrity of our DNA also exist. Thankfully, you do not need to worry about this. Such an event would challenge everything scientists know about basic cell biology, and is so improbable, that one can actually call it impossible.

The main reason for that is that, besides being chemically and structurally different from DNA, mRNA is located in a different cellular compartment. While DNA is enclosed in the nucleus, mRNA is produced in the nucleus, but is quickly exported to the cytoplasm with a one-way ticket: it does not come back. In fact, only specific proteins carrying “nuclear localization signals” are able to migrate from the cytoplasm into the nucleus, and mRNA vaccines definitely do not include such molecular instruction. Thus, because mRNA cannot spontaneously be trafficked to the nucleus, it cannot modify your DNA sequence. Additionally, the RNA molecule is charged and carries the same charge as the nucleus, so as our 6th grade physics taught us, like charges repel, and hence the RNA molecule is physically repelled by the nucleus.

One might also argue that there are mechanisms through which RNA can be integrated into the genome – HIV viruses being the classic example. The key differences here are that such viruses (1) express special enzymes which are able to code DNA back into RNA and (2) can associate with proteins that can traffic them into the nucleus. Neither scenario is applicable to the mRNA vaccines.

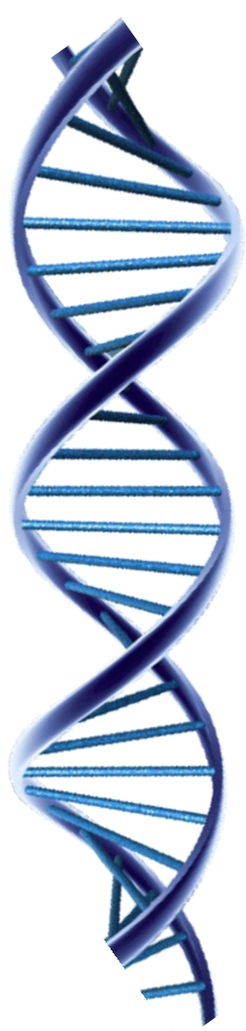


Image by Yansi on Cleanpng.com

For the same reasons, mRNA vaccines cannot affect your unborn children. This would require genomic mutations in the reproductive cells – sperm and egg – since only these could potentially be transmitted to the next generation.

“mRNA vaccines cannot affect your unborn children. This would require genomic mutations in the reproductive cells – sperm and egg – since only these could potentially be transmitted to the next generation.”

Speaking of children, you might have heard that Covid-19 vaccines would cause infertility in women because antibodies against the spike protein could mistakenly attack placenta cells, due to an alleged similarity with a placental protein called syncytin-1. There is no scientific evidence supporting this claim – and, in fact, the two proteins are barely similar, sharing only 4 sequential amino acids out of 538.

Still, you might want to ask why pregnant women are excluded from the vaccination campaigns, and why, during clinical trials, women are asked to use contraceptive methods that will avoid pregnancy.

Again, this is not a red flag. Any clinical trial for a potential vaccine or drug will exclude children, pregnant women, old people and people with specific underlying conditions. Initially, trials are designed to obtain major insights whether the developed pharmaceutical product works at all, in healthy adults. Once safety and efficacy are determined, tests are expanded to smaller groups that at first were set aside. Excluding pregnant women from trials only shows that trials are being done systematically and following standard protocols.

mRNA vaccines are no exception: during clinical trials, and especially after the second vaccine shot, the majority of participants report local pain, tiredness, and even light fever. Such effects are, in fact, an indication that the immune system is kicking in, and starting to respond.

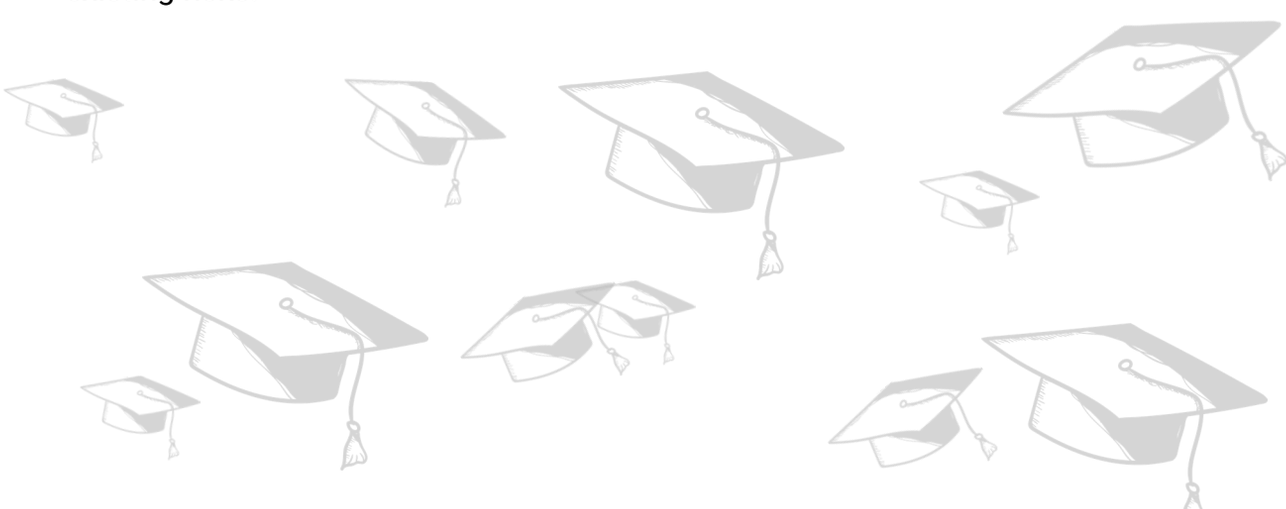
Photo by Towfiqu barbhuiya on unsplash

Allergic reactions are very rare and likely to be kept under control

As we speak, more than 330 million doses of Covid-19 vaccines have been distributed worldwide. It is an achievement without precedent, and we hope that it will soon relieve healthcare systems. It is also no wonder that we also notice very rare adverse effects taking place. Mild and moderate adverse effects following the administration of any vaccine or medication are expected and acutely manageable. mRNA vaccines are no exception: during clinical trials, and especially after the second vaccine shot, the majority of participants report local pain, tiredness, and even light fever. Such effects are, in fact, an indication that the immune system is kicking in, and starting to respond.

"If one compares the probability of a severe allergic reaction against vaccination (0.001%) to Covid-19 case fatality rate (1-10%), it becomes clear that the benefits of immunization far outweigh existing risks."

Severe adverse effects, such as extreme allergic reactions (also known as anaphylaxis), have been observed upon vaccination of a few million people. More precisely, the incidence of anaphylaxis is now estimated as 11.1 cases for every million doses applied (and 80% of them in people with a history of severe allergies). Norway has recently reported the death of frail elderly patients in nursing homes "shortly" after the vaccination. All cases have been carefully investigated by health authorities, and no causality between vaccination and death could be established. It is essential to keep in mind that many frail people above 85 years of age die in nursing homes weekly, and no increase was observed in comparison to the numbers prior to vaccination. On the contrary, the many outbreaks in nursing homes across Germany and Spain have stressed how important it is to immunize the elderly. If one compares the probability of a severe allergic reaction against vaccination (0.001%) to Covid-19 case fatality rate (1-10%), it becomes clear that the benefits of immunization far outweigh existing risks.



So...can we finally get back to normal?

One thing we still do not know about the vaccines is whether immunized people are still able to spread the virus even though they do not develop symptoms. For this reason, the scientific community agrees that until the majority of the population is immunized, we will have to continue wearing masks and practicing social distancing. Luckily, we can speed up our way back to normality by creating awareness and by volunteering to get vaccinated as soon as it is our turn. It is important to trust the regulatory agencies as they follow rigorous criteria and scrutiny before approving each vaccine. There is no reason to believe that one vaccine is safer than another, and therefore, we urge you to take whichever vaccine is offered to you.

We hope this article has successfully answered most of your doubts about mRNA vaccines. It is completely normal to have questions and look for information about the pandemic that has turned our lives upside down. But right now, it is extremely important to question everything we read or watch. Do not blindly trust any text or video that reaches you on social media - especially if they sound alarming, use uppercase letters, exclamation points, try to disguise the word vaccines by writing things like V4(!NNE$, and try to convince you of conspiracy theories. Always double check information before forwarding it. Scientists are working around the clock so that we can reach the new normal as fast as possible with rigorous safety standards and it is our duty as responsible citizens to be aware of the legitimacy of the information around us. I have not received my ticket yet, but I can't wait for it. What about you?

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Photo by Davyin Ben on unsplash

Trash for the sake of science?

Science is unsustainable. But can I make a difference?

by Maria Elisa Almeida Goes, Allison Lewis, and Bhargavi Murthy

Illustration by Nina Lautenschläger.

Germany leads global recycling rankings with up to two thirds of all municipal waste being recycled. However, research institutions within the Max Planck Society (MPS) do not appear to reflect this enthusiasm towards recycling. In the absence of a central sustainable directive from headquarters, institutes seem to implement whichever policies they feel inclined to, and often have little or no recycling initiatives. Research labs consume enormous amounts of energy and generate substantial non-recyclable and toxic waste. They can consume three to six times more energy than commercial buildings, mostly due to refrigeration and ventilation systems. Lab experiments also rely heavily on single-use plastics and personal protective equipment (PPE). A letter published in Nature, by the University of Exeter, estimated that 280 bench scientists in the university's bioscience department generated 267 tonnes of plastic in 2014 alone.

Reducing the environmental impact of science requires both individual and collective effort. Even if your institute has energy efficient equipment and takes part in waste recycling programs, the successful execution of sustainability goals lies in your hands. It can also be the other way around; some PIs or institutes may not have the time, resources, or even interest, in adopting sustainable practices. In this case, it is up to the eco-conscious individuals to take the first steps towards practicing sustainability and educating their peers; practice before you preach.

*"Even if your institute has energy efficient equipment and takes part in waste recycling programs, the successful execution of sustainability goals lies in **your** hands"*

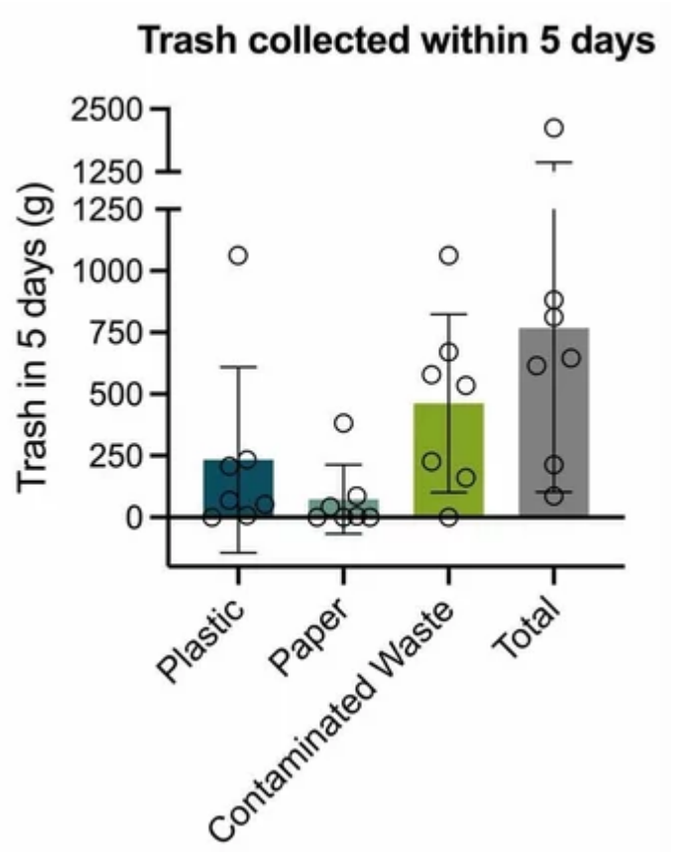
One of the greatest barriers to practicing sustainably is knowing where to begin. This highlights the importance of a sustainability assessment to identify our biggest contributors to waste; then we can implement alternatives and establish parameters to measure the effectiveness of our changes. Ideally, an assessment would take place at the institutional level, with input from all relevant employees, transcending what individuals can achieve piecemeal. Until top-down initiatives are fully realized it remains the responsibility of the environmentally conscious to be the drivers of change. In this spirit we embarked on our own sustainability assessment in the form of a "lab waste challenge", to analyze qualitative and quantitative aspects of the waste produced over a week (5 weekdays). We diligently sorted and weighed consumables, personal protective equipment, and packaging materials. Six participants in the waste challenge were bench scientists/technicians from biological laboratories and one was from an administrative office.

