

# BIOPHYSICS NEWS

BIOPHYSICS AUSTRIA

## Message of the BA President

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



In this issue	Page
<b>PRESIDENT'S MESSAGE</b> BY BERNHARD FLUCHER	1
<b>A SHORT REPORT ON THE PHD PROGRAM IN INNSBRUCK</b> CAVX PHD PROGRAM, INNSBRUCK BY PETRONEL TULUC	2
<b>REPORT OPEN BOARD MEETING</b> BY RAINER SCHINDL	3
<b>SAVE THE DATE!</b> BIOPHYSICS AUSTRIA CONFERENCE 2026	
<b>BIOPHYSICS AUSTRIA BURSARIES FOR EBSA2025</b>	4
<b>PROTON REACTIONS BPS CONFERENCE 2025</b>	
<b>UPCOMING EVENTS</b>	
<b>CURRENT JOB OFFERS</b>	5

### Dear members and friends of the Austrian Biophysical Society:

With this newsletter, we want to stay in touch with our community and inform you about recent and upcoming events and activities that might interest you. Since the last edition in fall 2024, we conducted an “open board meeting” to which all interested members were invited to participate. We are happy about the input and commitment of those who accepted this invitation. Nevertheless, there is definitely room for more member participation at the next such occasion ;). You will find a summary of the board meeting in this issue.

Those of us who attended the recent Biophysical Society Meeting in Los Angeles experienced first-hand some of the consequences of the new policies introduced by the US government. Many of our colleagues are dealing with reduced research budgets, and not a few are worried about their jobs. We are deeply concerned about these developments, which demonstrate — in a very unexpected way — how vulnerable science can be. For decades, we looked at the American science system with admiration and even some envy. Now, it is time to stand by our US

colleagues, maintaining our scientific exchange and cooperation.

At the same time, let us be aware of, and speak out against, any similar developments in our own countries. What began during the pandemic with a rejection of scientific truth and the promotion of “alternative truths” may quickly turn into tangible assaults on science, universities, and the independent press and media. At Biophysics Austria, we want to promote the understanding and appreciation of science in the public — both the scientific endeavor itself and its results. Today, this is more important than ever. Let us become active — for example, during the annual Biophysics Week, in schools, at science slams, etc. Our society will be happy to support such initiatives by you, our members.

The BA President,  
Bernhard Flucher

# A short report on the PhD program in Innsbruck

## Ca<sub>v</sub>X PhD Program, Innsbruck

By Petronel Tuluc

Calcium channel research in Innsbruck has a long tradition. Originating in the mid 1980s at the *Institute of Biochemical Pharmacology*, it thrived and proliferated to several departments of both Innsbruck Universities. Over the years, the calcium channel researchers in Innsbruck initiated and participated in several FWF-funded Special Research Projects, European Marie Curie Training Networks and PhD programs, culminating in the FWF-funded DocFunds program, *Calcium channels in excitable cells*. The first Ca<sub>v</sub>X program, led by Gerald Obermair at the *Institute of Physiology, Medical University Innsbruck* (now at the *KLU, Krems*), was launched in 2018. The current Ca<sub>v</sub>X program covers thirteen research groups and is headed by Petronel Tuluc (*Institute of Pharmacy, University of Innsbruck* <https://cavx.at/>). Today, calcium channel research in Innsbruck covers a broad range of topics and model systems, mirroring the diverse biological functions of these ion channels.

In the human body, voltage-gated calcium channels come into play wherever an electrical signal is translated into a cell function. This particularly involves all forms of regulated secretion (like the release of hormones and neurotransmitters), contractions (like the heartbeat, skeletal muscle contractions, breathing, bowel movements, blood pressure regulation and much more), and activity-induced gene regulation. Moreover, voltage-gated calcium channels contribute to action potential- and rhythm generation in the heart and brain. Accordingly, the Ca<sub>v</sub>X community unites researchers studying its functions in skeletal and heart muscle, the nervous system,

sensory organs and hormone glands. The specific questions addressed by the Innsbruck channel researchers range from structure-function studies at the atomic level, to organ and systems functions, to human diseases caused by aberrant calcium channels. This concentration of calcium channel research in one location and the breadth of covered research topics is unique worldwide.

Because ion channels traditionally are studied with electrophysiological techniques, biophysics is central to their investigation. However, the biophysical approaches applied in Innsbruck go well beyond classical electrophysiology and calcium recording, including high-resolution imaging, molecular genetics, protein structure analysis and computer modeling. Consequently, Ca<sub>v</sub>X members are regular participants of the *Biophysical Society* meeting in the USA, as well as of the biennial *Austrian Biophysical Society* meeting. The prominent international standing of the calcium channel research in Innsbruck is highlighted by the *European Calcium Channel Conference* (ECCC), which is organized by members of the team and regularly brings together the world leaders in the field in Alpbach, Tyrol. If you are interested in learning more about calcium channel research, in participating in the upcoming ECCC (May 26-30, 2025; <https://calciumchannel.eu/>), or in PhD positions offered by the Ca<sub>v</sub>X program, visit our website or contact one of the participating scientists directly (<https://cavx.at/>).

Petronel Tuluc



Figure: The Ca<sub>v</sub>X community at its recent retreat in the Tyrolean mountains.

