

Modern Drug Development – a Multi-scale Approach

November 18, 2016

SuperC Ford-Saal, Templergraben 57, Aachen

Integrating information obtained at many different levels and scales for improving human and animal health and for securing plant growth and yield is a major challenge in medicine and biology of today and will become even more important in the future. Particularly, the molecular function of individual effector molecules, their interaction with inhibitors and modulators, as well as their function in protein networks, cells, organs, organisms and crosstalk between organisms need to be understood and exploited. Only an interdisciplinary approach can enable us to understand such multi-scale systems.

With this second symposium of the „MScale“ - Multi-scale Bioactive Systems-Initiative of RWTH Aachen University, we will focus on molecular approaches to identify and validate drug targets. The development of small molecules and biologicals and their clinical application is an intriguing multi-scale and interdisciplinary challenge.

We cordially invite you to keynotes given by renowned colleagues from academia and industry, presentations from colleagues of RWTH Aachen University and fruitful discussions.

Carsten Bolm, Chair of Organic Chemistry II

Uwe Conrath, Department of Plant Physiology - Plant Biochemistry and Molecular Biology

Bernhard Lüscher, Chair of Biochemistry and Molecular Biology

Andreas Schuppert, Aachen Institute for Advanced Study in Computational Engineering Science (AICES)

Martin Zenke, Chair of Cell Biology

Draft Programme

10:00	Registration - Coffee - Opening
10:30-18:00	<p>Key Lectures</p> <p>Philip K. Maini, Wolfson Centre for Mathematical Biology, University of Oxford/UK <i>Modelling cell invasion in biology and medicine</i></p> <p>Christian Reinhardt, Clinical and Molecular Oncology, University Hospital Cologne <i>Systematic profiling of synergistic drug interactions in cancer</i></p> <p>Hinrich Abken, Center for Molecular Medicine, University of Cologne <i>Of CARs and TRUCKs: adoptive T-cell therapy to treat cancer</i></p> <p>Alex Klausener, formerly Bayer CropScience: <i>Ryanidin receptor agonists - a powerful new class of insecticides</i></p> <p>Tim Brümmendorf, Medical Clinic IV, University Hospital RWTH Aachen <i>Chronic myeloid leukemia (CML): pathfinder and model disease for molecular targeted therapy</i></p> <p>Michael Threadgill, Department of Pharmacy and Pharmacology, University of Bath/UK <i>Inhibition of PARP-1, from simple radiosensitisation to potential multi-disease applications in the clinic</i></p> <p>Joachim Mittendorf, Bayer Pharma Aktiengesellschaft, Wuppertal <i>Discovery of the novel sGC stimulators Riociguat and Vericiguat</i></p> <p>Short Lectures from research groups of RWTH Aachen University</p> <p>Poster Lunch</p>
18:00	Get-together