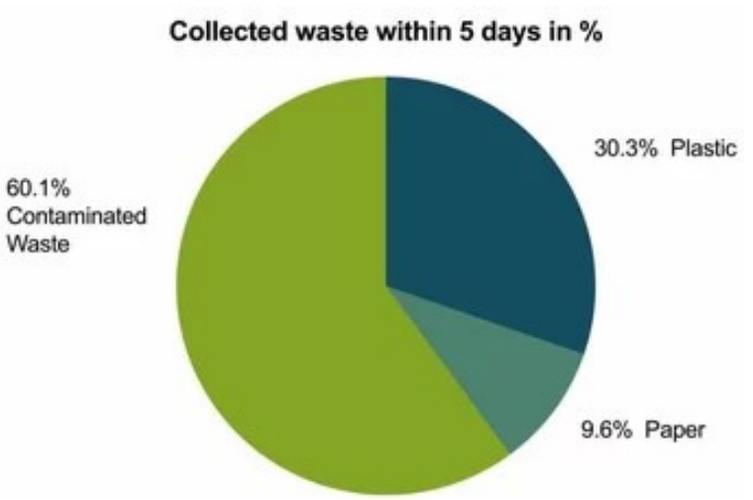
The Waste Challenge

We embarked on our own sustainability assessment in the form of a "lab waste challenge", to analyze qualitative and quantitative aspects of the waste produced over a week.

Results

Plastic materials - packaged in more plastic and paper - were one of the biggest contributors to waste. In just one week, 7 participants accumulated 5.5 kg of waste: 1.7 kg was clean plastic and 0.5kg clean paper. This demonstrates that at least 39% of waste could be easily recycled, if such initiative exists. To illuminate the sheer scale of the waste problem we extrapolated these numbers to a period of one year. We estimate that a single researcher per year would generate roughly 14 kg of recyclable waste and a whopping 22 kg of non-recyclable waste. The non-recyclable waste is typically a mixture of different materials - possibly contaminated with hazardous substances - like plastic tubes, pipettes and personal protective equipment (PPE) . But it's not all doom and gloom. Once armed with the results of our sustainability assessments, we attempted to identify if and where sustainable alternatives exist.





Alternatives - PPE

From our waste challenge, PPE represented nearly 37% of non-recyclable plastic waste, mostly attributed to our reliance on gloves. Gloves are a sensitive topic; due to biosafety reasons, gloves must be immediately discarded after use. TerraCycle, however, is an interesting venture that employs innovative technologies to recycle almost any type of non-recyclable waste from households, commercial buildings or research facilities. The KIMTECH ™ nitrile disposable glove recycling program, in collaboration with Terracycle, can upcycle gloves into reusable products like transport boxes or park benches, instead of the standard practice of sending gloves to landfill.

Disposable plastic shoe covers and hair bonnets could be easily swapped for sterilizable shoes and washable fabric bonnets. But despite the availability of sustainable alternatives, many scientists cannot make the switch due to a lack of supporting institutional policies. For example, they may face bureaucratic issues if they wish to order sustainable alternatives which are outside the current supply contracts of the MPS.

Photo by Mask medicare shop on unsplash

Fortunately, there are glass alternatives to address the use of plastic serological pipets, falcon tubes, and slides. The switch to sterilizable glassware could result in a shocking 29% reduction in non-recyclable contaminated plastic.

Alternatives - Potentially contaminated plastic

Major contributors to non-recyclable waste were plastic consumables, like pipettes, tubes, and cell culture dishes, which accounted for roughly 62% of plastic waste. Similar to gloves, there are few existing alternatives on this front. But trying to strike a balance between performing quality research while also being mindful of the subsequent environmental impact can be challenging - especially given the lack of a sustainability-oriented mindset within the MPS. Fortunately, there are glass alternatives to address the use of plastic serological pipets, falcon tubes, and slides. The switch to sterilizable glassware could result in a shocking 29% reduction in non-recyclable contaminated plastic. But, most autoclaved glassware is wrapped in aluminium foil, which instead of being reused or recycled, is simply thrown away in the same bin as non-recyclables. Increasing and diversifying the supply of glassware to laboratories could be an achievable goal, for both, scientists and the research institutes.

Photo by National cancer institute on unsplash

Alternatives - Clean plastic

The ubiquity of plastic packaging we deal with in our personal lives, unfortunately, also extends to the lab environment. Although we can't control how companies package their products, we can reduce our reliance on pre-filled, single-use tip boxes. Certain types of clean plastics are recyclable (to an extent) when correctly sorted. For instance, at the UAB Green Lab program, labs are sending pipette tip boxes to a local recycler and are also able to recycle styrofoam and various types of plastics (type 1,2,4,5). In a recent publication by researchers at Rice University, clean plastic waste, such as tip boxes, could possibly be converted to high-quality graphene by a method called Flash Joule Heating; graphene has numerous applications due to its strength, elasticity and good conductivity of heat and electricity.

In conclusion

From our small-scale lab waste challenge, we identified that about 39% of the waste produced by bench scientists had recycling potential, characterized by clean plastics like pipette-tip boxes and single-use packaging. Of the remaining majority of non-recyclable waste, gloves alone accounted for 25%. We also observed that almost 30% of the non-recyclable “potentially contaminated” waste made of plastics, could be replaced by alternatives, such as glass pipettes, reusable tubes and reusable shoes.

The first step towards reducing waste isn’t the three R’s - reduce, reuse and recycle. There is another R above all, the most effective: Refuse. The first step is molding our mindset to refuse an unsustainable product or practice. For instance, instead of labeling contaminated waste as “unavoidable”, a shift in perspective can allow one to plan experiments in advance to minimize resources. It is, however, true, that sustainable alternatives do not yet exist for all applications. Reusing is the best step in this scenario, like using washable PPE. Though recycling is the next option after reuse, we often forget the energy costs associated with it. Segregating plastics, melting them down and repurposing them is challenging, laborious, and thus, more expensive than producing new plastic.

Apart from the waste problem, the energy consumed by research facilities leaves a massive carbon footprint and a significant proportion of public research funding is spent on our labs' energy costs. Taking simple steps – like increasing the freezer temperature from –80°C to –70°C, installing LED bulbs and turning off fume chambers or cell culture hoods – can significantly reduce energy consumption, a few tonnes of carbon emissions, and of course, the annual electricity bill.

Being sustainable requires a paradigm shift in our mindset, in every aspect of our life, because trying to live circularly in a linear economy is like trying to fit a circle in a square. Remember that you cannot be perfectly zero-waste or zero-carbon: you can only strive for it. Every little effort is better than not trying at all and regular practice can make sustainability a habit.

Further Reading

Sustainability within the MPS - It matters for everyone!

Offspring Magazine 2019

https://www.phdnet.mpg.de/113798/20190821_SustainabilityMPS

Good science is sustainable science

The Max Planck Gesellschaft must do its part

by Allison Lewis

Scientists have a secret: publicly we are ringing the alarm bell of the global climate emergency while also failing to address the fact that our experiments remain dependent on energy intensive equipment and single-use plastics. Researchers have little choice other than to be complicit, as these destructive habits have unfortunately become standard practice when conducting modern experiments. Compounding this challenge, leadership at scientific institutes and funding agencies have failed to encourage and enforce the use of sustainable alternatives in response to climate change. This lack of support at the institutional level can and has led to concerned scientists feeling helpless, similar to individuals in civil society lacking support from their community and hindering the advancement of sustainable practices. As students in the Max Planck Gesellschaft (MPG) we should consider how we can be advocates for change in our scientific community - much like you can promote change in your local community. For now, the responsibility to make science more sustainable seems to be falling on the shoulders of MPG scientists, who have banded together across institutes to create the Sustainability Network.

In 2015 a group of scientists at the Max Planck Institute in Magdeburg began a grassroots movement to make their science more sustainable, and in over 5 years the network has grown to include over 300 scientists from 50+ institutes. Initiatives are wide-ranging; some can be as simple as choosing to order refillable pipette tip boxes instead of pre-packed and using glass vials and pipettes rather than plastic. Other strategies require fundamental changes to the architecture of the building- such as the use of photovoltaics on the roof at the MPI in Martinsried (and hopefully soon at Heidelberg). Foundational changes such as these set a precedent for what can be achieved across institutes and should become the new “standard practice” in the years to come.

These initiatives are as inspiring as they are necessary, but the acts of individual scientists unfortunately only represent a rather small fraction of the equation to achieve sustainability in research. As a publicly funded enterprise the MPG has a responsibility to society and its scientists to promote and implement sustainable practices at its institutes. Yet the current president of the Max Planck Gesellschaft has expressed concern that the implementation of sustainable practices in research “restricts the freedom of science”, which may explain why the MPG has not been a leader on this issue. Furthermore, their absence from the federally funded LeNa sustainability project, which counts the Frauenhofer, Lebnitz and Helmholtz

institutes among its ranks, does not inspire hope that the approach to sustainability, or rather lack-thereof, will meaningfully change. The MPGs silence in the sustainability conversation and absence from environmental initiatives weakens the impact and importantly is at odds with the current morale of science and society.

Fortunately, the MPG seems to be tipping its toes into the discourse by establishing the “Commission for Climate Protection" which will hopefully bring them in line with their peers. The support and resources of the general administration will empower scientists of the MPG to choose sustainable alternatives when they conduct their research by eliminating bureaucratic and logistic barriers. For example, at my institute, current supply contracts favour the ART single-use pipette boxes which must travel all the way from the United States, rather than refillable tip racks from Eppendorf, here in Germany (not to mention the Eppendorf tips also have less plastic per tip than those currently in use!) To make use of these more sustainable alternatives individual labs must make a conscious effort to order their own supplies rather than using those provided centrally. Nothing is perhaps more emblematic of this disconnect between the desires of scientists and the decisions of the general administration than the inconsistent handling of waste.

There are over 25,000 employees working in the MPG; imagine what we can accomplish together.

Some institutes take the initiative to sort recyclable waste while others discard all waste to the landfill. This highlights the need for better communication throughout the MPG to establish common goals in our approach to sustainability. In an ideal world, the issue of sustainability in science would be treated with the same urgency and seriousness as lab safety, and every institute would have a dedicated sustainability officer. The consequences of failing to work more sustainably may not be felt as acutely as issues of safety, but the effects will be felt in the long term and the environment, and consequently future generations, will bear the burden of our inaction. Importantly, it is more practical and efficient for the MPG to initiate a collaborative approach in adopting sustainable practices, as this would eliminate redundancies in implementation between institutes

Photo-voltaics at the MPIs in Martinsried

Once an approach is successful at one institute, for example the photo-voltaics at the MPI in Martinsried, there is no need to reinvent the wheel. Furthermore, the MPG could learn from their peers at the Helmholtz, Frauenhofer, and Leibnitz institutes to improve their vision and implementation of sustainable practices in science. A collaborative approach which bridges the scales between individual scientists, Max Plank institutes, and the MPG general administration will allow us to achieve sustainable solutions which are greater than the sum of the parts. This collaborative support network would empower scientists of the MPG to make forward thinking choices when they conduct their research and know that they are not working alone but are a part of a larger group committed to understanding and preserving the planet.

Adapted from Workday design at medium.com

Zooming in and zoning out!

Why we hate online meetings

by Srinath Ramkumar

Alright, let's be real, Zoom has taken over the world now, and it has become eponymous with the idea of a meeting. Even the 73 year old gardener of my parent's apartment suggested a meeting over Zoom to discuss the issues with overgrown plants. Well, not really, but you get the point. We've started using Zoom with such a high frequency that we've forgotten what it feels like to have a conversation without latency and delay. We've forgotten how to make conversation without asking if everyone hears us first. We've forgotten days when people would give attention to a speaker, without the speaker having to ask for that repeatedly.

"Is zoom actually helping us improve our daily life, or is it just creating more avenues for us to be reached..."

This leads me into the conundrum that we face. Zoom meetings have become a part of our lifestyle, and problems which could have been solved with a simple email have suddenly become a 30 minute (or longer) zoom call. Is zoom actually helping us improve our daily life, or is it just creating more avenues for us to be reached, even when we don't want to be reachable? Is this level of hyper connectivity actually helping us create better bonds with the people around us? Or is it simply making us pay a hefty price using our attentiveness and ability to focus on tasks?

I can start discussing this from the advent of the pandemic last year, around March. Things were grinding slowly down to a halt, people were afraid of one or two reported cases in cities within a 50km radius. Reports were coming out discussing the potential high risk of death, fast spread of the virus, and everyone was becoming an expert in virology. The chief reason for that was the sheer number of new online "webinars" and "conferences". There was a new webinar every day about some new topic which was highly recommended for PhDs. The ability for people to attend a wide range of conferences increased, but at the same time, the exposure to bad meetings increased multifold.

