To test new treatment strategies for joint inflammation, models must unite immunological, inflammatory, acute / chronic and / or destructive aspects of human disease according to the specific principles of each disease. At Fraunhofer IZI, a specific selection of animal models are available for exploring and studying joint inflammation and cartilage destruction. One may choose immunization using different antigens, a communication of arthritogenic antibodies or the transfer of destructive fibroblasts.

**Unique Feature**

The diversity of arthritis models available at Fraunhofer IZI is unique and allows for an extensive spectrum of testing.

**Client Advantage**

Flexible development of a custom model according to expected effects and type of mechanism being tested.

**Methods**

- collagen induced arthritis, antibody induced arthritis, fibroblast induced arthritis
- imaging diagnostics in the mouse
- serological multiplex analyses
- flow cytometric cell analysis
- gene expression analysis
- metabolic screening
- histology, immunohistochemistry
Selected Applications

- testing new therapeutic processes
- demonstrate efficacy of medicaments for arthritis therapy
- illustration of the effect mechanism of novel therapeutic principles
- clarification of dosage and application type
- examination of tolerance and side effects
- examination of innovative combination therapies

Reference Projects

- fibroblast induced joint destruction in the mouse
- stem cell therapy of joint destruction
- examination of granulocyte directed therapies
- examination of antibodies in arthritis therapy