



Ion Channels in Synaptic and Neural Circuit Physiology

--Virtual Course --

June 7 - 18, 2021

Application & Materials Deadline: April 16

Instructors

Christine Grienberger, Brandeis University

Jan Gründemann, University of Basel, Switzerland

Angelika Lampert, RWTH Aachen University, Germany

Annalisa Scimemi, SUNY Albany

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The [2021 Ion Channels course](#) will again be offered virtually, over two weeks this summer (June 7-11 and June 14-18). The course curriculum will include opportunities for virtual hands-on training.

All applicants must have:

1) access to a microscope and electrophysiology rig in your own lab; and
2) a statement from your labhead that you will have prioritized access to this equipment for the duration of the course (1 pm - 5 pm Eastern time Monday - Friday).

Areas of particular interest include

- **Voltage- and ligand-gated ion channels at central and peripheral synapses**
- **Synaptic integration and plasticity**
- **Neural circuit function *in vitro* and *in vivo***
- **Optogenetic strategies for circuit manipulation**

Hands-on Experience in

- Using patch-clamp electrophysiology to examine single channel activity in cultured cells
- Ion channel biophysics in acutely dissociated neurons and synaptic integration
- Plasticity and circuit dynamics in *in vitro* slice and *in vivo* preparations

[Please click this link to go to the Ion Channels in Synaptic and Neural Circuit Physiology course website for further info.](https://meetings.cshl.edu/courses.aspx?course=C-ION&year=21)

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