Why am I rambling on without any context to the zoom meetings topic I started, you ask? You see, meetings were still supposed to continue, and the Lord Almighty "Zoom" was chosen as the most preferable choice by most. The number of zoom meetings per week amplified exponentially, almost as fast as the virus. This was due to the fact that people could now present their project updates from their desks. Doctoral Researchers (DRs) being students could be asked to present their latest progress about newer topics from their homes, in Journal Clubs. New meetings cropped up in the form of "Meeting on Topic A", "Meeting on Topic B" and so on and so forth. In effect, this led to more and more time spent in front of a light emitting digital screen.

Now then, with all the above, we need to delve into the inner workings of the human brain to understand why we feel this sense of brain drain from zoom meetings in particular more than regular meetings. Human interaction is not only about what a person says or does, it is also about the multiple non-verbal cues that our brain has evolved to observe and look for in conversation. Generally speaking, we tend to search for these cues in meetings, not just at the person talking, we tend to look around the room to identify the way others are reacting to what's being said. With zoom meetings, these cues are often absent, and much more difficult to decipher over a flat screen without any clear indication of three dimensional space. As this is compounded with the increased number of instances where we face such a scenario, the human brain starts to feel tired of searching, and this is perhaps the major contributor to the feeling of brain drain that one tends to experience.

“Human interaction ... is also about the multiple non-verbal cues that our brain has evolved to observe and look for in conversation.”

How do you deal with this, you ask me? Honestly, I don't know. I have been reading online to see if there are any suggestions, and major ones include phrases like “switch off your camera”, “take a walk”, “look into the distance and try to concentrate on the voice”, etc., but honestly, none of these work for me. As an auditory and kinesthetic learner, I tend to learn more when I’m just listening, and doing experiments. I could easily listen to the meeting like listening to a Podcast, but the demand for active presence makes this more complicated. Also, for presentations involving screen sharing, and data being shown on screen, the additional visual cues become more apparent and they require more attention in order to fully understand what’s being said. As a result, we end up in a situation without a clear solution that can allow us to preserve our mental acuity.

We can only wait until the pandemic comes to an end, and we are able to return to face to face meetings. With regard to existing online meetings, we could shorten them, keep them to the point. With regards to returning to in person meetings, what we can do is to hope the government is able to get everyone vaccinated to reduce hospitalizations and death counts, which would eventually downgrade the pandemic to nothing more than a seasonal flu like illness. With the given widespread number of mutations and variations to the virus, this seems to be our best case scenario. Anyway, how about that for a motivational morning masterpiece of a magazine article?

Sources

Zoom fatigue' is taxing the brain. Here's why that happens. National

Unseen and Unaware: Implications of Recent Research on Failures of Visual Awareness for Human-Computer Interface Design.

The Interplay Between Face-to-Face Contact and Feedback on Cooperation During Real-Life Interactions

Zoom, Pow, Crash: Why Video Calls Are Sapping Your Superhero Strength

The reason Zoom calls drain your energy

A Neuropsychological Exploration of Zoom Fatigue

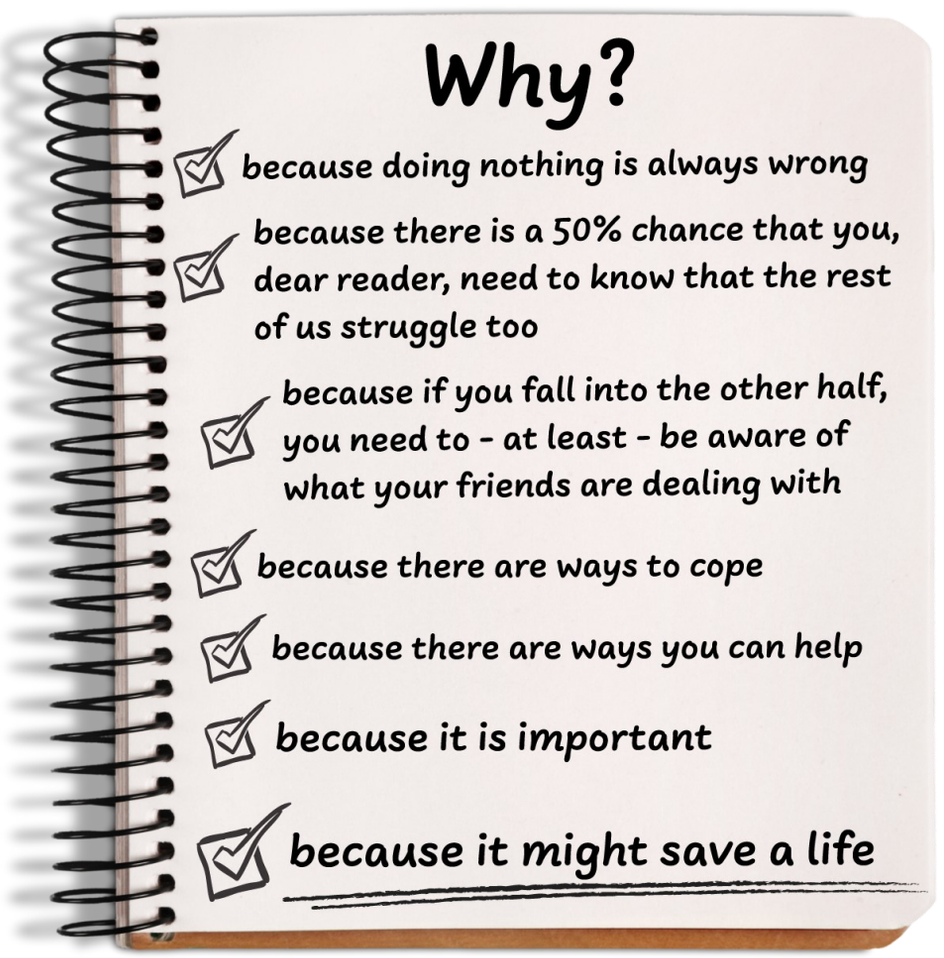
Mental Health Collective

MHAW2021

In pursuit of Mental Health ~~Well~~Being

Mental health topics suddenly are jumping from every corner; everyone seems to be talking about it lately. But, are you actually listening?

by Barbara Safaric, Mental Health Collective

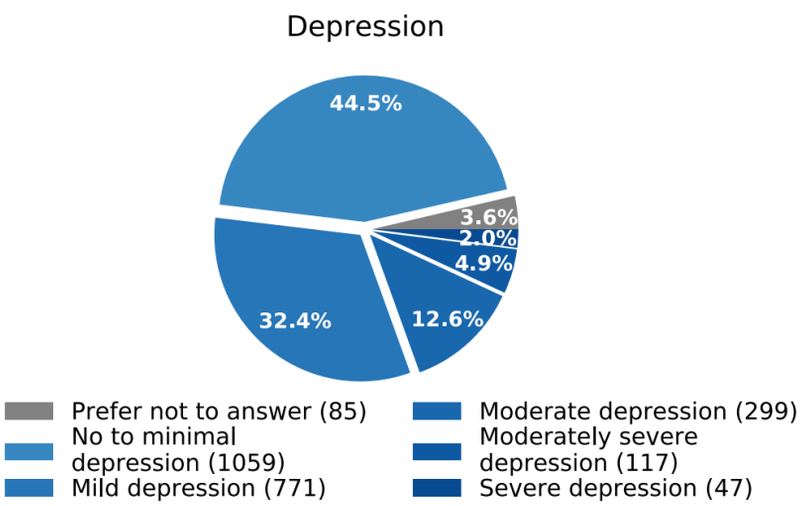


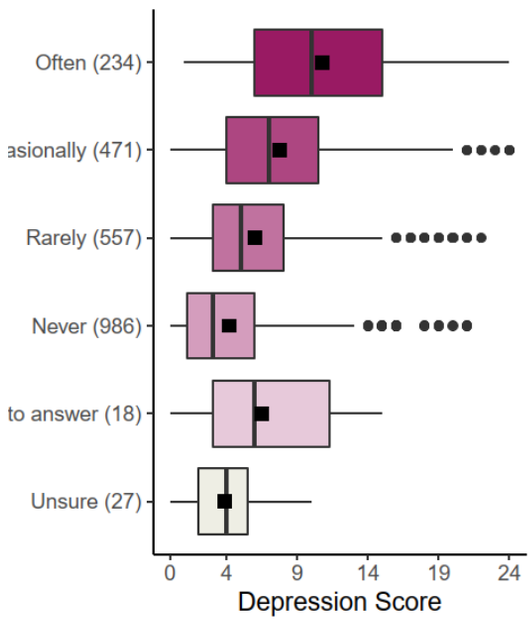
Another year rolled by, another one where the most common topic of conversation was the world we live in and the Covid-19. Days blended together, the concept of time became even more abstract, and before we knew it — it was time to get our hands dirty (typing on the filthy keyboards after all those meals we ate at the table, sorry, home office desk) and make another Mental Health Awareness Week a reality.

Why us? Because no one else will.

Once again, the PhDnet survey reports that more than half of all PhDs show at least mild depression symptoms (~52%), and that poor mental health is related to (thinking of) quitting one's PhD. So, what is your institute doing? We can have more surveys, we can keep sharing the numbers, but if those **52%** — an absolutely terrifying number — are not enough to trigger a crisis response…

What will it take?





(PhDnet 2020 survey)

This year was the third consecutive year with Mental Health Awareness Week organised by (mostly) PhDs of the Max Planck Society. Over the course of those three years, there have been some improvements on the topic from the institutional side, and, equally important, there are more and more of you, dear reader, present. This year's MHAW was visited more than ever before — in total there were more that 2300 people present in the course of the week. The turnarout made us, everyone in the Mental Health Collective, very very happy. It shows that you are, in fact, listening. It shows that the so-far unspoken and heavily underestimated importance of mental health is starting to get acknowledged and taken into account.

It's about time.

Mental health is "… a state of well-being in which the individual realizes [their] own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to [their] community"

So, how does one go about organising Mental Health Awareness Week?

- **Step 1.** Find your people.
- **Step 2.** Just do it.

It is really as simple as that.

Virtual meetings are a breeze to organise from a logistical perspective. We, the Mental Health Collective, gathered a team of motivated people — PhDs, postocs and non-scientific staff (!) — everyone put their ideas on the table and the search for speakers started. Before long, we had an entire week worth of talks from different mental health activists and professionals on a wide range of topics: 22 speakers over 42 sessions to be precise.

Our speakers were kind enough to volunteer their time and expertise because we could not offer them any sort of compensation, something we really hope to be able to change in the future. For this, we need your support. Get involved at your local institute and graduate schools, ask for (or even organise yourselves) seminars and workshops on the topic of mental health. If you liked a speaker(s) from MHAW and would like to host them at your institute — reach out to them.

Yes, it is a lot of work. There are a few obstacles you need to deal with when organising MHAW. Some late nights writing emails and coordinating things. Plenty of worrying about "*How to grab people's attention? How will the week turn out? Will anyone show up?* "... while anxiously waiting to see if you will get any support from higher ups. A hard thing to do when you are — let's be frank — criticizing and calling them out. But the criticism is not coming from a malicious place. In an ideal world, mental health topics would be handled by those on the top, experienced people with appropriate resources. Unfortunately, the reality is different and here we are — fighting for mental health from bottom up. But it's not all doom and gloom. It is important to acknowledge the position we are in, and the ability for us to come together, organise events such as MHAW and send a clear message to those in the leadership positions: We are here. We need to change things. We want to change things. Let's work together.

In the spirit of building an inclusive community, a little something extra we did this year — sessions were in English and in German. As you might notice, within the Max Planck Society there is often a great divide between PhDs and postdocs and other employees, particularly the administration staff. Our hope for having sessions in both languages was to include the non-English speaking staff and bring our worlds together. We'd like to think we succeeded in that - there were many nice discussions, with experiences and perspectives shared between the two worlds. Why is that important?

MHC mailing list

„We need to have conversations about mental health with all parties involved"

Sources

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Coming back to the question from the beginning — *What is your institute doing?*

In the MHAW closing session, we presented a few best practice examples from different institutes. As an unofficial, unrecognised initiative, Mental Health Collective would like to give a gold star to (in no particular order):

MPI of Neurobiology

- consultation service in cooperation with the MPI of Psychiatry
  —> they are open for cooperation with other institutes!
- seminars on Mental Health & handling stress

MPI Biology of Ageing

- graduate school mental health webinar series
- resilience and communication workshops
- mindfulness-based stress reduction course
- mental strengths and strategies workshops

Caesar Bonn

"The Share Circle"

MPI of Biochemistry

- Mental Health First Aid course (in German & English)
- Resilience Training for Researchers

MPI Astronomy

- Resilience & stress management workgroup
- Workplace culture & environment workgroup

MPI Solar System Research

- mental health course by TK

MPI Study of Societies

- local peer-to-peer support network

These are just a few best practices from institutes around the country for you to get inspired what can be done at your institute:

We chose the name "Mental Health **Collective**" for a reason — to change our attitude towards mental health, we need a **community**. Yes, a paradigm shift among those in leadership positions is vital. But so is a community that will speak up, a community that will have tough conversations, a community that will hold space for you. A community you can reach out to. A community you can count on.

