

GPCR FORUM— towards community- driven science powered by young investigators

Role of GPCRs in cell signal transduction

G protein-coupled receptors (GPCRs) are one of the largest protein families in mammals, with more than 800 members in humans. They are located in the cell membrane and transduce signals from outside the cell to the inside. A signal from the outside can be a hormone, a drug or even a photon, recognised by the GPCR and translated to impact signalling pathways within the cell. This communication is crucial in many physiological processes, for example, sight, fetal and cell development, taste and smell, or mood. Conversely, deregulation of this mediated communication can lead to diverse diseases, including cancer, psychiatric disorders and many more. GPCRs are the target for many drugs impacting the mediated signal transduction, thereby treating diseases or, in the case of recreational drugs, impacting physiological responses in other ways. Understanding these proteins and how they transduce signals to enable cellular communication is crucial for both physiology and disease. Addressing GPCR complexity requires a well-structured research network and infrastructure.

ECI powered community

GPCR FORUM is a research hub with early-career researchers at its core, supporting data generation, dissemination, sharing and facilitating knowledge transfer, catalysing their training and contributing to community-driven science.

Early-career investigators (ECI), mainly PhD students or postdoctoral researchers, need platforms through which to promote their science and establish new connections with other researcher fellows and senior scientists. Conferences and meetings are the mainstream for this purpose. However, time and financial limits are serious hurdles—especially for the ECIs—that hinder regular attendance at multiple meetings each year. Even with the mentioned resources in hand, the experience of pandemics made it very clear how fragile face-to-face interactions can be and thus pushed different communities to move toward virtual/hybrid meetings.

Need for an open GPCR research network

GPCR's ubiquity in human physiology and molecular biology has pushed an increasing number of research groups towards investigating GPCR structure and function. GPCR research leverages a diversity of scientific techniques. The GPCR research community needs a free and open forum to disseminate results and discuss techniques. An open research network allows scientists to freely share results and methods to foster collaboration. Additionally, open research networks provide a venue for the dissemination of soft skills from experienced community members, such as career development and mentoring.

Open research networks are created and run by their respective research communities. The open research network model forges community bonds across research sub-disciplines and techniques. These 'cross pollination' events of methods can result in the application of new techniques to different research challenges. With a community-driven organisation, the research network can adapt to the needs of the community quickly.

GPCR FORUM objectives

Foster collaboration and communication

Facilitate meaningful connections and collaborations among GPCR researchers from diverse backgrounds by organising interactive activities such as Zoominars and online meetings. This platform aims to bridge gaps between different research areas and promote a cohesive and integrated scientific community.

Support early-career investigators (ECIs)

Offer valuable opportunities for early-career investigators to present their research, receive constructive feedback and network with established scientists in the field. By doing so, the platform helps advance their careers, foster professional growth and contribute significantly to the ongoing progress in GPCR research.

Promote active community engagement

Ensure the GPCR research community remains vibrant and engaged by providing a dynamic platform for sharing the latest knowledge, ideas and research developments. This objective includes regular member-driven activities to keep the community informed and inspired.

Change research culture

Facilitate more data sharing and less individual work, particularly for ECIs in the future.

The GPCR FORUM community

The GPCR FORUM community is a diverse group consisting of 551 established and young researchers from around the world. The community is predominantly European, with the highest participation from Germany, which accounts for 28.60% of the members. Following Germany, the United Kingdom has the second highest participation, followed by France, Spain and Italy. Other notable contributions come from Turkey, Sweden, Switzerland, Denmark and the Netherlands. Smaller yet significant contributions are also seen from Belgium, Israel, Poland and the Czech Republic. In addition to its strong European representation, the GPCR FORUM also aims to connect researchers outside Europe. This includes Israel, India, South Korea, the United States, Japan and China.

Gender distribution within the community reveals a higher representation of women, who make up 54.37% of the members, compared to 45.63% of men. This indicates a significant female presence and contribution within the forum.

Overall, the GPCR FORUM is a vibrant and inclusive community, characterised by its diverse international participation, career levels (from ECIs to established researchers) and balanced gender representation, fostering collaboration and knowledge exchange among researchers worldwide.

Regular GPCR FORUM activities

Regular online meetings/conferences promote knowledge transfer, keeping members updated in the fast-moving world of science and data generation.

ECIs of the GPCR FORUM organise bi-monthly online meetings called **GPCR ECI Zoominars**, originally initiated by the former ERNEST Cost action. Typically, there are two ECIs hosted in each session (<https://www.gpcrforum.org/events/gpcr-zoominars>).

The meetings are not limited to interactions with ECIs. These monthly events host senior and established scientists from academia and industry in special sessions called Café sessions, which aim to help participants expand their networks and advance their scientific careers.

Fill in our [survey](#) to present your research or to suggest topics, speakers or Café session leaders!

Follow the Zoominar on [X](#) and [LinkedIn](#) or join the [GPCR FORUM mailing list](#) for updates.

Kick-off conference

The 1st GPCR FORUM conference aims to make GPCR research globally visible.

Taking place from 25–27 November 2024, this free event will feature six sessions with engaging discussions, informative presentations, networking opportunities and virtual poster sessions.

Session 1

ONCORNET2.0 - ONCOgenic GPCR Network of Excellence and Training

Chair: [Martine Smit](#) (Department of Chemistry and Pharmaceutical Sciences, Vrije Universiteit Amsterdam, the Netherlands)

Session 2

ADHESION GPCR Consortium (AGC)

Chairs: [Nicole Scholz](#) (University of Leipzig, Rudolf Schönheimer Institute of Biochemistry, Germany)
[Nathan Zaidman](#) (University of New Mexico, Biochemistry and Molecular Biology, USA)

Session 3

COMPARE - The Centre of Membrane Proteins and Receptors

Chair: [Davide Calebiro](#) (University of Birmingham, Institute of Metabolism and Systems Research, Department of Metabolism and Systems Science, UK)

Session 4

The Canadian GPCR community

Chair: [Stephane Laporte](#) (McGill, Faculty of Medicine and Health Sciences, Department of Medicine, Division of Endocrinology and Metabolism, Montreal, Canada)

Session 5

i-GPCRnet - International Research Network (IRN) on GPCRs

Chair: [Ralf Jockers](#) (Senior Research Director at INSERM, Director of the IRN 'i-GPCRnet' of the CNRS, Deputy Director of Metabolism-Endocrinology Department, France)

Session 6

The Chinese GPCR Community

Chair: [Jiafei Mao](#) (Institute of Chemistry, Chinese Academy of Sciences CAS, China)

To register, visit:

 <https://www.gpcrforum.org/events/gpcrforumconference2024>



PROJECT NAME

GPCR Forum

PROJECT SUMMARY

GPCR Forum is a platform dedicated to the GPCR research community with the aim to keep the community active as well as foster communication and collaboration—initiated by our previous GLISTEN and ERNEST COST Actions.

Investigators from diverse backgrounds will be connected via this free-membership forum. Please join us and contribute to member-run activities like Zoominars, online meetings and help build new projects.

PROJECT TEAM

GPCR FORUM Team

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Technical Support

[Luise Wagner](#) (Smooth Events)

PROJECT CONTACTS

 www.gpcrforum.org/home

 www.gpcrforum.org/the-team