

BIOPHYSICS NEWS

BIOPHYSICS AUSTRIA

Presentation of the new BA President

by Univ.-Prof. Dr. Bernhard Flucher, Institute of Physiology, Medical University Innsbruck



Dear BA members, dear colleagues,
As the new President of BA, I want to introduce myself and my ideas for our society. I am a native of Salzburg, where I also received my academic training. I started my independent scientific career at the National Institutes of Health, Bethesda, USA. There, I discovered my love for voltage-gated calcium channels, which have since dominated all my research activities. Back in Austria, I established an active research group at the Medical University of Innsbruck and – with the help of many talented lab members – ventured deep into studies of the structure and function of calcium channels. The spectrum of our methods ranges from modeling protein structure, molecular biology, electrophysiology, and cell biology, to studying the function of the channels in muscle and brain and their diseases. My research activities were fully funded by grants from the FWF and EC, and I was involved in leading an FWF-funded PhD program

and participated in European Marie-Curie training networks. Besides our scientific outputs, I am particularly fond of a fair number of graduates who now successfully contribute to academic research in many different places. For many years, I have been a member of the Austrian Biophysical Society, the Biophysical Society USA, and the Austrian Neuroscience Association. For the past twelve years, I served on the FWF Board of Councilors in the field of neurosciences.

As president of BA, I want to continue the successful work of my predecessors in building and strengthening the biophysics community in Austria. By getting to know each other and exchanging ideas, young researchers and new recruits in our field shall become connected to established research teams and thus profit from the available methods and technologies, as well as from funding and career opportunities in Austria. Together, we want to make the research subjects and approaches of biophysics known to the Austrian science community and public, and thus promote appreciation and trust in science throughout our society. Central to this endeavor is our biennial BA conference. Your membership fees and revenue from conferences and sponsorship enable BA to finance travel grants and poster prizes, as well as initiatives to support our junior scientists.

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tists. All this depends on the participation of as many of our members as possible. Therefore, I want to encourage you to become active in our society and to use BA as a platform for exchanging your ideas and implementing your initiatives. Soon there will be an opportunity to connect with BA in our “Open Board Meeting,” conducted online on December 6, 2024.

I am looking forward to working together with you for the biophysics research community in Austria.

ENGAGE ACTIVELY IN OUR SOCIETY AND USE BA AS A PLATFORM TO EXCHANGE IDEAS AND BRING YOUR INITIATIVES TO LIFE.
JOIN OUR OPEN ONLINE BOARD MEETING, REGISTER [HERE](#)
DECEMBER 6, 2024 AT 3PM

Biophysics Austria Biennial Conference

Salzburg, Austria - A review to three outstanding days!

By Bernhard Flucher

From July 8th to 10th, 2024 about eighty national and international Biophysicists assembled in Salzburg for the second biennial meeting of the Austrian Biophysical Society. Judging from the turnout, the lively atmosphere and the intensive discussions, I consider this meeting a great success and valuable asset for the Austrian biophysics community.

After several years of conducting our meetings in combination with the ÖGMBT congress, BA had decided to conduct their regular meetings separately on a biennial schedule. In summer of 2022 this format has first been explored at the Strobl meeting and the response was unanimously positive. Encouraged by this experience, we organized the 2024 meeting in Salzburg, hoping to repeat the success of the first meeting, attract an even larger fraction of the Austrian biophysics community and to establish this meeting format as a tradition of BA. Thanks to all of you, these goals have been achieved.

As already two years before in Strobl, I was impressed by the breadth and high quality of biophysical research conducted in Austria. We had the privilege to hear presentations by world-leaders in their

respective fields, we learned about state-of-the-art new technology developments and saw how years of innovative and persistent research provides answers to long sought scientific problems. Besides presentations from our BA “Urgestein” of well established scientists and traditionally strong research groups, we invited oral presentations by colleagues who only recently moved to Austria and established their labs at Austrian research institutions. Welcome in our Society and thank you for your contributions to our meeting!

A particular joy was to listen to many wonderful talks by our young scientists. About half of our oral presentations were reserved to young scientists—young group leaders, postdocs and experienced PhD students—all of whom impressed us by their fine science and excellent presentation skills. The same is true for the poster presentations, which throughout were of top quality. However, all these perfect presentations would have been of little value, if the general audience would not have so actively participated in the discussions, both at the oral presentations and at the posters. We had plenty of time scheduled for discussions and the audience made very good use of it. My personal highlight of the meeting, however, were the poster presentations, which went late into the evenings. Hearing the buzzing scientific discussions in the poster hall even at 11 p.m., while competing with the broadcast of the soccer European championship semifinals in the room next door, is the utmost testimony for the great enthusiasm for science and the commitment to the meeting experienced at our Salzburg conference. Thanks to all of you for making this happen!