Hope you are a part of that community.
Welcome to the Collective.

Safer Spaces
Coming to the office next door!

In an ideal world, all spaces would be safer spaces, and all people would be considerate towards others and protect each other's sense of safety. But, despite our best intentions, sometimes we are either unaware of certain issues, or have inconsiderate moments, or have not reflected upon our implicit biases.

by Renee Vieira, Allison Lewis, Julia Francis Kiefer
& Barbara Safaric, PhDnet EO

If you went to school in North America, or even in the UK, you might already be familiar with the concept of 'Safer Spaces'

The Equal Opportunity work group of the Max Planck PhDNet recognizes the unmet need to support a broader range of diverse colleagues when they experience discriminatory and unwelcome treatment at the workplace and passing comments. Currently, the MPG lacks local counselling structures to support those facing discriminatory comments, a biased environment, or micro-aggressions* at work. EO envisions an environment where these negative interactions become part of the past. To support this cultural and organizational change we propose the implementation of the so-called "Safer Spaces" initiative as a first step to accomplish this goal and make the Max Planck Institutes' working cultures more inclusive and diversity friendly. Having clear guidelines encourages mindfulness about these possibilities; by acknowledging the experiences of each person we interact with, we hope to create an environment as safe as possible.

What is a 'Safer Space'?

A 'Safer space' is a supportive, non-threatening environment where everyone can feel comfortable to express themselves and share experiences without fear of discrimination or reprisal. We use the word "safer" to acknowledge that safety is relative: not everyone feels secure under the same conditions.

In the framework of the MPS, the 'Safer Space' initiative aims to be a peer-to-peer self-organized form of support. Anyone interested would be able to receive a 'Safer Spaces' training, in which they will learn how to foster a safer and more inclusive environment. We also hope that under the umbrella of 'Safer Spaces', more intersectional diversity initiatives can grow within the MPG. The Max Planck Society believes that the "basis for cutting-edge research conducted at 86 Max Planck Institutes lies in diversity" Indeed, more than 50% of scientists in the MPS are international. However, diversity in science and academia remains low overall, which can lead to troubling experiences of bias, racism and discrimination at the workplace. To date, Equal Opportunity (EO) initiatives within the MPS have largely focused on supporting equal opportunities for women in science. A Safer Space in which a person can turn to a so-called Safer Space Agent to express themselves and share their experiences without fear of discrimination or reprisal, while remaining anonymous.

Concepts to know

**ableism* : discrimination or prejudice against individuals with disabilities

**cis* : here used as short for cisgender—a person whose gender identity corresponds with the sex the person had or was identified as having at birth

**inclusive language* : a language that acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equitable opportunities. It refers to language used in emails, marketing material, social media, websites, and other forms of communication. Should be free from words, phrases, or tones that demean, insult, or exclude people based on their membership within a certain group or because of a particular attribute.

**micro-aggression* : a comment or action that subtly and often unconsciously or unintentionally expresses a prejudiced attitude toward a member of a marginalized group (such as a racial minority) *also* : behavior or speech that is characterized by such comments or actions

So, how can I be a Safer person to talk to?

Glad you asked !

The answer is very simple (in theory at least). Are you ready?

- **By listening.**
- **By acknowledging realities.**
- **By being aware of one's own limits in perspective.**

Yup, that's all there is to it.

By listening with the expressed intent to reflect on what the other person says, and not just listening with the intent to reply immediately, which is easier said than done, as we all tend to jump right in and respond. A nice trick here is to take a mental breath before answering, in that way you don't cut someone off, and you give everyone enough time to process what others are saying.

Another incredibly important thing that we cannot stress enough - be aware of your own limits in perspective. In Germany, we live in a society in which the norms are to be white, German, hetero/straight, conservative, Christian, cis*, as well as implicitly (and at times explicitly) racist, and ableist*. Workplaces, living spaces, and education systems are, for the most part, designed by the majority for the majority in mind. If you fall into this majority (or most of these categories) you will have a different experience in society as opposed to those who do not, which can lead to unconscious assumptions and misconceptions about others, and the potential for bias. Acknowledging this highlights the importance of listening and supporting others in a way that is non-judgmental, focuses on their experience and feelings, and validates them.

Also, educate yourself. About inclusive language*. About bias. You might think that you don't have any, but the society we live in inherently shapes them. Take a test and find out which unconscious biases you have when it comes to race, religion or gender at Project Implicit.

Sources

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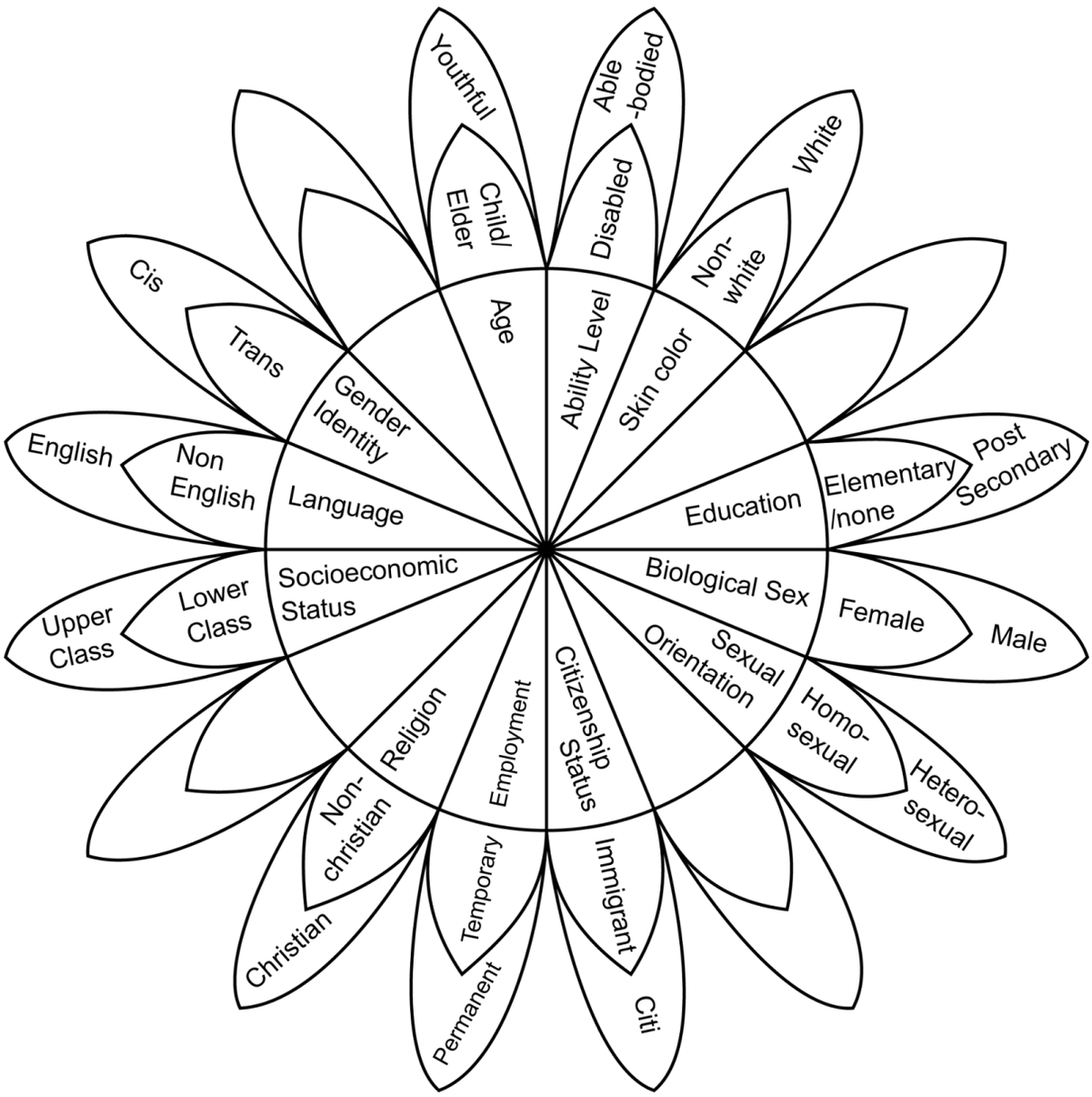
www.mangoes-and-bullets.org

Project Implicit

Here's another quick exercise for you - look at the 'Privilege Flower' below. Have some colouring pencils nearby? Colour all the petals where you fall in. This can help you realize areas of you own privilege as well as discrimination. It also helps to visualise intersectionality.



'Privilege Flower' is modified after 'Power Flower' by *mangoes & bullets.*

Just to make it clear - the scheme of Privilege Flower refers to constructed categories and their simplification doesn't adequately represent the complex reality. Nevertheless, this simplification has an effect on society and refers to certain distribution of privileges and access to resources. We are often forced to take a stance in this binary system. It should be recognized that all individuals change their positions in different spheres of society, shifting from non-privileged to privileged positions and vice versa. It's important that we are aware of our position and recognize when we are dealing with structures of oppression (as victims or beneficiaries). This awareness makes it possible to develop empathy for others and to act responsibly. The goal isn't to provoke guilt over one's 'innate' privileges, but to encourage a conscious use of one's own capabilities and opportunities as well as to call for a positive reinterpretation of power and justice.

So, what do you say? Are you on board?

The PhD — So much more than a title

by Nikolai Hörmann

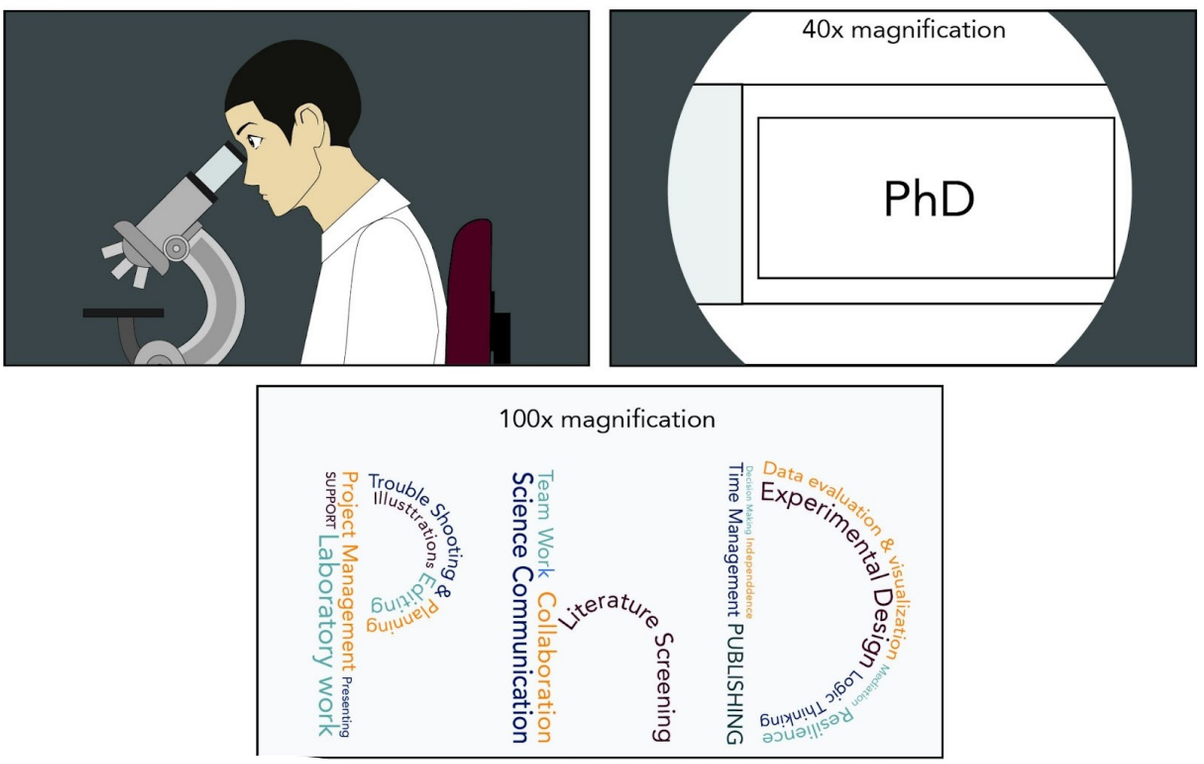


Illustration by Nina Lautenschlaeger

The competence gained from a PhD goes well beyond working in the lab. Working on different projects and with different people, together with years of troubleshooting gives you a lot of invaluable experience that should be recognized more.

