

INSTITUTE FOR OPHTHALMIC RESEARCH
FORSCHUNGSINSTITUT FÜR AUGENHEILKUNDEOPHTHALMIC
RESEARCH
SYMPOSIUM**“Integrating the context:
models and mechanisms of surround
modulation in the retina”****Prof. Olivier Marre**

Institute de la Vision, Paris, France

At the retinal output, a common assumption is that ganglion cells of a single type extract a single stimulus feature from the visual scene to form a feature map. Yet they can also respond to very distant stimulations, and both the function and the circuits of these distant responses are unclear. Using large-scale recordings in the rodent retina combined with quantitative modeling, we have shown that they allow ganglion cells of a single type to code for several features simultaneously, providing a richer, flexible map to the brain. We have then developed novel optical tools to selectively manipulate cells in the intermediate layers of the retina and start uncovering the circuits responsible for these flexible computations.

**Thursday, 16 May 2019 – 11 am
Building 600, HNO-Klinik, Lecture Hall, Level 2
Elfriede-Aulhorn-Straße 5**

Prof. Olivier Marre did his PhD on neural coding in the visual cortex and then moved to Princeton University to study population coding the retina. Since 2013 he has been a group leader and INSERM researcher at the Vision Institute, Paris, working on neural coding in the retina, and more recently focusing on the circuits underlying retinal computations.

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