Yet, there is more to organizing a success-

ful meeting: This year we had several industrial sponsors and presenters, who contributed to the professional merit by presenting innovative products and making financial contributions. In preparing the meeting, I experienced much commitment and help from the members of the BA board and beyond. And particularly



Renate Androsch-Holzer and her team from RAM consulting provided the professional support before and kept my back free during the conference. Indeed this meeting was a (BA) community effort and the success belongs to all of us. Cheers to you!

I hope that you too experienced our BA biennial conference in Salzburg as a valuable scientific meeting and that what you have learned at the meeting, colleagues you have met and cooperations established will continue to boost your research as well as your commitment to the Austrian Biophysical Society.

Thanks for attending and contributing! I hope to see you and your team members again at our next meeting in summer of 2026.

Bernhard Flucher
Meeting Organizer

President of the Austrian Biophysical Society



Summary of the General Assembly of the Austrian Biophysical Society 2024

By Rainer Schindler

The general assembly started with Prof. Elena Pohl, chair of biophysics Austria, who delivered the activity report, highlighting six board meetings conducted both virtually and in person. She emphasized the ongoing administrative support from RAM Consulting GmbH in organizing conferences, acquiring sponsors, and assisting with the newsletter. The new website designed by Dr. Tony Schmidt was showcased, along with the society's efforts to support PhD students and postdocs through travel grants for the EBSA Meeting 2023 and the Biophysics Austria Meeting 2024. Additionally, four €100 poster prizes were awarded at the Biophysics Austria Conference.

The treasurer, Assoc. Univ. Prof. Dr. Andreas Horner, presented the financial report with very positive savings, that will allow to continue the support travel grants and poster prizes for BA members.

For the next period the whole assembly of biophysics Austria voted for Prof. Bernhard Flucher, the former vice-chair, as president of BA. A new board member is Prof. Sandro Keller, chair of biophysics at Uni Graz as new Vice President. Assoc. Prof. Rainer Schindl was voted to continue as Secretary General as well as Assoc. Prof. Andreas Horner as Treasurer, Prof. Thomas Stockner as Recording Secretary, and Prof. Elena Pohl as Past President. Prof. Pohl expressed gratitude to outgoing board member FH Prof. Birgit Plochberger for her dedicating to support BA activities over many years.

During member discussions, the topic of increasing female representation on the board was addressed, with Prof. Pohl encouraging active participation and emphasizing the society's commitment to gender balance. She also suggested organizing a social mixer at the next EBSA Meeting and reminded members of the benefits of BA membership, including discounts for EBSA and IUPAB meetings, as well as travel grants. Newly elected president Prof. Bernhard Flucher outlined the board's goals for the coming years, which include strengthening the biophysics network in Austria, supporting the community with travel grants and poster prizes, and raising the profile of biophysics through outreach initiatives like open labs and summer schools. The next board meeting is scheduled for Fall 2024 and will be open to all interested members.

Scientific Highlights in Biophysics – 2025

By Elena Pohl

National and international conferences serve as key platforms for presenting groundbreaking research, fostering collaborations, and advancing the field of biophysics. The upcoming year is packed with notable events, and three conferences in particular are must-attend for anyone in the field.

The Biophysical Society's Annual Meeting, the largest event of its kind, is set for February 15-19, 2025, in Los Angeles, California. With over 5,000 participants, this meeting will showcase the latest research across a wide range of biophysical topics and feature plenary lectures and talks from world-renowned experts. A highlight of the event is the 2025 Biophysical Society Lecturer, Eric Gouaux from Oregon Health and Science University, who will

present on "From Clamshells to Clefts: The Molecular Basis of Synaptic Transmission."

For full details, visit: <https://www.biophysics.org/2025meeting>

Another major event, EBSA 2025—the biennial congress of the European Biophysical Societies Association—will take place from June 30 to July 4, 2025, at La Sapienza University in Rome, Italy. This congress focuses on cutting-edge European biophysical research and is an absolute highlight of the biophysics summer! Topics will include advancements in cryo-electron microscopy, membrane biophysics, computational biophysics, and innovative biosensors.