Starting my fifth year of the PhD, I am beginning to think about what comes after. Naturally, looking for a job that fits my interests and skills is higher up on the list since I will be spending at least a quarter of my week on it. One of the biggest issues for me was not knowing which jobs exist and, more importantly, what qualifications/skills are needed to prepare for them. By hosting the Offspring Podcast and talking to other doctoral researchers that have already graduated, I have come to acknowledge that one learns more during the PhD than one might think.

The most obvious skills you learn during your PhD are of course the experimental and theoretical techniques. However, these might not always be useful for the jobs you are interested in. Companies probably do not care about my amazing ability to distinguish male from female fruit flies.

One, maybe less obvious, skill that doctoral researchers develop during their PhD is the ability to plan longer term projects from scratch. In the Max Planck Society (MPS), you are often a part of a bigger lab and need to be more independent from the start. This is a double-edged sword - it can either help you develop your own ideas or cost you more time if the project is less clear at the start. While this skill is not easily measured, project planning is a requirement for a variety of jobs, particularly in managerial positions.

"Companies probably do not care about my amazing ability to distinguish male from female fruit flies "

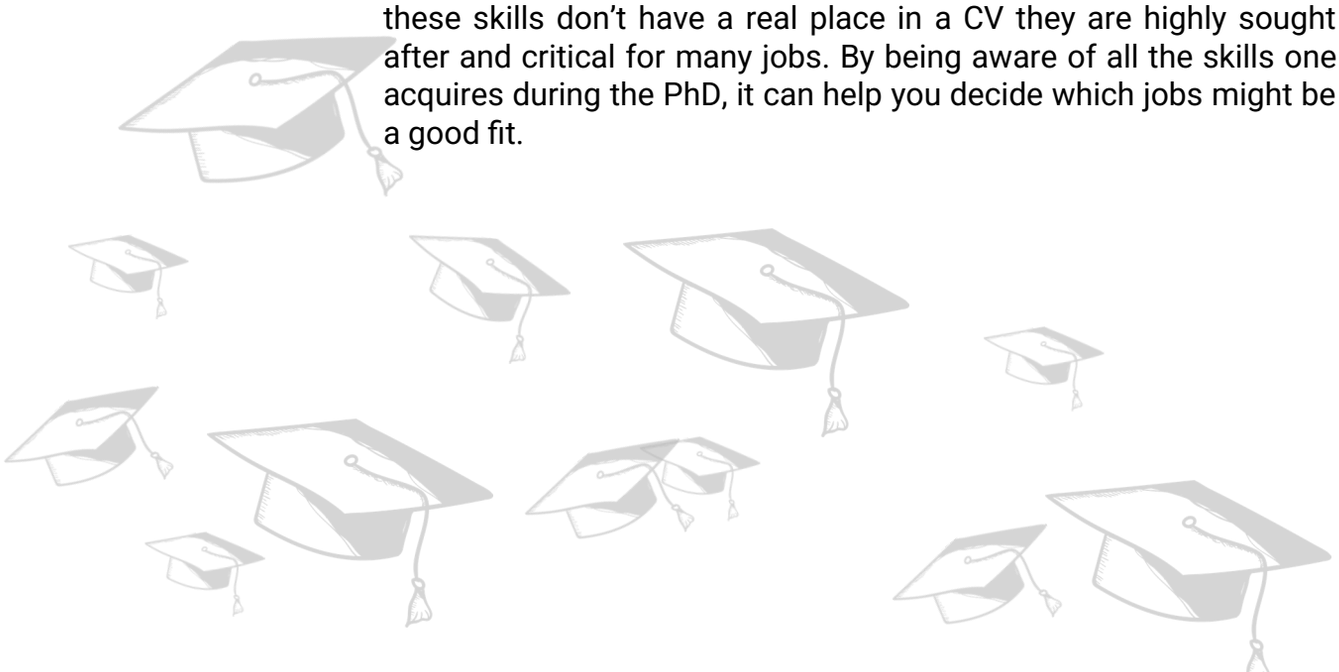
Another challenging side of doing science is that no one before you has done the same experiments and analysis. Therefore, one needs to constantly learn new things and connect different disciplines and methods. This need for constantly acquiring new skills as they become necessary gave me a different perspective on tackling problems. Instead of finding someone that could potentially help you, it is sometimes faster and more efficient to learn a new method or a programming language yourself. Also, literature research outside your own field of science can help you make new connections. Applying the methods and perspective of one field in another one can lead to serendipitous discoveries. During the time of the PhD, one becomes more autodidactic, changing one's way of thinking from "I need someone to do this for me" to "How can I do this myself?". One important side note, however, is the importance of recognizing when you do need help. As it is easy to spend a whole year or even longer learning something that another person/collaborator can do within a day. Finding the right balance between working by yourself and asking for help is important to make constant progress.

Another skill that is easily overlooked is clear communication. For researchers, it is quintessential to publish and communicate their findings to their peers. Therefore, it is necessary to break down your research into the important parts and disseminate the information in a way that is easily understandable. My time in the Offspring Magazine Workgroup has helped me to think more about what concepts need to be introduced for a specific audience. Aside from verbal communication, being able to write good proposals and papers can determine the outcome of one's career. Generally, I think during the PhD one learns how to communicate in a concise and coherent manner.

"While these skills don't have a real place in a CV they are highly sought after and critical for many jobs."

Last and potentially the most versatile skill doctoral researchers acquire during their research is the scientific method. This allows them to address any problems they encounter rigorously, finding an optimal solution quickly. With the world becoming more complicated, it is critical to determine what the root of the problem is and resolve it instead of just mitigating the symptoms e.g., as with climate change. In my opinion, this is basically what doing research is like. Furthermore, this way of thinking influences the way you address issues in every aspect of your life, be it fixing some home appliance or solving climate change.

From my personal point of view, I think these skills are somewhat overlooked as they are not acquired during a workshop or a summer school, but rather over a longer period of time by constantly having to work on one's research projects for hours on end. While these skills don't have a real place in a CV they are highly sought after and critical for many jobs. By being aware of all the skills one acquires during the PhD, it can help you decide which jobs might be a good fit.



In a long-distance relationship with my data

by Manali Jeste and Lea Heckmann

Illustration by Barbara Safaric and Nikolai Hörmann, Adapted from Canva

For most of us, an interest in astronomy develops when we are young and first look up and see the bright stars spread all over the sky. This curiosity then turns into a hobby as we have a closer look at these objects through a telescope, making all these twinkling stars, beautiful planets, and distant galaxies a reality. Later on, as some of us decide to dive deeper and deeper into the science of our universe, we forget about that curious child and stop looking up at the sky. The stars are not twinkling anymore, planets get lost in a sea of dead rocks and gas. The romance of shooting stars is lost: they turn into speckles of dust burning up in the Earth's atmosphere. Sometimes, however, science itself gives you the chance to reconnect with your curiosity. As an astrophysicist, observing the sky is no longer a project in your backyard, it is your full-time occupation. And every once in a while, you get to travel across the planet to work with your telescopes and start admiring these wonders of technology. Unfortunately, these valuable experiences, as so many others in the time of the pandemic, were put on hold. This particularly hit doctoral researchers hard, who had only recently been introduced to this aspect of astrophysics.

As a doctoral researcher in Radio Astronomy, I was lucky to have this experience at the beginning of my PhD when I got an opportunity to visit a radio telescope in Chile called APEX. Previously, during my Masters, I worked on data obtained by the same telescope, but had never seen it myself. At the time, it felt out of reach and unfamiliar. As I started my PhD, I travelled to the Atacama desert in Chile to conduct observations. This desert is the driest place on Earth, with very little precipitation and low light pollution, making it a perfect home to many telescopes working at different wavelengths. I was excited for this unique trip, which would probably have never happened if it weren't for those observations.

"And every once in a while, you get to travel across the planet to work with your telescopes and start admiring these wonders of technology."

Atacama Pathfinder EXperiment (APEX) telescope

Just half a year after my visit to APEX, when the pandemic began, telescope operations all over the world were suspended and when they did resume, many were being conducted remotely. Generally, we prepare for our observations half a year in advance, if not more. First, we ask for observation time at the telescope and then get assigned blocks of time adjusted to when the objects of interest are visible in the sky. In the time of the pandemic, we log in remotely and set everything up in our office, with our computers serving as platforms for sending our commands to the telescopes. At all times, we are remotely supported by our telescope operators who are present at the site of the telescope and are guiding us through the ongoing observations. Even though it is quite comfortable to do the observations from the office (or home if you are well equipped), I miss seeing the telescope move once I give the command or hearing the electronics buzz in the background, my favourite kind of white noise.

Travelling to the telescope site provides the opportunity to not only visit remote places but also meet the local team working there. We, the researchers, are more involved in the scientific part of the observations, while project scientists, astronomers, operators, and engineers make sure everything runs smoothly. When we visit, we get to actually see the instruments that are operated on the telescope - we see the wonders of science and engineering coming together to expand our understanding of the universe. Also, we get to interact with experts in the research field outside of their scientific work, leading to lively discussions, future collaborations, and maybe even job opportunities? Additionally, long shift hours in deserted places are a great way to form new friendships.

“The option of remote data collection will make astrophysics more accessible for everyone.“

Nonetheless, there are some advantages to remote operations as they offer a more inclusive environment for astrophysicists. For some scientists, travelling might be more complicated than for others – some might be restricted by their health, financial situation, family, or caring responsibilities; not even mentioning the environmental impact. The option of remote data collection will make astrophysics more accessible for everyone. Some of us can operate telescopes at the other end of the planet while staying at our desk and looking out into the backyard where once a kid stood and gazed up at the night sky. But the rest of us should get back the opportunity to look up at the stars on the other end of the planet while romanticizing these wonders of technology and collecting invaluable experiences.

Gone But Not Forgotten: Our Unfinished PhD Projects

by Birgül Akolpoglu and Aidan Wastiaux

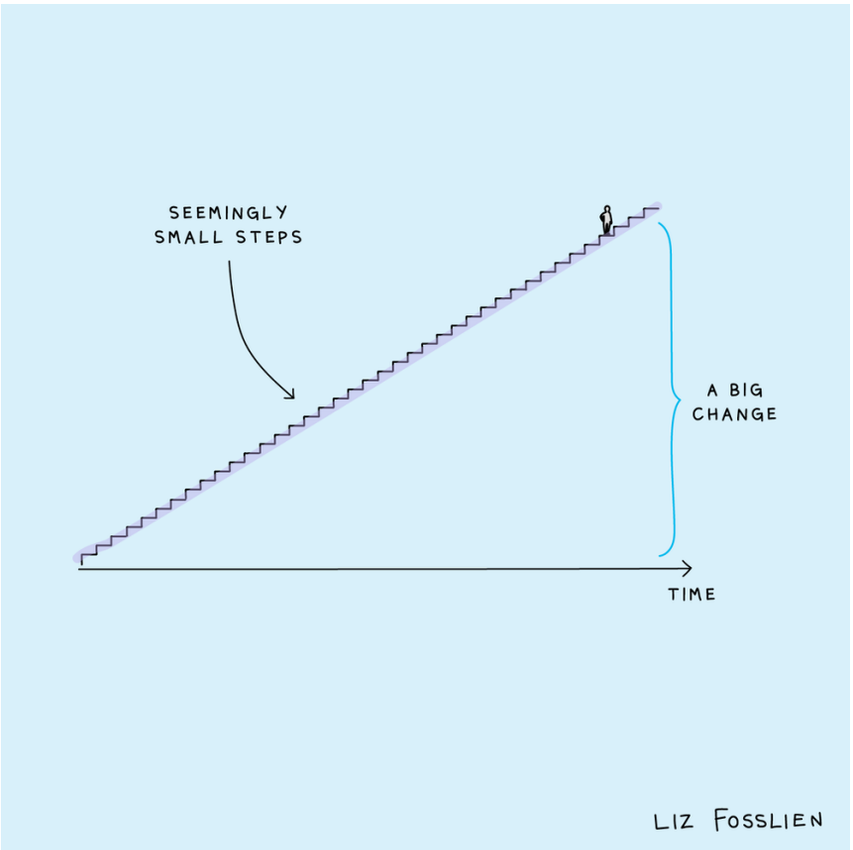
Next to the shrine of our PhD research lies the graveyard of our unfinished projects. This is a crowded, yet quiet place. Until some return to life...

