BioS Reports

Glimpse into the activities of the
Master's course "Biology in Society"

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SCIENCE UNPACKED - THE BIOS PODCAST

Science at Work: An Interview with Dr. Olya Vvedenskaya

Ezgi Ece Yavuz

Studies are over and the job hunt begins. Once again, there are so many new things to learn and consider. Luckily, we talked to Olya Vvedenskaya, MD, PhD, who generously shared her career experiences. After a PhD in multi-omics and a postdoc in lipid research, she joined the Dresden-based biotech company Lipotype as a Senior Scientific Communication Manager, where she focuses on making science more human-centered. For the full interview, tune in on Spotify.

Ece: Thank you for joining us, Olya. How did your career evolve from medicine to research to science communication?
Olya: I always wanted to work in science within healthcare. Even in medical school, I knew I'd choose research over clinical practice, as I was more interested in developing solutions that improve lives. I entered lipidomics by chance, while working on my MD thesis. I believe luck and personal fit strongly shape career paths. My science communication path crystallized when a friend asked how I'd like the future to look. I said I wanted a world where education and healthcare are accessible to all, with education as the foundation. Looking back, my initiatives, including science communication, mental health awareness, and mentoring, connect to that idea.

For readers unfamiliar with lipidomics, how would you explain it?
Lipidomics analyzes lipids in samples like blood, urine, tissues, or model organisms. Lipids are essential for metabolism as well as for skin and brain function. They are involved in diseases such as diabetes, obesity, and neurological conditions. Lipidomics helps us understand these processes better.

How do you make complex science accessible in your work at Lipotype?
It depends on the audience. Most of our clients are scientists, so translating concepts is easier than for the general public. For patients or the public, we add more context and simplified explanations. Patients aren't interested in molecular pathways. They want to know how lipids and diet may improve their lives. I believe the key is empathy, putting yourself in the audience's shoes.

If someone dislikes public speaking but wants to pursue science communication, what career options do they have?
It's a common misconception that science communication means running a YouTube channel. There are many other roles. People write web content, press releases, brochures, webinar slides, manage social media, and organize conferences. You don't need to be in front of a camera. Tech and biotech companies need people with a science background because responsible communication requires subject knowledge and understanding of what a company does and why. AI can help with drafting, but human revision is essential.

What do you look for when mentoring or selecting interns?
Motivation. If someone says, "I am tired of only research and I want to try science communication, please teach me," that is strong motivation. Internships should benefit people who are exploring and may be unsure about this path but are motivated to check it out.

What is your advice for students who are unsure about academia versus industry career paths?
Do internships. Also, start by identifying what you do not want. Many people feel pressured to decide right after obtaining their degree. It's entirely normal not to know right away. Find out what is essential to you. Everyone's priorities differ. As an immigrant, I valued visa stability first. Secure basic safety, then plan your next steps. Use mentorship programs and online networks. Your direct supervisor does not have to be your only mentor.

Why is burnout in science still rarely discussed, and what should supervisors change?
Burnout is common in many goal-driven jobs. WHO classifies it as a work-related syndrome, not a disease. It is systemic and cultural. We often glorify overwork and expect resilience in unhealthy environments. We need healthier systems, not yet another resilience workshop. Real breaks matter. It can be a genuine vacation or something as simple as a 3 p.m. coffee. In the end, it is up to leaders to set the environment. Students cannot fix hustle culture on their own.

Last question, what brings you joy outside of work?
Nonprofit work gives me more energy than it takes. I also love art and collecting affordable pieces. I'm content when my daily work aligns with my values.

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Marit Scheuringer

After last month's deep dive into hormones, Philine and I continued the conversation with Dr. Annekathrin Keiler and Prof. Oliver Zierau. We explored how doping-testing works and how results are protected from manipulation. We also discussed hormone research, from menopause to cyclicity, and how this research reaches far beyond elite sport.

EXCURSIONS AND OTHER NEWS

Small insights in BioS points of view, field trips, and other stuff we do.

Fail Better - The Art of Failure in Research

Marit Scheuringer

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The dread of a failed experiment is familiar to anyone in research. You don't want to make a fuss, but what happens when everyone keeps their failures to themselves?
On Friday, December 5th, I attended Fail Better – The Art of Failing in Research, an event organized by StuFoExpo (Student Research Exposition), created to make failures visible and show that they are a normal part of research.
A room filled with bright young minds, rows of chairs, a projector, and tables of snacks, drinks, and posters, became a stage for students to open up about failure, no matter how big or small. One space-systems researcher told the story of the Mars rover Electra, which once spun helplessly in a crater, out of reach from ground control. Yet the team didn't give up. Year after year, they faced new errors, learned from each setback, questioned previous decisions, and eventually earned second place in the European Rover Challenge (ERC). Three student pitches followed: Riya Rajayyan talked about unstable electrode coatings, followed by Julia Kampa's unsuccessful search for literature on mentoring immigrant women, and a glacier-modelling project that grew far beyond the limits of a short internship by Salar Sarvarinouri. Poster sessions afterward sparked discussions about recurring issues for students in toxic research structures, the need for better supervision, and how each student learned to move forward after failure.
The evening continued with a Science Slam "Failed to Reproduce", by Gabriel Pinto Veas. Being a BioS master's student himself, he used his knowledge in science communication to offer an emotional, honest look at the obstacles life can place in an already steep and exhausting research journey. Research is difficult even on a good day, so taking a break when life becomes overwhelming is not admitting defeat but choosing to prioritize yourself.
Finally, we created our own "first aid cards" for navigating setbacks. When failure happens, pause, ground and regulate your body, acknowledge and accept your emotions in that moment. Then gently widen your awareness and choose one small supportive step, like calling a friend. Failure is a shared experience, and talking about it openly helps all of us learn how to "fail better."

CORRIGENDUM


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In the fig wasp article (Issue 21) we found an error about the economic values. The revised sentence is: "Every year Türkiye produces around 300.000 tons of figs, generating an export value of US $284,492,000 in 2019."

EXCURSIONS AND OTHER NEWS

Citizen Science - Research with the Public

Philine Lea Hampe

Ever wanted to contribute to real scientific research? Why not get involved in Citizen Science? Citizen Science enables everyone to actively take part in research, from defining research questions and collecting data to analyzing results and publishing them [1,2]. In doing so, citizens not only advance scientific knowledge, but also provide insights relevant to society and politics.
Public participation matters for several reasons: For one, many research projects rely on large volumes of data that cannot be gathered by full-time scientists alone. Furthermore, Citizen Science improves public understanding of science and brings science and society into closer dialogue, an increasingly important factor amid growing public distrust in science [1]. While committed citizens have been researching and documenting natural phenomena for centuries, Citizen Science projects have become far more widespread in recent years. This is partly due to social media and apps, which make participation more accessible. Opportunities range from stargazing to tracing your own family history or supporting dementia research by playing interactive games [3,4].
Speaking of biology, there are even some local projects in Saxony, such as "Insects of Saxony", led by Dr. Matthias Nuß. Participants can report their insect observations using the webpage or app, adding to a growing collection of more than 500,000 records across nearly 10,000 species [5]. With just three clicks, participants help build an information platform on native insects, ultimately contributing to biodiversity research right outside their doorstep.
Who knew that getting involved in research could be this easy? If you're ready to dive in, check out the website or app **here**.

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