## Open Board Meeting of Biophysics Austria

By Rainer Schindl

As highlighted in Bernhard Flucher's report, reaching the public with scientific knowledge is more important than ever, especially in these turbulent political times. This topic was also central to our recent open board meeting, where we discussed strategies to increase the visibility of Biophysics Austria. In particular, we considered expanding our presence on social media, following the example of the highly active German Physical Society.

For the time being, we have decided to maintain our newsletter format as a key channel to connect with biophysicists across Austria and Europe. However, we are committed to exploring additional avenues to strengthen our outreach and community engagement.

We plan to repeat the open board meeting format later this year, or by next year at the latest, with a special focus on encouraging student participation. I believe these meetings offer a valuable opportunity to build stronger bonds within the Biophysics Austria community and to shape new directions for our society.



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## Save the date! Biophysics Austria Conference 2026

Dear colleagues,

We are happy to preannounce our next year's meeting of the Austrian Biophysical Society from 6.-8.7.2025 in Salzburg, St. Virgil Bildungshaus. At this meeting, Austrian biophysicists and scientists of many fields applying biophysical approaches gather once every other year to update each other on the progress of their research, to exchange ideas and strengthen existing or build new collaborations. The 2025 meeting will feature a broad range of topics, including ion channels and transporters, protein structure, protein-protein and protein-lipid interactions, single molecule and cutting-edge microscopy techniques. Additional oral presentations will be selected from submitted abstracts.

Two poster sessions, poster flash presentations, student travel awards and poster prizes, plus ample opportunities to interact with established scientists, also make this meeting an ideal setting for PhD students and postdocs who wish to present their projects and to inform themselves about career opportunities in the Austrian biophysics field.

The conference will be organized by Sandro Keller (University of Graz, [sandro.keller@uni-graz.at](mailto:sandro.keller@uni-graz.at)) on behalf of Biophysics Austria. The detailed program will be published in due course—stay tuned for updates! Interested sponsors and exhibitors are kindly asked to contact Renate Androsch-Holzer at [ramcon@biophysics-austria.com](mailto:ramcon@biophysics-austria.com) for further information.



## Important deadlines and information

### Biophysics Austria bursaries for EBSA2025

The 15th Congress of the Biophysical Societies will take place in Rome from **June 30 to July 4**. With 30 engaging symposia—including informative sessions like *Teaching Biophysics* and the *MOSBRI session*—this event promises to be a key meeting point for the latest advancements in biophysics. Over 1,000 participants are expected to attend.

While the regular abstract submission and EBSA bursary application deadlines have passed, there's still **good news!** Late abstracts for poster presentations will be accepted until May 31 and will be available online throughout the congress.

For those who didn't receive the EBSA bursary, Biophysics Austria is offering additional support!

They're providing **5-10 travel grants of 310 EUR** each for young scientists (PhD students and Postdocs who have completed their PhD within the past 3 years). **The deadline for these applications is May 1, 2025.**

More information:

<https://www.biophysics-austria.com/?p=910>

And for those who've already submitted their abstracts and registered, with the EBSA bursary in hand, here's a valuable last-minute tip for your trip to Rome:

<https://noe.orf.at/stories/3291381/> □

## Proton Reactions BPS Conference 2025

The conference will be held from August 3-7, 2025, in Estes Park, Colorado, USA, and promises to be an unforgettable experience. With a dynamic program and outstanding invited speakers, participants are in for a treat.

Two distinguished Plenary speakers include Robert Stroud (USA), who will present on "*The Conundrum of How and When Protons Drive Transport?*" and Leonid Sazanov (Austria), who will explore "*The Mechanism of Proton Translocation by Respiratory Complex I.*"

There are presentation slots available for abstracts chosen for the program, so don't miss out on the chance to contribute your research!

The schedule is designed to allow ample time for engaging discussions, while also offering the opportunity for exciting hiking adventures in the stunning surroundings of Estes Park.

More information:

<https://www.biophysics.org/meetings-events/bps-conferences/2025-proton-reactions-bps-conference>

## BIOPHYSICS AUSTRIA

### Upcoming Events

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

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

Biophysics Austria Conference  
July 6–8, 2026  
St. Virgil Education Center, Salzburg

### 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](http://www.biophysics-austria.com)

### Imprint

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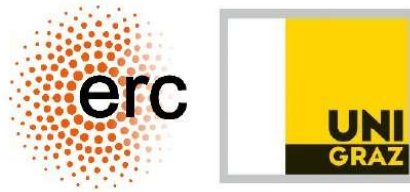
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# Current Job Offers



## PhD Position in Single-Molecule Biophysics (ERC-Funded)

The **Molecular Biophysics Group** at the **University of Graz**, led by Dr. **Georg Krainer**, is seeking a **highly motivated PhD candidate** to join the **ERC-funded project** “SignAlloMod: Decoding the Molecular Logic of G Protein-Coupled Receptor (GPCR) Signaling”.

Interested?

Visit [www.biophysics-austria.com](http://www.biophysics-austria.com)



## PhD Position in Single-Molecule Microfluidics for Cancer Diagnostics (UFO-Funded)

The **Molecular Biophysics Group** at the **University of Graz**, led by Dr. **Georg Krainer**, is seeking a **highly motivated PhD candidate** to join the **UFO Award project** “HER2 Profiling in Solid Tumors” in collaboration with **Prof. Sandro Keller’s group**.

Interested?

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