After a few years into your PhD, we all know how the story goes: you have been working on a predefined list of experiments or simulations forming the core of your thesis, but the need for something more starts growing in you. One day, a small puzzle in a colleague's presentation makes a light bulb go off in your head. It's different! It's interesting! You feel that you could pull it off — your curiosity is piqued.

After some discussions, an outline, and a bit of reading, this personal side project takes off. Yet, there is an urgent abstract deadline for that cool conference, another manuscript to finish, and a group presentation in three weeks. This new idea needs to be placed on the back burner: you don't have the time for it, but it still occupies your mind. It's constantly bugging you, you just can't let it go.

"Undertake the smallest ideas and go ahead with the tiniest steps, they will bring you closer to the scientist you want to be."

You get the gist, we are talking about unfinished PhD projects. I have personally had several of these. To my surprise, unfinished PhD projects are a common phenomenon. Sometimes they branch out directly from the main research, and remain closely related to the thesis. Even though these projects are not a high priority, they are usually fun to work on, they could make a useful contribution to science, and are quicker to get started with thanks to the tools you have already developed. In other cases, like mine, these side projects may not even be relevant to the thesis. Indeed, in addition to the expertise in a very specific topic, we all develop many skills along the way, like using intricate instruments, programming complex algorithms, browsing literature, and, most importantly, seeing the bigger picture behind the new-



https://www.fosslien.com

est developments and research trends in our respective fields. It is only natural for our minds to start wandering around until they converge towards a specific idea. It is indeed a sign of enthusiasm that arises from our inner scientist, urging us to explore more.

During my PhD, I have been working on a particular topic for which I learned how to synthesize materials that are quite common and prominent in my field. After mastering my synthesis protocol and getting promising results on my experiments, I realized all the possibilities lying ahead. Especially a so-called 'hot' topic that made use of these materials for constructing more advanced structures sparked my interest, so I did some reading and started with the experiments to reproduce data from the literature. After preliminary measurements, I drafted a study outline with a colleague — we were very motivated and excited about the new idea. Then, of course, the experiment failed. But this is how science works: you fail 99% of the time. So, we did not lose faith and continued working on the project up to the point when a sudden realization brought it to a halt: I needed to get other work done if I wanted to have a coherent PhD thesis. Generally speaking, there could be many factors to end or pause a project: be it your supervisor asking you to focus on something else, or you losing interest after facing never-ending challenges, or simply a lack of time. Whatever good reason you had to put this work aside, the guilt is still there along with the feeling of letting your colleague down — but also yourself. Without having any more updates to share, I started avoiding my collaborators.

Yet, I did not want to drop the side project completely, so I subscribed to several Google Scholar alerts and kept reading the new articles on the subject. Even though I had really hoped to make progress in the meantime, I simply couldn't work on it anymore. Regrets piled up and this made the guilt creep in even more. Not to mention the fear of seeing a new article reporting on the exact same idea. I

"Sometimes we may not see the bigger picture and how our unfinished projects are just the tiny steps in the ladder towards a bigger success."

also felt helpless because my experiments did not produce enough data to publish anything concrete. So I couldn't help getting more and more frustrated day after day, until it was too late. Because, yes, another lab eventually wrote a paper on a similar idea. Naturally, I felt horrible when I saw that paper published in a very high-impact journal, and I profoundly regret having set aside my original idea in the first place. But then I acknowledged that, frustration and disappointment aside, I was also glad to have developed an idea interesting enough to be pursued by another research group and published in a good journal.

"Even if you don't see where you go,
small efforts can only take you up."

Lately, I have picked up two other unfinished PhD projects that I abandoned more than a year ago. I had to remind myself of the details and it took me some time to get familiar with the experiments again — but I was glad to see that I still maintained my enthusiasm after all this time. I don't have more time now than before — well, to be frank, I am busier than ever — but I decided that I didn't have to do it all at once. Now, I am spending my spare time on the projects whenever I can without really expecting any solid outcome. I feel very much at peace with this new approach, particularly after recognizing that, in the end, I will have gained a great deal of experience even though I wouldn't conclude the whole project. The collaboration, the exchange of ideas, the exploration of a new topic, and the learning of new methods: these are all substantial experiences that eventually make you a better scientist. Who knows, maybe we will keep exploring our 'unfinished' side projects during the next phase of our research career, or maybe someone else will pick them up and make an awesome paper out of them. At the end of the day, it is the tiny steps that lead to great progress; it is the journey that matters the most and not the destination.

#IchBinHanna

by Sarah Young and Lea Heckmann for the N2 board

Adapted for Offspring Magazine by Lea Heckmann and Barbara Safaric

It was the middle of a slow summer of 2021 when #IchBinHanna ("I am Hanna") erupted all over Twitter. #IchBinHanna is a reaction to the explanatory video by the The Federal Ministry of Education and Research, BMBF, which featured a fictional character named Hanna who works as a researcher on a fixed-term contract. She is happy about the freedom and flexibility that the fixed-term contracts are giving her and the academic system. Additionally, she, of course, knows that a scientific career has to be planned in advance and uses the support from the university to properly plan her career. The support that her university, naturally, provides. This explanation raises some questions. Do they mean the "flexibility" of having no job security? And does "career planning" involve starting over every time your two-year contract ends?

Three days into the social media campaign, BMBF released a statement and removed the video in question from the webpage – on a Sunday afternoon. But fret not! Good people of the internet uploaded it on YouTube. Just in the first month, #IchBinHanna was mentioned on Twitter more than 75 thousand times. And it kicked-off a months-long negotiation campaign - still ongoing.

irfilm zum Wissenschaftszeitvertragsgesetz

Following is an adapted recap of the statement from the N^2 Network, representing the interests of 16,000 doctoral researchers in non-university research institutions (AuF) in Germany, including the Max Planck PhDnet, sent to the Federal Minister of Education and the members of the German Parliament:
The outrage of the last months on social networks of **#IchBinHanna** clearly exemplifies the point of view shared by many researchers — not only is the Wissenschaftszeitvertragsgesetz ('WissZeitVG') outdated, there is also a dire need to reorient the academic system. The idea of a flexible system that is efficient only

through its high turnover has led to a lack of **diversity** and increased disadvantages for already vulnerable groups **by fostering dependencies** and the associated abuse of power. In addition, recurring turnover at almost all levels results in a consistent **loss of knowledge** that can only be compensated through more permanent personnel.

Wissenschaftszeitvertragsgesetz ('WissZeitVG') is a German law enabling and regulating fixed-term contracts for scientific and artistic employees of research institutions funded by the state. Fixed-term contracts are limited to an aggregated duration of 6 years during the PhD phase and additional 6 years afterwards and are connected to one's scientific qualification. After the 12 years, only permanent contracts are allowed to be given to an employee with some exceptions, such as third-party funding, parental leave, or the current pandemic.

As doctoral researchers, we asked to **adapt the contract conditions during the doctoral phase to match the actual situation**. We also called for the **full recognition of research achievements during the doctoral phase** as a valuable contribution to society that goes beyond private qualifications. In addition, it is not enough to limit the maximum fixed-term periods for employment contracts in science; **clear career paths to permanent employment** are required. It must be possible to plan a scientific career. The lack of structure and permanent positions has led to additional discrimination against already disadvantaged groups. The high level of diversity during the doctoral phase steadily decreases in subsequent career stages, limiting productivity and excellence

Additionally, the PhDnet survey has shown that 70% of doctoral researchers currently rate the availability of permanent positions in the scientific career path as unattractive. Just under half of the doctoral researchers surveyed consider the compatibility of their own career plans with a partnership or starting a family to be unattractive. These assessments are also confirmed by results reported in BuWiN 2021: 92% of academic staff under the age of 45 are employed on a fixed-term basis with an average contract duration of 22 months. At the same time, they have had an average of 6.3 fixed-term contracts since their first academic employment, and it takes an average of 10 years to reach a permanent position (BuWiN 2021). Excellent workers specifically seek out good working conditions. Therefore, we require a **fundamental rethinking**, in order to attract more excellence into Germany and to the non-university research institutions, to retain doctoral researchers in Germany and to **prevent** further **exodus of academic talent** .

We consider the **following points to be essential** in order to maintain and strengthen **Germany's competitiveness as a location for innovation and science** in the future:

1. Recognition of **doctoral performance as a scientific contribution to society** and invalidation of the image of the doctorate as a private qualification devoid of social value.

- Introducing a **full salary for doctoral researchers in all research fields**, rather than the often used part-time contracts, to reflect the full-time nature of doctoral work.
- Adjusting the **minimum contract duration of doctoral researchers to four years** to reflect the average doctoral duration of 4.7 years (BuWiN 2021).

2. Creation of permanent career prospects in both non-university and university research:

- **Permanent scientist** as a career option for academic research without personnel responsibility;
- **Permanent lecturer** as a career option for academic teaching without research tasks at the universities;
- **Group leader** as a career option for academic research with lower personnel responsibility and a perspective of possible promotion to professorship;
- The **professorship** continues to be the highest academic career level with a focus on science management.

3. Create clear career paths toward the previously mentioned career prospects to provide a clear framework for fixed-term contracts following the doctorate:

- Usage of a **'tenure-track'** system with a **clearly defined duration,**
- **Time limitation of the postdoc phase** without a previously defined 'tenure-track' option,
- Enabling an **orientation phase as a postdoc**, for example, in the form of an experience doing research abroad, with guaranteed time recognition in the event of a subsequent tenure-track career,
- Introduction of **clear and transparent guidelines** for tenure after the 'tenure-track' phase,
- **Limitation of time exceptions** in connection with **third-party funding** and **creation of permanent positions** funded by the federal government through third-party funding.

We are aware that the 'WissZeitVG' was intended to support new dynamics in academia when it was passed in 2007, and at the same time to regulate it in the interest of academic personnel. We recognize the basic idea and intentions behind the amendment in 2016 and **welcome the current evaluation of the law**. However, as already mentioned, we see the **need for a structural change in academia that goes far beyond the 'WissZeitVG'**.

In this regard, we also see positive trends in recent years and **welcome the efforts that policy makers have made** to address the issue as, for example, the 'tenure track program', the 'Excellence Strategy', or the 'Zukunftsvertrag Studium und Lehre stärken'. However, we assess the efforts to create **incentives and impulses** as **insufficient**. Additionally, we see the **limitation of the funding period** as a big hurdle. The **inherent volatility of third-party funding** in its current form removes incentives for creating more permanent positions, as **permanent funding** is **not guaranteed.** Therefore, in our view, there is a need for a better **balance between third-party and general funding**. We encourage the **change to a balanced ratio of permanent to non-permanent positions** with **clear and unambiguous structures and guidelines for states, universities, and AuFs** instead of the current usual incentives and expectations.

We are of the opinion that the **continuation of the above-mentioned approaches** in conjunction with the **further-reaching reforms,** that we have proposed, will make it possible to **strengthen Germany's position as a center of science in an equal** and **sustainable manner** and to succeed in securing its excellence.

Analysis of tweets for the #IchbinHanna campaign by #IchbinHanna Research Collective

Sources

www.youtu.be/PIq5GIY4h4E
www.gesetze-im-internet.de/wisszeitvg/BJNR050610007.html
https://github.com/LaserSteff/IchbinHanna

Meet a Researcher

by Leonie Keller

Hans Martin Maischein

In many labs, researchers come and go, but one thing that often stays consistent, thereby sort of representing the substance of a lab, are the technical assistants. They are often involved in maintaining the lab infrastructure and technical support that is needed to enable scientists to do their experiments. Sometimes, since they are in the field for a long time, some technicians develop unique skills, that many researchers are not able to do. They have a unique perspective on the daily science business, which is why we would not like to miss out on hearing it. I asked some questions to Hans Martin Maischein (fondly known as HMM), who is with the Max Planck society for about 30 years now. He is a *Koryphäe* (long term expert) in zebrafish cell transplantation experiments. You will see that his answers are precise and to the point. I originally thought about asking him to elaborate a bit, but since HMM and I have been working in the same lab for quite some time, based on my interactions with him, his way of answering questions mirrors his way of working: efficient, focused, and truthful, which is why we left it so.

Please introduce yourself to us

Hi, I am a technician, 50 years young, currently working at the Stainier Lab at the Max Planck Institute for Heart and Lung Research in Bad Nauheim.

When did you start working for the Max Planck society?

I started in 1994 at the MPI for Developmental Biology in Tübingen. I was hired by Christiane Nüsslein-Volhard.

What are your daily tasks?

Managing the fish stocks, drinking coffee, Injections, Transplantations, Spermfreezing, IVFs, hands on stuff.

What do you like about the Doctoral Researchers (DRs)?

Their Energy. Payment is low, working hours long, still they are all positive and motivated.

