Institute of Molecular and Cell Biology

A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by Prof. Vinay Tergaonkar:

Date: 4 January 2018, Thursday

Time: 11:00AM – 12:00PM

Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Prof. Vladimir Korzh, Visiting Professor, International Institute of Molecular and Cell Biology, Poland

Title: The Empty-headed Guide into Hollow Brains: how to make the brain ventricular system

The brain ventricular system (BVS) consists of brain ventricles and connecting channels. It is filled with cerebrospinal fluid (CSF). The disturbance of CSF flow has been linked to neurodegenerative disease, including hydrocephalus, which manifests itself as an abnormal expansion of BVS. This relatively common developmental disorder has been observed in human and domesticated animals and linked to functional deficiency of various cells lineages facing BVS, including the choroid plexus or ependymal cells that generate CSF or ciliated cells that cilia beating generates CSF flow. To understand the underlying causes of hydrocephalus, several animal models were developed, including rodents (mice, rat, and hamster) and zebrafish. I'll discuss common elements of morphologically different BVS of zebrafish as a typical representative of teleosts and other vertebrates and illustrate useful features of the zebrafish model for studies of BVS. Along this line, recent analyses of the two novel zebrafish mutants affecting different subunits of the potassium voltage-gated channels allows to emphasize an important functional convergence of the evolutionarily conserved elements of protein transport essential for BVS development, which were revealed by the zebrafish and mouse studies.

Biography:

After graduating from Kiev University in 1976, Vladimir Korzh got his PhD in developmental biology in 1981 at the Koltsov Institute of Developmental Biology in Moscow. He worked as a researcher in the same institute until 1990 when he moved as a postdoc to the University of Tromsø, Norway and started using zebrafish as a model of vertebrate neurodevelopment. Later, he moved to the University of Umeä, Sweden and in 1995 started a laboratory of fish developmental biology at the ex-Institute of Molecular Agrobiology in Singapore before joining the IMCB in 2002. In 2016, he joined the International Institute of Molecular and Cell Biology in Warsaw, Poland as a visiting professor and senior staff scientist.

ALL ARE WELCOME *(No registration required)*