

VABILO

Slovensko fiziološko društvo vljudno vabi na predavanje, ki ga bo imel

prof. dr. Kenneth L. Moya,

v sredo, 17. 05. 2017 ob 10:45 uri v veliki vajalnici PAFI, Zaloška 4 v Ljubljani.

»Wiring, maintaining and rebuilding the visual system: the role of homeoprotein transcription factors.«

Predavanje bo v angleškem jeziku.

Summary:

Homeoprotein transcription factors (HPs) were initially discovered as morphogens with a central role in body patterning. More recently it was discovered that HPs can transfer between cells and regulate protein translation in addition to gene transcription in both a cell autonomous and non-cell autonomous manner.

Our studies have found that the homeoprotein Engrailed acts non-cell autonomously to guide retinal ganglion cell (RGC) axons to their correct targets at least in part by mitochondrial activation and ATP signaling via the adenosine 1 receptor. The HP Otx2 is normally expressed in photoreceptors and bipolar cells of the retina. Otx2 acts cell autonomously to maintain photoreceptors and bipolar cells. It functions non-cell autonomously to protect RGCs from excitotoxic cell death in an acute model of glaucoma and to maintain vision. Finally, exogenous Otx2 promotes RGC survival and axon regeneration after optic nerve damage and can restore vision to a limited extent.

KENNETH L. MOYA, Center for Interdisciplinary Research in Biology (CIRB) Collège de France, Paris, France, got his Ph.D. in Neuroscience in 1989 at the Massachusetts Institute of Technology, Cambridge, MA, U.S.A., advised by Larry I. Benowitz and James Stellar. From 1990 to 1994 he was a Research Fellow, Association Claude Bernard, CEA and DRIPP, SHFJ in Orsay, France. In 1994 he became Research Scientist and in 1998 a Team leader at the Centre National de la Recherche Scientifique, SHFJ, CEA, Orsay, France. In 2009 he became a Project leader (Homeoproteins and retinal axon guidance, regeneration and neuronal survival) and in 2011 Pathology section head and Scientific director of Histology Platform at the Center for Interdisciplinary Research in Biology (CIRB) Collège de France in Paris, France. He published over 40 original articles and more than 10 book chapters or review articles.

V Ljubljani, 10. 05. 2017