DANDRITE
Danish Research Institute of Translational Neuroscience
Nordic EMBL Partnership for Molecular Medicine

AARHUS UNIVERSITY

DANDRITE Topical Seminar

Wednesday 21 June 2017
at 11.00 – 11.45

Aarhus University, building 1171, room 347 (Aud. 6)

Karl Farrow

Assistant Professor,
KU Leuven

Seminar on "Routing visual information through the superior colliculus"

Visually guided behavior is based on the extraction of relevant features from the visual scene and the routing of this information to the correct motor centers. At the first stage of visual processing, the retina splits the visual scene into over 30 distinct features. Each feature is embodied by a different ganglion cell type that sends visual information to one or several brain targets. To determine the rules of routing we have studied two di-synaptic neuronal circuits that link the mouse retina via the superior colliculus to two mid-brain nuclei, whose optogenetic activation each leads to similar avoidance behaviors in mice. Here we have applied a trans-synaptic viral tracing strategy to specifically label the retinal ganglion cells at the beginning of each of the two pathways. By analyzing morphological properties of the labelled cells, we can identify the ganglion cell types that are part of each of the circuits..

Host: Group Leader Keisuke Yonehara, DANDRITE, Dept. of Biomedicine, Aarhus University