

Munich Center for Neurosciences – Brain & Mind

MCN Lecture – November 03, 2014

Prof. Dr. Luis Puelles
(University of Murcia, Spain)

“Fundamentals and implications of the prosomeric model”

The prosomeric model offers a synthetic perspective on the topologically invariant fundamental structural organization (Bauplan) of vertebrate brains. It takes into account various descriptive and experimental developmental data in order to define the brain axial dimension, various transverse and longitudinal Grundbestandteile, and radial versus tangential modes of growth. These entities define "natural" elastic coordinates for invariant conceptual positioning of brain parts, useful for evolutionary comparative analysis, irrespective of variation. Abundant comparative genoarchitectonic data currently support the model. This differs from earlier purely anatomic models in providing a rich causal background (theory of secondary organizers), and in recent years has often suggested the need to correct and variously amplify earlier arbitrary neuroanatomic ideas not based on molecularly defined "natural boundaries". The prosomeric model therefore supports a new causal neuromorphology and also illuminates the field of functional neural systems, due to its clearcut relationship with axonal navigation and synaptogenetic patterns.

Date: **Monday, November 03, 2014**

Time: **18:15**

Location: **LMU Biocenter, B01.019, Großhaderner Str. 2, 82152 Martinsried**

The Board Members,

M. Dieterich S. Glasauer B. Grothe S. Hartmann M. Hübener H. Müller H. Potschka