

Title of module

Lecture Series in the Focal Point Programme
"Molecular Medicine"
VZ: 185 880

Credit points

5

Available in semester(s)

2

Hours per week

2

Compact course

Lecturer(s)

J. Epplen, R. Erdmann, S. Hahn, K. Jaquet, W. Linke, M. Peters, M. Raulf, J. Rassow, H.-P. Rihs, A. Rinne, K. Überla, K. Winklhofer

Teaching methods

Lecture, 2 hours per week

Evaluation of learning progress

Not applicable

Mode of examination

2-hour end-of-term written exam (5 credit points)

Learning objectives

The goal of this lecture series is to provide insights into the main research subjects of the docents of the Focal Point Programme. At the same time, the lectures should support students in their decision-making for the choice of their host laboratories during the Advanced Practicals and Master thesis.

Soft skills

Not applicable

Contents of module

In the focus of this lecture series are the following four Subspecialties within this Focal Point Programme: Regulation and Pharmacology of the Cardiovascular System, Molecular Oncology, Immunology, and Somatic Gene Therapy. Each Subspecialty will usually present with 3 lectures. State-of-the-art research questions within these groups will be discussed.

Topics (provisional):

Molecular aspects of cardiac arrhythmias

Mechanical dysregulation in the cytoskeleton of the failing heart

Mechanisms of cardiac hypertrophy

PIP₂ - a universal regulator of ion channels in the plasma membrane

Molecular biological studies in occupational health

Micro RNAs in pancreas tumor development

The state of HIV vaccine development

Molecular engines for the transport of proteins

Human genetics

Mitochondria as targets of bacterial and viral virulence factors

Immunological aspects in occupational health

Animal studies in immunology research