Current Research

Preclinical
- SysRetPro (BMBF)
  Dr. D. Rathbun
- Carbo Chip (Hector Foundation)
  Dr. W. Haq

Clinical
Function Testing and Imaging
- Accommodation (Kerstan Foundation)
  Dr. T. Strasser
- Electrophysiology of Vision
  PD Dr. K. Stingl, Dr. T. Strasser, M. Kempf
- Color Vision psychophysics
  Dr. A. Werner
- Adaptive Optics

Clinical Research
- RD-Cure (Gene Therapy)
  Dr. D. Zobor, Dr. L Kuehlewein
- QLT (Retinoid Substitution)
- Autosomal dominant Retinitis pigmentosa
  Prof. E. Zrenner, Dr. L. Kuehlewein
- CURETINA
  PD Dr. K. Stingl
- RUSH2A (Usher Syndrome and Retinitis pigmentosa with USH2A mutations)
  PD Dr. K. Stingl
- PROGSTAR / RETROSTAR (Morus Stargardt)
  Prof. Zrenner, Dr. F. Nasser, Dr. G. Hahn
- Retina Implant
  Prof. E. Zrenner, PD Dr. K. Stingl, Dr. L. Kuehlewein
- SFB Robust Vision (Project 14)
  Prof. E. Zrenner, PD Dr. K. Stingl

Collaborations
- European Reference Network ERN-EYE
- SFB Robust Vision
- RD-CURE Consortium
- Foundation Fighting Blindness (FFB): PROG-STAR / RETROSTAR, RUSH2A
- STZ eyetrial

Institute for Ophthalmic Research
Clinic for Hereditary Retinal Degeneration
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How to find us:

Zrenner Lab
Pathophysiology of Vision and
Clinic for Hereditary Retinal Degeneration

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The professorship of Pathophysiology of Vision is dedicated to understand hereditary retinal disease mechanisms and subsequently to develop new treatments.

The clinic for hereditary retinal degeneration, founded in 1989, examines and counsels every year more than 600 patients with hereditary diseases of the retina (e.g. retinitis pigmentosa).

Our aim is to differentiate the various clinical forms of hereditary retinal diseases by specific functional tests and imaging, as well as developing and testing of novel therapeutic approaches.

The development of novel functional testing (electrophysiology of vision, psychophysics and low vision tests) in combination with novel imaging techniques (e.g. adaptive optics) helps to improve the sensitivity and specificity of differential diagnoses and phenotype/genotype correlation in these hundreds of retinal diseases.

Basic research on electrostimulation of retinal neurons by multielectrode arrays (MEA) and calcium imaging is performed, as well as psychophysics of color vision for extended functional testing.

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Eberhart Zrenner
- Head
- Professor, Dr. med. Dr.h.c. mult.
- CIN Senior Professor of Ophthalmology

Katarina Stingl
- PD Dr. med.
- Deputy Head

Group Members

Lab 1: Dr. D. Rathbun, Dr. Z. Hosseinzadeh
Lab 2: Dr. W. Haq
Lab 3: Dr. A. Werner
Lab 4: PD Dr. A. Kurtenbach, Dr. T. Strasser
Clinic: Prof. Dr. E. Zrenner, PD Dr. K. Stingl (managing senior physician), Dr. L. Kuehlewein (FEBÖ), F. Nasser, MD Oph, Dr. D. Zobor (FEBÖ), S. Kramer, U. Fuchs, G. Haerer and M. Kempf

Research to See

The Institute for Ophthalmic Research

Seeing is an essential part of human life. As a leading centre for vision research we conduct rigorous research in order to break new ground in understanding the principles of vision and the mechanisms of blinding diseases. We are confident that this research will enable us to rationally develop effective treatments that ultimately retain or restore vision.

Within the Center for Ophthalmology at the University of Tübingen Medical Centre, we and our colleagues at the University Eye Hospital jointly strive for scientific excellence, for speed in translating the advancements into patient’s benefit, and for training and mentoring the next generation of leaders in our field.

As leaders and partners in multi-national collaborations, we work for continuous strengthening our ties to fellow international scientists in the public and private sector and to foundations, industry and patient organizations.

As an integral part of Tübingen’s biomedical and neuroscience campus, we offer a scientific environment that favors creativity for generating ground-breaking ideas, their transfer into reality and their translation into diagnostics and therapy to help those that suffer from vision loss.

This work is supported by numerous research grants of the DFG, EU, BMBF, Hector- and Kerstan Foundation.