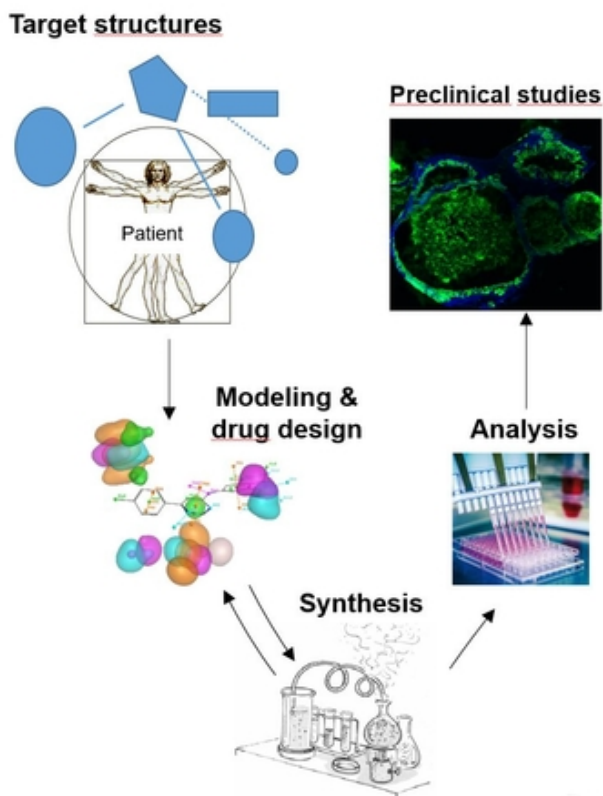


## Biomedicine

For a better understanding of the complexity of biological systems, it is future-oriented to closely combine experimental methods in biomedical research with systems theoretical approaches from the engineering sciences. The overriding goal of the cooperation in the CDS between scientists from different disciplines is to gain new insights into complex pathophysiological and biomedical-relevant regulatory processes in the course of disease.

In particular, chronic inflammatory diseases and cancer are of importance here, as they are by far the most frequent causes of death in Saxony-Anhalt and thus represent major challenges for health research. Within the framework of innovative preclinical inflammation research in the DFG-funded Research Training Group 2408 "Maladaptive processes across physiological barriers in chronic diseases" also innovative methods in biomolecular simulation are being used which enable the characterisation of therapeutic target structures and the identification of active substances. In this way, a direct transfer of knowledge from basic research into clinical and industrial applications is made possible, which holds great potential for future opportunities in precision medicine.



Example for a thematic demonstration „Biomedical systems“  
Target structures-Drug design-Preclinical studies

Research

Energy Conversion  
Chemical Production  
Biomedicine