What do you dislike about DRs? What can they improve?

Fake confidence. I see no reason why some students these days can't accept their knowledge gaps or worse, blaming their shortcomings on others.

Do you have specific advice for DRs?

Never be afraid to ask.

What do you like about science?

The Energy it can create in people.

What do you dislike about working in science?

The Politics :)

If you wouldn't work as a technician, what do you think would you be working in?

Working in the woods. Did that in my youth :)

Anything else you would like to share with the scientific community? Insights, thoughts, etc.

Show people out there what we are doing, they are really interested in your work.

Meet a Researcher

by Leonie Keller

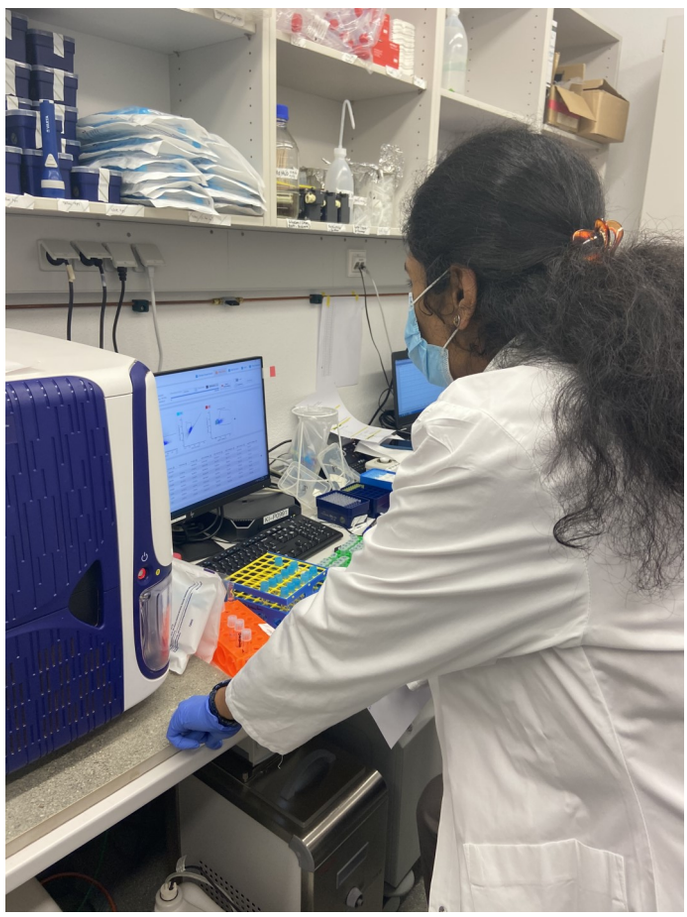
Dr. Malarvizhi Gurusamy

When we think about the Max Planck Society from the public perspective, the science is what we often focus on. Science is primarily about the persistent struggle to search for truth, as a result, science is often considered more of a calling than just a job. However, what we hear much less about, are the people involved in the science. The MPS is famously known to recruit scientists from all over the world and they pride themselves on their international reach. One such international scientist who was recruited as a PostDoc for the MPIHLR in Bad Nauheim is Malarvizhi Gurusamy. In our conversation with her, she explains her path to pursue science and her perspective on science and its role in our society. Based on my personal interactions with Malar, she is radiant, determined, intelligent and is brimming with positivity. Let's now hear what Malar has to say.

Please, introduce yourself, your background and what helped you along your way to find your interest in Science?

I'm Malarvizhi Gurusamy hailing from a rural village in Tamil Nadu state, India. I come from a Farmer family background, grown up working in the farm and taking care of cows and lambs after the school. I was passionate about learning more in medical science from my school time. However due to my higher score in mathematics from higher secondary examination, my parents joined me in q Bachelors Mathematics course in the college near my home. While doing Mathematics I realized that I really want to learn and do research in Biological Science and then I

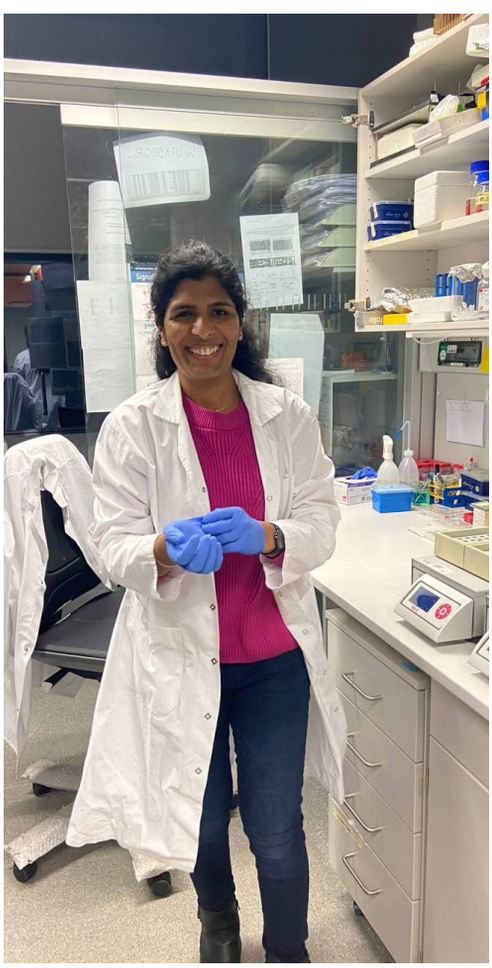
"Being in science is very exciting because we can test and experiment the thoughts and ideas we have…science brings various researchers together [and enables us to] collaborate [on] our ideas with experts"



decided to look for biology courses. After 1 year of Mathematics, I wrote and cleared entrance exam to join M.Sc., 5 year integrated course at Bharathidasan University Tamil Nadu, India. Then I did my PhD in the Dept of cardio pulmonary pharmacology, Jeonju, South Korea. Currently I am a post-doctoral Scientist at Dept Pharmacology, MPI-HLR, Bad Nauheim, Germany.

What are you working on? In which area, etc.

I am working on understanding the function of the orphan G-protein-coupled receptor P2Y10 in immune cells during neuroinflammation. Especially I am focusing on understanding the role and mechanism of P2Y10 in regulating CD4 T cells during neuroinflammation (e.g. Multiple Sclerosis).



What motivates you to pursue science?

I started understanding scientific concepts well only during my high School (Thanks to my Physics Teacher Mr.R.Magendran who taught us Physics in understandable way). It was very exciting and I was amazed with each small thing that I understood, this stimulated curiosity and motivation in me to pursue science.

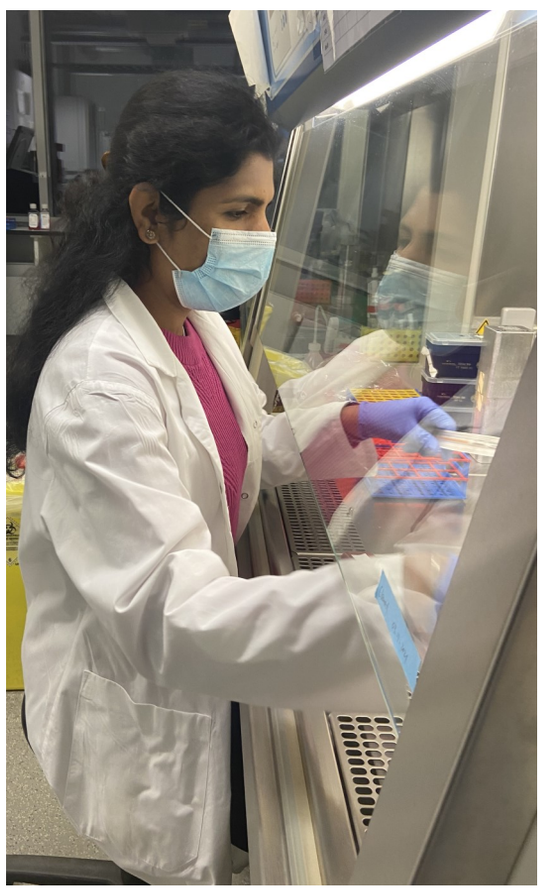
What roles do you think scientists have in society?

I think scientists have an important role in providing knowledge and information to the society from what they observed. During pandemic situation like now scientists are studying the disease and the Scientific knowledge learned from the study influences government's policy and decision making to avoid dangers to the society. In short Scientists are important for solving societal problems and improving the prosperity of human life.

What do you like about science?

I think all of us are very curious about everything during childhood. I remember during my school time I used to question my teachers not only in science but also in social

"...critical thinking, problem solving, resilience, adaptability, self-motivation and interest in social problems are important strengths one needs to have while working in science."



science and other subjects (I was called as doubt Dhandapani in a funny way by few of my Teachers). Being in science is very exciting because we can test and experiment on the thoughts (doubts) and ideas we have. I like the fact that being in science brings various field researchers together, we can discuss, learn and collaborate our ideas with experts in the field and help each other in interpreting the hard to understand observations.

What do you dislike about working in science?

Being in science, especially in academia is very uncertain with regards to job security. Lack of feedback or appreciation is one fact which affects motivation of scientists to pursue science. I dislike not being able to publish negative scientific results as well as lack of funding, I feel these are some of the major problems in science.

Which strengths do you think are critical to working in science?

I believe that curiosity, interest to learn and observing things around are very critical to work in science. However critical thinking, problem solving, resilience, adaptability, self-motivation and interest in social problems are important strengths one needs to have while working in science.

"From the knowledge I gained from my supervisors, I would like to advice junior researchers to keep up their curiosity, motivation and resilience. "

When did you decide that you want to become a researcher?

During my high school 9th grade, I read a book which explained about how Archimedes discovered his principle. This is the first scientific discovery I understood and I was so inspired to learn and understand more in science subjects. That time I decided that I want to become a researcher.

If you wouldn't be a researcher, what do you think would you be working in?

If I wouldn't be a researcher, I would probably be working as a Teacher or Farmer (just because of the experience I gained in the farm during my childhood).

Any advice for junior researchers?

I would say that I really got great principal investigators starting from my summer internship advisor Prof. MRS. Rao and PhD advisor Prof. Dongmei Wu. I really learned a lot from my current mentor Prof. Nina Wettschureck with regards to having clarity in thoughts, brain storming discussions, positive attitude even if the projects doesn't go the way we want, Ideas and importance of communication. From the knowledge I gained from my supervisors, I would like to advice junior researchers to keep up their curiosity, motivation and resilience. Just do your best and don't expect that every time your experiment will be successful. This attitude will help you to find the solutions for your scientific problems. Try to communicate, discuss and collaborate with your colleagues. Keep plan B, C, D etc. as an alternative to your plan A with respect to your hypothesis and experimental setup.

"Science is fun when we enjoy doing it. Communication and collaboration are the key factors for that. "

Which real world problem would you like to solve? What is your Vision?

I would like to solve health care related problems. I would like to see everyone in the world has accessibility to all the medical care to improve physical and mental health. I envision that we need to focus on environment and ecosystem management through strategic approach in reducing the usage of materials whenever possible. This would pave way for preventing natural calamities and spread of new diseases so that we can focus on solving current diseases.

If you had unlimited amount of resources to spend on one specific scientific problem, what would that be?

I will be very interested in understanding how immune system works differently during auto immune disease progression and cancer. Based on the understanding from those studies, I would like to develop immunotherapy.

Anything else you would like to share with the scientific community? Insights, thoughts, etc.?

Science is fun when we enjoy doing it. Communication and collaboration are the key factors for that. Thank you very much.

Offspring Magazine The Podcast Featured

Our podcast has just finished its 2nd season, making it to a combined 50+ episodes for you to binge while working at the bench or waiting for your code to finish running. Here, we want to highlight some of the more prominent episodes we had this season.

#2-01 Writing and Evaluation of ERC Grants with Dr. Ino Agrafioti

Scan the QR code to hear this podcast!

Dr. Ino Agrafioti is a scientific officer and coordinator for Panel LS1 of the European Research Council (ERC). In the interview, she talks about the European Research Council, its structure and organization, and what types of research funding it provides.

In this episode, Ino goes into the nitty gritty details of writing a good ERC grant application, its requirements and deadlines. She shares more information on how the selection panels are constructed to avoid biases and gives some invaluable tips on how you can make the selection process easier for yourself, and increase your chances to get an ERC Starting Grant!

