

Title of module

Modular Advanced Practical and Seminar
in the Focal Point Programme
"Molecular Medicine", VZ: 185780, 183781
"Molecular Cardiology"

Credit points

4

Available in semester(s)

1

Hours per week

5.25

Compact course



Lecturer(s)

W. Linke and teaching assistants

Teaching methods

Two-week advanced laboratory course with an
intergrated seminar, one of four lab courses to be
completed in the first term

**Evaluation of learning
progress**

Active participation in the laboratory tasks and seminar,
feedback during the experiment

Mode of examination

Assessment of active and successful participation in the
practical (50%) and a written project report (50%)

Learning objectives

To learn cell and molecular biological as well as
biochemical and physiological experimental techniques
in modern Physiology; to learn how to understand own
experimental results in the context of the research field;
to promote understanding of a translational research
approach: basic research-clinical research.

Soft skills

Writing a protocol for a scientific study (with feedback);
Use of specific scientific vocabulary;
Learn principles of how to assure data integrity

Contents of module

Molecular, biochemical or cell biological experimental techniques to study the function of myocardial and muscle cells.

One of four methods learned:

A) Cell culture and immunofluorescence;

B) Mechanical analysis of cardiac cells;

C) Protein gel electrophoresis and Western Blotting;

D) PCR and agarose gel electrophoresis

All in the context of the group's research focus.