Postdoc Research Group Shigemoto

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IST Austria is a growing international institute for conducting frontier research in mathematics, computer science, and the life and physical sciences. We recruit passionate professionals from all over the world and from all fields who support our goals of excellence in research and science management. Located on a beautiful campus on the outskirts of Vienna, we offer numerous opportunities for personal growth in a stable working environment. Get an insight!

**Shigemoto group** works on localization and function of receptors and ion channels in major synaptic connections in the brain and examine how plasticity of these synapses contributes to the memory formation. The group is also developing chemical tagging technologies to visualize or manipulate target molecules using interdisciplinary approaches. Your responsibility would be to develop new chemical probe-mediated technologies for:

- Visualizing single channel subunit compositions in situ, and asking how the subunit composition changes in physiological learning process and contributes to memory formation
- Manipulation of ion channel activities by tagging with functional nanocrystals
- Non-invasive manipulation of vesicular release in specific pathways by infrared light and nanocrystal-tagged optogenetic tools
- Proximity labeling of receptors and ion channels to screen interacting molecules

Tasks are cross-disciplinary involving organic chemistry, light and electron microscopy, electrophysiology, optogenetics, biochemistry and behavioral experiments using mice.

**Your profile**

- Shigemoto group is looking for a highly motivated postdoc with a strong interest in developing interdisciplinary approaches for elucidating mechanisms for synaptic plasticity and physiological learning
- Experience in one of the disciplines described above is preferable
- PhD in biology, chemistry, neuroscience, medicine or others
- Excellent command of English (working language)
- short listed candidates will apply for NOMIS fellowship with potential secondary supervisors, María Ibáñez (internal), Akio Ojida (external), or other external scientists. For more information, please visit our website: [https://ist.ac.at/en/education/postdocs/nomis-fellowship/](https://ist.ac.at/en/education/postdocs/nomis-fellowship/)

**Application Deadline: May 25th, 2021**

**Application documents:** cover letter, CV, publication list and the contact details of at least two referees. To submit your application please email: **ryuichi.shigemoto@ist.ac.at**

* This position comes with possible overpayment depending on education, qualification and work experience. IST Austria processes your personal data in accordance with the law. For more information, please refer to [www.ist.ac.at/data-protection](https://www.ist.ac.at/data-protection).