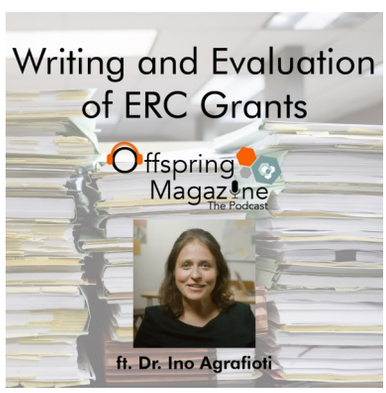


Photo by Wesley Tingey from Unsplash - ERC

#2-18 What is Polycystic Ovary Syndrome (PCOS)? with Dr. Pooja Sagvekar

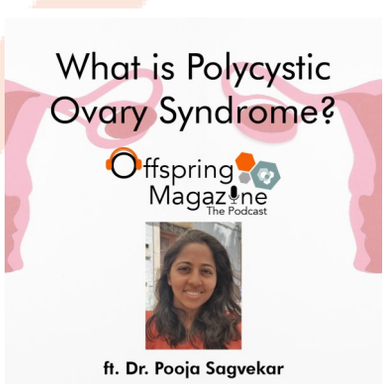


Photo by Nadezhda Moryak from Pexels

September 2021 is Polycystic Ovary Syndrome (PCOS) awareness month. Despite the high prevalence of the syndrome (around 10-15% of women are estimated to have PCOS worldwide), 50% of the cases go undiagnosed and most only learn they have PCOS when trying to conceive, all due to the low awareness and stigma associated with the condition.

This episode is an interview with Dr. Pooja Sagvekar, a postdoctoral researcher at the Max Planck Institute for Heart and Lung Research, who wrote her doctoral dissertation on epigenetic factors in PCOS. Pooja goes into detail about the diagnosis of the disorder, its symptoms and their treatment, as well as potential triggering environmental factors.

Episodes

by Nadya Pirogova

#2-12 The Life and Career of an Engineer with Prof. Johann-Dietrich Wörner

Prof. Dr.-Ing. Johann-Dietrich “Jan” Wörner is the President of the German National Academy for Science and Engineering (Acatech) and the former Director General of the European Space Agency (ESA).

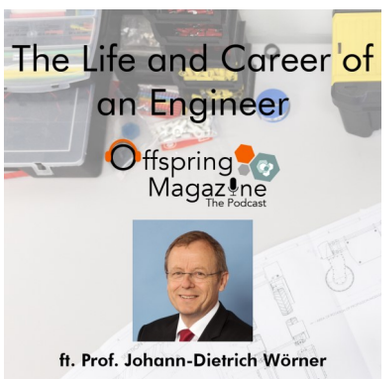


Photo by ThisisEngineering RAEng on Unsplash

In this interview, Jan tells us the story of the very indirect path that took him from studying Civil Engineering in Darmstadt to his current position, including a visit to a nuclear plant in Japan, research into earthquake safety, airplane hangars design, and the conception of the Moon Village.

As a former Director General of ESA, Jan talks about what Space 4.0 means, and the importance of taking responsibility for cleaning up the space junk. From his current position at Acatech, Jan also emphasises some of the most important principles when communicating science to politicians to influence policy making.

#2-14 Being Inclusive in Academia with Dr. Sofia Forslund

Pride month might be over but the conversations about being LGBTQIA+ in science does not end there. ¶

We talked to Dr. Sofia Forslund, group leader at the Max Delbrück Center for Molecular Medicine, about being queer in academia and inclusive scientific environments. She talks about her experience with transitioning while looking for a group leader position in a queer-friendly lab, institute, and city.

Photo by Sharon McCutcheon on Unsplash

Sofia talks about what it means to be an ally and how to create an inclusive and welcoming environment in academia. The conversation also emphasises on tokenizing, gender dysphoria, feminism, toxic masculinity, and the importance of anti-discriminatory policies.

#2-29 A Nobel Science Conversation with Prof. Benjamin List

2021 Chemistry Nobel Laureate was Prof. Benjamin List, director at the Max-Planck-Institut für Kohlenforschung, who was awarded the Nobel Prize for "the development of asymmetric organocatalysis".

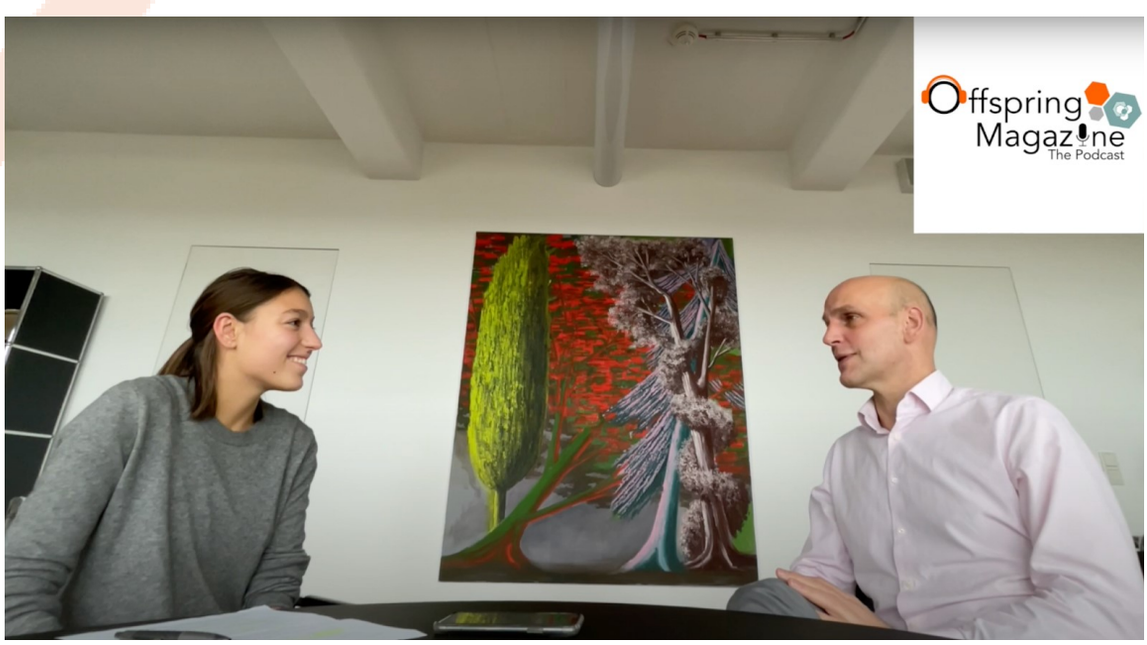
In this interview, Benjamin talks about his work, the pivotal point on his way to the discovery of organocatalysis, and what this discovery meant for pharmaceutical research, medicine, and industry.

"I have this new sentence I like to say, it's something I invented, I think: 'catalysts are just one molecule away from magic'. Because, if you think about it, you have a certain material and then you use your magic stick and it's converted into something else - like a bouquet of flowers into a rabbit, for example.

A catalyst can accomplish something like this. And this one single molecule then does what is called a 'turnover' and it turns over one material into the other one and, in that sense, it's almost magic. That's why I'm in love with catalysis. But what's beautiful about catalysis is also that it is a technology and, I would argue, something I realized recently, the single most important technology that humans have."

Benjamin talks about mRNA technology, transition-metal catalysis and organocatalysis, basic research in organic chemistry, advances in the field, and questions that are yet to be answered.

Benjamin emphasised the need to make chemistry greener in response to the biggest challenge that is global warming. He also discussed the difficulty in translating the special language of chemistry to illustrate its ubiquity in every part of our lives.



#2-28 A Brief Welcome to the Universe with Dr. Neil deGrasse Tyson

Dr. Neil deGrasse Tyson is an astrophysicist, author, and one of the most famous science communicators, focusing on the biggest topic there is: the Universe.

In this episode, Neil talks about his new book, *A Brief Welcome to the Universe: A Pocket-Sized Tour, and the fundamental question that it raises.*

A Brief Welcome to the Universe offers a breathtaking tour of the cosmos, from planets, stars, and galaxies to black holes and time loops. Propelling you from our home solar system to the outermost frontiers of space, this book builds your cosmic insight and perspective through a marvelously entertaining narrative. <..> this pocket-friendly book is your passport into the wonders of our evolving cosmos.

https:/press.princeton.edu/books/paperback/9780691219943/a-brief-welcome-to-the-universe

We talked about quantum physics, identifying planets with alien civilizations, and the concept of the Multiverse.

"We're a part of a fabric that is expanding. And our space time, with a 14 billion light year horizon since when the the oldest light that has reached us, is expanding in this larger meta spacetime, if you will, and each pocket is then a whole other universe that does not interact with adjacent Universes."

Neil shares his approach to communicating science, our responsibility to communicate it effectively as early career researchers, and how to talk about science without being patronising, while encouraging critical thinking.

"Humor matters. If people smile and they even laugh while they're learning, then the learning becomes a joyous experience and then they come back for more".

Do you wanna join the Podcast team? Email us at

offspring.podcasts @phdnet.mpg.de

The Max Planck PhDnet

Offspring Magazine and Podcast Group

Did you always enjoy writing? Are you interested in Science Communication? Do you want to be involved in creating podcast episodes? Or are you up for managing our social media accounts?
Our Offspring Group manages the outreach for the PhDs inside our network by releasing weekly podcast episodes and compiling a yearly magazine.

Secretary Group

Do you want to help us give the PhDs from all institutes a voice? Also, do you enjoy being in contact with many people or want to improve your organizational skills? Then check out the Secretary Group who organize the elections of representatives at the institutes and therefore maintain the legitimacy of the PhDnet.

Webgroup

Have you always wanted to know how to make a website? Or do you have hidden web design skills and want to bring them to use?
Our Webgroup manages our PhDnet website, where you can find info about all of our working groups, our events, and PhDnet news

General Meeting Group

Do you like to organize meetings, design an interesting programme, and think about innovative social events to make our PhDs interact?
The General Meeting Group organizes our yearly general meeting, which helps us to reform our network every year and brings us all together!

PhDnet Steering

Spokesperson
Hang Liu

Deputy Spokesperson
Alina Fahrenwaldt

General Secretary
Anna-Dorothea Heller

Working Groups

Career Development & Conferences Group

Do you want to enjoy a unique opportunity to network with partners in industry? And you like organizing seminars, events and workshops?
Our Career Development & Conferences Group offers amazing support for all of us in our career choices. For example, they organize weekly seminars 'FromScience2Industry'.

Survey Group

Do you want to investigate the situation of PhDs in the MPS and find out what should be improved? And do you like organizing people, dealing with data, or writing reports?
Our Survey Group is compiling the yearly survey, which is our main tool for improving the situation for all PhDs (e.g. change from 20 to 30 holidays in 2019, raise of the base salary in 2021). They design the questions, send out the survey, analyze the data, and write the final report.
Check out last year's report on the PhDnet website.

Equal Opportunities Group

Are you passionate about equal opportunities and want to improve the diversity, equity and inclusion in the MPS?
Our Equal Opportunities Group focuses on all the topics related to diversity in the MPS, comes up with initiatives, and works towards establishing a welcoming environment for all PhDs.

Open Science Group

Do you care about making science more accessible and transparent? You want to know more about Open Science practices? Our Open Science Group discusses, develops, and promotes Open Science strategies. Don't forget to check out their paper on recommendations for Open Science strategies in the MPS on our website.

Group 2022

BM Section Representative
Maria Leonte

CPT Section Representative
Jonas Sinjan

HS Section Representative
Danielle Pullan

PhDnet General Meeting 2021

This year, the PhDnet General meeting took place online from 25 to 27th October. Major highlights of this GM involved a panel discussion on the topic of diversity inside the MPS, a session discussing the working conditions of doctoral researchers with the General Administration, highlights of our PhDnet working groups as well as showcases of the science done by PhDs in our network.

We would particularly like to mention Dr. Asifa Akhtar (BMS VP) who gave the welcome talk and contributed the GA perspective together with Frauke Logermann (Talent, Gender & Diversity) to our diversity session. Furthermore, Kerstin Dübner-Gee (Head of HR Department), Signe Tuborgh (HR Development Manager), Ilka Schießler-Gäbler (Programs & Networks- Alumni, PhDnet & Career Steps Network) and Britta Schluttenhofer participated in our working conditions session.

The working groups also presented their topics of interest from the previous year, and last but not least, we elected the new steering group for the year 2022.

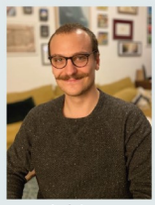
If you attended the GM this year, we hope you learned about the structures and collaborations of the PhDnet and especially about the opportunities provided for you! In case you missed it or you would like to revisit some of the topics of your interest, please find the slides and a summary of the general meeting on the PhDnet website.

We would like to thank everyone for their support and participation and see you all next year!

Sincerely,
Your 2021 Steering Group

Illustration by Barbara Safaric. Adapted from Canva

Meet the Team



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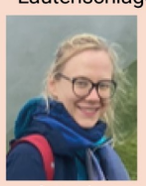

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