

## DANDRITE Topical Seminars

### *Mini-symposium on membrane transporters*

**Tuesday 23<sup>rd</sup> February 2021**

**From 11.00 – 12.00, online via Zoom**

For Zoom link, please request it to [karenb@mbg.au.dk](mailto:karenb@mbg.au.dk)



**From 11:00 – 11:30 Seminar by Jette Sandholm Kastrup**

Department of Drug Design and Pharmacology  
University of Copenhagen, Denmark

#### **Positive allosteric modulation of AMPA and kainate receptors**

Ionotropic glutamate receptors (iGluRs) mediate fast excitatory neurotransmission in the central nervous system. The iGluRs are involved in learning and memory, but also in diseases such as Alzheimer's disease and epilepsy. The iGluRs have been divided into four subfamilies: AMPA, kainate, NMDA and delta receptors. We study positive allosteric modulation of AMPA and kainate receptors by small molecule ligands. Whereas X-ray structures of AMPA receptors with positive allosteric modulators have been known since 2002, we only recently published structures with a kainate receptor. I will discuss our work on a specific class of positive allosteric modulators named BPAMs.



**From 11:30 – 12:00 Seminar by Gisela Brändén**

Department of Chemistry & Molecular Biology  
University of Gothenburg, Sweden

#### **XFEL- and synchrotron-based serial crystallography studies of the membrane-bound proton pump cytochrome c oxidase**

Serial crystallography is a novel method within macromolecular crystallography that allows determination of protein structures at room temperature and enables time-resolved studies of protein dynamics. We use this method to study the membrane-bound respiratory protein cytochrome c oxidase, with the hope of being able to describe the mechanistic details of proton pumping. I will present data from experiments at the Japanese XFEL SACLA and MAX IV Laboratories in Lund.