What is MIntEye?

“Multimodal integration of ophthalmological diagnostic technologies” (MIntEye) is a research project at the Institute of Biomedical Engineering and Informatics which started in January 2007. It is scheduled for 5 years and granted by the German Ministry for Research and Education (BMBF).

The objective of “MIntEye” is to link and integrate the so far independently applied diagnostic technologies in ophthalmology including microcirculation diagnostics, electro physiology diagnostics, and metabolic diagnostics. Milestones on the way to this main objective are the creation of a generic technology basis for the integration of the single technologies, a standardization of the single technologies as well as the demonstration of integration possibilities in specific application examples. A unification of these technologies into a multidiagnostic tool for the ophthalmologic research will yield integrative knowledge not existing so far, reaching from the emergence and the early progress of eye diseases to their particular characteristics.

Contact
Prof. Dr.-Ing. habil. Jens Haueisen and Dr. rer. nat. Uwe Graichen
Technische Universität Ilmenau
Institut für Biomedizinische Technik und Informatik
Gustav-Kirchhoff-Str. 2
98693 Ilmenau
Mail: jens.haueisen@tu-ilmenau.de and uwe.graichen@tu-ilmenau.de
Tel: ++49 3677 69-2860
Web: www.tu-ilmenau.de/bmti
Detailed Program
Humboldt-Bau, Room 211/212

Monday, September 10th 2007

09:00 – 09:05 Welcome speech Jens Haueisen

Diagnostic Methods for the Investigation of the Retinal Microcirculation – Part I
Chairman: Leopold Schmetterer (Clinical Pharmacology, University of Vienna)
Speakers: Martin Hammer (Experimental Ophthalmology, FSU Jena)
Rainer A. Leitgeb (Ecole Polytechnique Federale Lausanne)
Bernd-Ulrich Seifert (Imedos GmbH Jena)

09:05 – 09:55 Key Note Lecture: Methods for Micro Vascular Diagnosis of the Retina Leopold Schmetterer
09:55 – 10:20 Reproducibility of Optical Oximetry in Retinal Vessels Martin Hammer
10:20 – 10:40 Coffee break
10:40 – 11:05 Quantitative Assessment of Retinal Blood Flow in 3D and Retinal Vasomotion in Response to Light Flicker Rainer A. Leitgeb
11:05 – 11:30 Static Vessel Analysis and Reproducibility Bernd-Ulrich Seifert
11:30 – 13:00 Lunch break

Diagnostic Methods for the Investigation of the Retinal Microcirculation – Part II
Chairman: Charles E. Riva (Università di Bologna)
Speakers: Walthard Vilser (Imedos GmbH Jena)
Dietmar Link (TU Ilmenau)

13:00 – 13:30 Key note lecture: Physiology and Modelling of Flicker-Induced Hemodynamical Response of the Retinal Microcirculation Charles E. Riva
13:30 – 14:15 Dynamic Vessel Analysis with the DVA Walthard Vilser
14:15 – 14:30 Universal Retina Camera for Investigations of the Microcirculation Dietmar Link
14:30 – 14:50 Coffee break

Clinical Results of Retinal Vessel Analysis – Part I
Chairman: M. Kamran Ikram (Erasmus MC, Rotterdam)
Speakers: Edgar Nagel (Ophthalmologist, Rudolstadt)
Jens Dawczynski (Clinical Centre, FSU Jena)

14:50 – 15:40 Key note lecture: Associations between Retinal Vessel Diameters and Systemic Disorders M. Kamran Ikram
15:40 – 16:05 Variance of Flicker-Induced Retinal Vessel Dilatation and Discussion of Possible Trouble Sources Edgar Nagel
16:05 – 16:30 Flicker-induced Retinal Vessel Reactions in Diabetic Patients Jens Dawczynski
16:30 – 19:00 Reception Ceremony with Dixiland Music and Thuringian Sausage
From 19:30 Dinner in restaurant of hotel “Lindenhof” for all referents

Tuesday, September 11th 2007

Clinical Results of Retinal Vessel Analysis – Part II
Chairman: Ines Lanzl (Eye Klinic, TU München)
Speakers: Axel Preßler (Sports Medicine, TU München)
Konstantin Kotliar (Eye Klinic, TU München)
Helen Hanso (Neurological University Clinic, TU Dresden)
Christoph Wirtz (Eye Klinic, TU München)

09:00 – 09:50 Key note lecture: Age Dependence of Retinal Vessel Vasomotions Ines Lanzl
09:50 – 10:15 Dynamic Retinal Vessel Analysis in Patients with Obesity Axel Preßler
10:15 – 10:40 Coffee break
10:40 – 11:05 Microstructural Changes of Longitudinal Retinal Arterial Profiles in Systemic Hypertension Konstantin Kotliar
11:05 – 11:30 Retinal Microcirculation in the Context of Systemic Cardiovascular Regulation Helen Hanso
11:30 – 11:55 Which Retinal Vessels are Best Suitable for Dynamic Vessel Analysis? Christoph Wirtz
11:55 – 13:00 Lunch break
13:00 – 15:00 Guided tour through the Institute of Biomedical Engineering including the Ophthalmology Laboratory