

# SPECIAL SPEAKER SEMINAR SERIES 2018

Australian Regenerative Medicine Institute

## Deciphering complex traits in growth control of eye and heart using inbred Medaka strains

**Professor Joachim Wittbrodt**

Centre for Organismal Studies

### Bio

Jochen Wittbrodt is founder and director of the Centre for Organismal Studies (COS) Heidelberg in the Department of Developmental Biology and Physiology at the University of Heidelberg, Germany. Prior to his role in COS he held a group leader position at EMBL in Heidelberg. The mission of the COS institute is broad exploration of organismic biology from genes to behavior with research devoted to understanding basic organismal development, including the molecular basis of cell biology, developmental biology and evolution in plant and animal model systems. Jochen is a world leading scientist in developmental genetics and imaging technologies and has won several prestigious awards and published numerous papers in top journals such as *Nature* and *Science*. For example, he is co-senior author of the paper that mapped entire embryonic development at cell level using light sheet microscopy and that was ranked 1st among all papers published in *Science* 2008. Jochen's lab has a long standing interest in vertebrate eye development, growth and using fish models (Zebrafish and Medaka). The lab has pioneered genetic and advanced imaging approaches to decipher the basic mechanisms that govern the balance of eye cell proliferation, differentiation and growth control *in vivo*. He has recently together with international collaborators created the largest, most diverse and phenotypically well described library of inbred vertebrate strains (Medaka fish) to study complex traits involved in growth and size control of organs and individuals. The lab has recently defined cells and factors controlling eye size combining imaging and genetics with mathematical modelling.



**DATE:** Tuesday, 25<sup>th</sup> Sept.

**TIME:** 1:30pm – 2:30pm

**VENUE:** Seminar Room  
Level 3  
15 Innovation Walk  
Monash University  
Clayton Campus