Faculty

Prof. Dr. Joachim Hornegger,
Prof. Dr. Björn Eskofier
Pattern Recognition Lab,
Friedrich-Alexander-Universität
Erlangen-Nürnberg

Prof. Dr. Jürgen Winkler,
PD Dr. Jochen Klucken
Department of Molecular Neurology,
Universitätsklinikum Erlangen

Dr. Shyamal Patel, Prof. Dr. Paolo Bonato
Motion Analysis Lab,
Harvard Medical School, Boston

Prof. Dr. Jens Volkmann
Department of Neurology, Julius-Maximilians-
Universität Würzburg

Prof. Dr. Cornel Sieber, PD Dr. Ellen Freiberger
Institute for Biomedicine of Aging,
Klinikum Nürnberg

Prof. Dr. Johannes Kornhuber,
Prof. Dr. Norbert Thürauf, Gerald Suttner
Department of Psychiatry and Psychotherapy,
Universitätsklinikum Erlangen

Prof. Dr. Karl Gaßmann, Samuel Schülein
Geriatrics Centre Erlangen,
Waldkrankenhaus St. Marien

Prof. Dr. Klaus Pfeifer,
Dr. Alexander Tallner, Simon Steib
Institute of Sport Science,
Friedrich-Alexander-Universität
Erlangen-Nürnberg

Prof. Dr. Tim C. Lüth, Dr. Lorenzo D'Angelo
Institute of Micro Technology and Medical
Device Technology (MIMED),
Technische Universität München

Jens Barth, Chantal Peter
Astrum IT, Erlangen

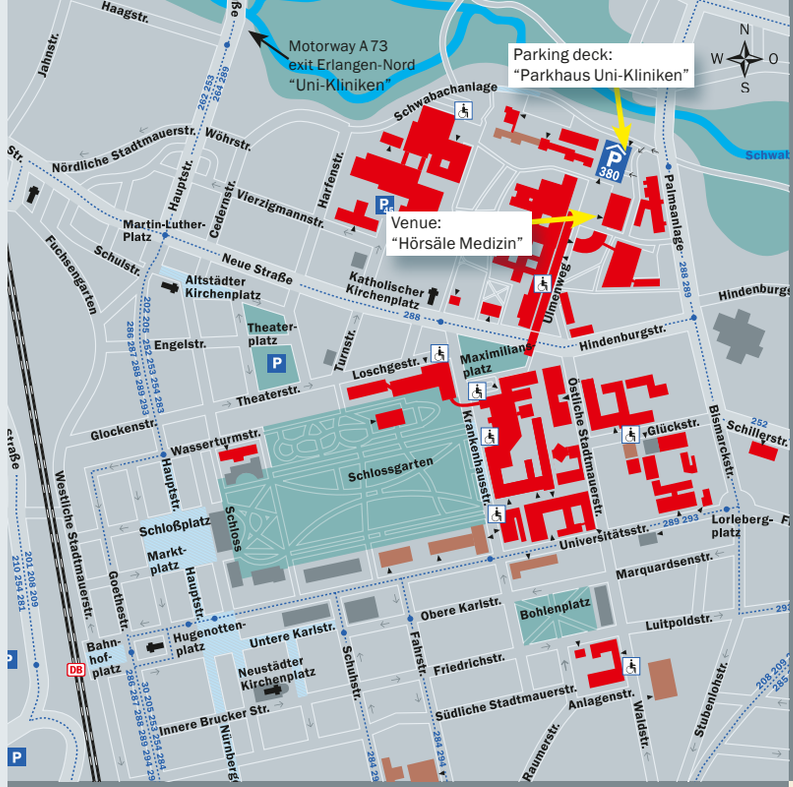
PD Dr. Ralph Linker
Department of Neurology,
Universitätsklinikum Erlangen

Guests of honor

Prof. Dr. Dr. h. c. Joachim Heinzl
President, Bavarian Research Foundation,
München

Prof. Dr. Dr. h. c. Jürgen Schüttler
Dean, Faculty of Medicine, Erlangen

Prof. Dr. Joachim Hornegger
Vice President FAU, Erlangen



Faculty of Medicine, Department of Molecular Neurology
Head: Prof. Dr. Jürgen Winkler

Faculty of Engineering, Pattern Recognition Lab
Head: Prof. Dr. Joachim Hornegger

Scientific Organisation
PD Dr. Jochen Klucken
Department of Molecular Neurology, Universitätsklinikum Erlangen
Schwabachanlage 6, D-91054 Erlangen
E-mail: jochen.klucken@uk-erlangen.de

Prof. Dr. Björn Eskofier
Digital Sports Group, Pattern Recognition Lab,
Friedrich-Alexander-Universität Erlangen-Nürnberg
Haberstr. 2, D-91058 Erlangen
E-mail: eskofier@cs.fau.de

Participation at the Symposium is free of charge.
Please register by email:
jasmine.burczyk@uk-erlangen.de; or by fax: +49 9131 85-34672.

