PHOTOPHARMACOLOGY:
SWITCHING DRUGS AND PROTEINS
"ON" AND "OFF" *IN VITRO* AND *IN VIVO*

Wednesday 4rd of October 9.30-10.30.
Merete Barker Auditorium (Lakeside auditoriums).
Symposium. Open to all. Coffee will be served.

9.30-10.10:
Honorary Skou Professor Dirk Trauner (Dept. of Chemistry, Pennsylvania State University)
"Controlling the Fate and Function of Proteins with Proximity Photopharmacology"

Photopharmacology endeavors to control biological function with synthetic photoswitches that can be attached covalently or non-covalently to their targets - or nearby. I will discuss potential applications of photopharmacology in biology and medicine, in particular with respect to controlling signal transduction, the actin cytoskeleton, and targeted protein degradation. I will make a case that "Proximity Photopharmacology" is a particularly effective strategy.

10.10-10.30:
Associate Professor Steffen Sinning (Dept. of Forensic Medicine, AU)
"Photoswitchable tools to explore the mechanism of antidepressants"

Antidepressant drugs have existed for 70 years. Despite detailed knowledge about their molecular targets, the underlying molecular mechanism leading to recovery still remains elusive.
Photoswitchable antidepressants that can be activated on demand at specific locations is a new tool to delineate brain regions and signalling pathways required for antidepressant action. The development and characterization of such photoswitchable antidepressants is described.

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