Chronic joint destruction is the main challenge for researchers of new treatment strategies in rheumatology. To meet this challenge, models are required that mirror, in particular, the destructive aspects of human disease. At Fraunhofer IZI, two models in immune deficient SCID mice are available specially to explore questions centering around cartilage destruction. To this end, destructive fibroblasts of human or murine origin are used.

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

- fibroblast induced arthritis
- imaging diagnostics in the mouse
- serological multiplex analyses
- 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 antibodies in arthritis therapy