For more information, visit: <https://www.ebsa2025.org>

In addition, the BPS Conference "Proton Reactions: From Basic Science to Biomedical Applications" will be held from August 3-8, 2025, at the Holiday Inn Estes Park, Colorado. This conference will focus on the latest developments in proton transport mechanisms, a pivotal topic in classical biophysics. Speakers include distinguished experts such as Joachim Heberle, Gerhard Hummer, Peter Pohl, Jochen Hub, Ana-Nicoleta Bondar, among others. The program is designed to foster engaging scientific discussions in the serene environment of Estes Park.

For the full list of speakers and the program, visit: <https://www.biophysics.org/meetings-events/bps-conferences/2025-proton-reactions-bps-conference>

For more details on upcoming biophysical meetings, visit the Biophysics Austria homepage or check out <https://ebsa.org/portal/meetings-of-interest>

Special Issue in European Biophysics Journal (Springer Nature)

By Elena Pohl

Dear members of Biophysics Austria, dear colleagues,

We are excited about the success of our recent meeting, which sparked the idea of

a Special Issue to showcase key research topics and working groups in Austrian biophysics.

This Special Issue will be published in the European Biophysics Journal

(Springer Nature), a respected journal and the working title is “Special Issue: Biophysics Austria,” which may be ad-

justed after reviewing all contributions.

The submission deadline is 15th December 2024. Please email me informally if you plan to contribute.

Elena E. Pohl

(elena.pohl@vetmeduni.ac.at)

<https://link.springer.com/journal/249>

Young researchers introduce themselves: Anna Stoib

Institute of Biophysics, Johannes Kepler University Linz

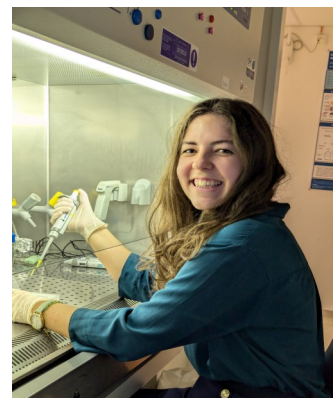
During my practical course in Molecular Biology, as part of a combined program at Paris-Lodron University Salzburg and Johannes Kepler University Linz, I developed an interest in the intricate mechanisms of membrane proteins. I pursued this fascination in my bachelor's thesis at the Institute of Biophysics in the lab of Prof. Peter Pohl. I enjoy diving into experimental challenges and the satisfaction to overcoming them once in a while. My commitment to scientific inquiry and skill development led me to establish yeast growth assays from scratch during my master's thesis in Prof. Andreas Horner's lab at JKU Linz. This innovative approach aimed at complementing the group's expertise of characterizing overexpressed and purified membrane proteins reconstituted into artificial lipid bilayer systems.

In these assays, we test the functionality of exogenous proteins expressed in deletion strains by monitoring growth or survival. Yeast cells can thrive under specific conditions only if the exogenous protein compensates for the function of the missing endogenous protein. For us this method serves as an *in vivo* screening tool to identify the position and functional impact of amino acids involved in the acid-gating mechanism of the urea channel UreI from *Helicobacter pylori*.

Thanks to the ÖAW's DOC fellowship awarded in 2022, I am advancing this method into a high-throughput platform for functional testing of membrane proteins in the Horner lab. My PhD thesis aims to systematically assess all possible 4,000 point mutations of *HpUreI* in a single experimental setup, employing

next-generation sequencing to evaluate their impacts on channel permeability and gating.

As a young researcher, I am grateful for the support and warm welcome from the biophysical community, including travel awards that have allowed me to present my research at events such as the Biophysics Austria meeting in Salzburg and the European Biophysics Congress in Stockholm in 2023.



Upcoming Events

Open Board Meeting of the Austrian Biophysical Society
December 6, 2024 Online

Biophysical Society's Annual Meeting
February 15 - 19, 2025
Los Angeles, California

EBSA 2025
June 30 - July 4, 2025
La Sapienza University, Rome

BPS Conference
August 3 - 8, 2025
Holiday Inn Estes Park, Colorado

BIOPHYSICS AUSTRIA

Benefits for members:

- Newsletter
- Biennial Meeting
- Reduced Conference Fees
- Platform for networking
- Free EBSA and IUPAB Membership
- Compilation of job offers in biophysics

Be part of it, join our community and register now and here:

www.biophysics-austria.com

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