QBiC CDB JOINT SEMINAR

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CONICET - Partner Institute of the Max Planck Society

Date & Location

Thursday, September 28, 2017, 16:00 - 17:00
CDB Building A7F Seminar room
(2-2-3 Minatojima-minamimachi, Chuo-ku, Kobe)
There will be a TV broadcast at RIKEN Osaka A1F lounge

Title

Collective oscillations in the zebrafish segmentation clock

Abstract

Cells generate, process and share information to orchestrate the patterning of tissues and organs during embryonic development. An interesting example is vertebrate segmentation, where the axis going from head to tail is subdivided into regular segments that will later form the vertebrae and other tissues. This segmentation is rhythmic, and it is thought that a gene regulatory network is responsible for the rhythm at the cellular level. At a local level, intercellular signaling communicates cells and synchronizes them into a collective oscillation. This collective oscillation produces gene expression waves that traverse the unsegmented tissue and give rise to segments. In this talk I will discuss some findings about how this collective rhythm is organized, from an interdisciplinary perspective that brings together theory and experiment.

Host

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