Editor: Uni-Klinikum Erlangen/Kommunikation, D-91012 Erlangen

AMASE

3rd Automated Mobility Analysis Symposium Erlangen

Friday, 7th December 2012, 13.00 – 19.00

Universitätsklinikum Erlangen, Hörsäle Medizin,
Ulmenweg 18, 91054 Erlangen, Germany

Department of Molecular Neurology,
Faculty of Engineering, Pattern Recognition Lab

Certified with 6 points

FRIEDRICH-ALEXANDER UNIVERSITÄT ERLANGEN-NÜRNBERG
TECHNISCHE FAKULTÄT

Universitätsklinikum Erlangen

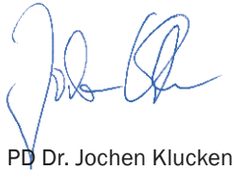
Dear colleagues,

mobility defines quality of life in health and disease. Sensor-based information on mobility is increasingly introduced into healthy living. It also supports diagnostic workup and therapeutic decisions in a variety of disorders. In an ageing society impairment of motor function is of increasing medical and economical relevance. In particular neurological, skeletomuscular and cardiovascular disorders reduce the ability to move independently and limit the autonomy of patients. Even though the disease causing mechanisms are specific for each disorder, mobility in general is limited which makes it an important surrogate marker for disease severity and progress, but more importantly for therapeutic decisions and quality of life.

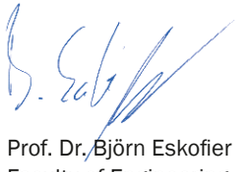
Modern sensor-based motion detection systems are developed that (I) assess motor function in numerous disorder throughout the course of the disease, (II) support therapeutic decision and (III) provide objective measurement for therapeutic efficacy in clinical studies.

The 3rd **Symposium** on **Automated Mobility Analysis** in **Erlangen** will focus on the current knowledge and applications of motion detection system in the clinic.

We kindly invite you to participate in our symposium at Universitätsklinikum Erlangen.



PD Dr. Jochen Klucken
Faculty of Medicine



Prof. Dr. Björn Eskofier
Faculty of Engineering

Program

13.00	**Introduction and Welcome** Prof. Dr. Dr. h. c. Joachim Heinzl, Prof. Dr. Dr. h. c. Jürgen Schüttler, Prof. Dr. Joachim Hornegger, Prof. Dr. Jürgen Winkler
13.45	**Keynote Lecture** **Automated Motion Analysis in Parkinson Syndrome** Dr. Shyamal Patel, Prof. Dr. Paolo Bonato
14.15	**Assessing outcomes of deep brain stimulation in movement disorders** Prof. Dr. Jens Volkmann
14.35	**Gait Analysis in Parkinson Syndrome** PD Dr. Jochen Klucken
14.55	**Exercise and Frailty** PD Dr. Ellen Freiberger, Prof. Dr. Cornel Sieber
15.10	**Movement and Depression – the Effects of Sports on Neural Connectivity** Prof. Dr. Norbert Thürauf, Prof. Dr. Johannes Kornhuber, Gerald Suttner
15.25	**Coffee break**
16.00	**Assessing the risk of falling in geriatric patients** Samuel Schülein, Prof. Dr. Karl Gaßmann
16.15	**Chronic joint instability, fatigue and sensorimotor control** Simon Steib, Prof. Dr. Klaus Pfeifer
16.30	**Wearable systems for mobile movement analysis** Dr. Lorenzo D'Angelo, Prof. Dr. Tim C. Lüth
16.50	**Pattern recognition concepts for sensor-based movement analysis** Prof. Dr. Björn Eskofier
17.10	**Coffee break**

Program

17.30	**Scopes of automated motion analysis supporting telemedical care** Chantal Peter
17.45	**Sensor-based motion analysis: today and tomorrow** Dipl.-Ing. Jens Barth
18.00	**Technology-based exercise interventions in motor system disorders** Dr. Alexander Tallner, Simon Steib, Prof. Dr. Klaus Pfeifer
18.15	**Mobility in Multiple Sclerosis: diagnostic tool and therapeutic target** PD Dr. Ralph Linker
18.30	**Concluding remarks** PD Dr. Jochen Klucken, Prof. Dr. Björn Eskofier

Participation of the symposium is certified with six CME points of the "Bayerische Landesärztekammer".

Bayerische Forschungsstiftung

interdisziplinäres Zentrum für Klinische Forschung

The symposium is supported by

Astrum IT GmbH

ASTRUM IT

Licher MT GmbH

LICHER MT MEDICAL THERAPY GmbH

TEVA Pharma GmbH

TEVA Pharma GmbH

UCB Pharma GmbH

ucb