EIT Health
MoveIT Symposium

"Sensor-based Gait&Fall Assessment in Parkinson's disease"

Date: 9.00-15.00 - September 7th 2018

Venue: University Hospital Erlangen, Rudolf-Wöhrl-Hörsaal,
Östliche Stadtmauerstraße 11, 91054 Erlangen, Germany

Registration: please register by confirming your attendance (MN-MoveIT@uk-erlangen.de)
more info: www.molekulare-neurologie.uk-erlangen.de

Topic:

The Symposium will present the current status digital healthcare strategies for Parkinson's disease patients. The relevant aspects of instrumented outcome analysis will be covered for gait&falls, IT-based connected health concepts, and improved patient care using digital health technologies. The most recent advances in integrated care concepts as well as novel developments of healthcare technologies will be addressed. The goal is to update healthcare professionals, patient representatives, as well as researchers from industry and academia on digital health aspects of sensor-based gait&fall assessment strategies for clinical studies and care.

Speakers:

Bas Bloem Radboud University, Medical Centre, Nijmegen, Netherlands	**ParkinsonNet - next generation HealthCare**
Rejko Krüger University of Luxembourg, Luxembourg Centre for Systems Biomedicine (LCSB), and Centre Hospitalier de Luxembourg (CHL), Luxembourg	**Deep Phenotyping for Stratification in Parkinson's Disease – the NCER-PD Cohort**
Brian Caulfield University College Dublin, School of Public Health, Phys & Sports Sciences, Dublin, Ireland	**Mobile Platforms for enhanced Implementation of Rehabilitation Exercise**
Jochen Klucken University Hospital Erlangen, Molecular Neurology, Erlangen, Germany	**Gait & Falls Assessment Battery in PD – objective outcomes for research and care**
Björn Eskofier Friedrich-Alexander University Erlangen-Nuremberg (FAU), Machine Learning and Data Analytics Lab (MaD Lab), Erlangen, Germany	**Artificial Intelligence transfers wearables to HealthCare Applications**
Ralph Steidl CEO Portabiles HealthCare GmbH, Nuremberg, Germany	**Mobile GaitLab – Clinical gait analysis and its scopes**
Christian Weigand Fraunhofer IIS, Erlangen, Germany	**Patient Management Platforms connect People and Technology**
Heribert Baldus Philips Research, Eindhoven, Netherlands	**Automatic Fall Detection, Mobility Monitoring, Vital@Home for patient self-management in daily life**

EIT-Health „MoveIT" Partners:

ParkinsonNet

PHILIPS

PARKINSON
National Centre of Excellence in Research

Portabiles HealthCare Technologies

Fraunhofer IIS

ITTM
Information Technology for Translational Medicine

EIT Health "MoveIT" – Consortium

Past-Present-Future of Gait&Fall Assessment Strategies in Parkinson's disease

MoveIT-Symposium: September 7th 2018 – Erlangen, Germany

Project Summary

In 2018 a consortium of medical researchers, engineers and industry partners have started the EIT-Health funded project "MoveIT" which aims at establishing a comprehensive, sensor-based Gait&Fall assessment battery for both, clinical care concepts and clinical research trials in Parkinson's Disease (PD). Two sensor systems (mobile GaitLab, Portabiles HCT GmbH, Germany; and Vital@Home Fall detector, Philips, Netherlands) are monitoring gait and fall related impairment in PD patients. The generated gait patterns and fall-related medical information are connected by a digital patient management (DPM) infrastructure (ITTM, Luxembourg; Fraunhofer IIS, Germany). Sensor-derived "real-life" target parameters will be integrated into the clinical care workflows (termed as "Digital Health Pathways – DHP") derived from patients' needs and treatment requirements by the clinical partners (Prof. Bas Bloem, ParkinsonNet, Netherlands; Prof. Rejko Krüger, NICER-PD, Luxembourg, Prof. Jochen Klucken, Frankonian Parkinson Net, Germany).

The combination of **innovative healthcare technologies** (Gait&Fall sensors) with **digital patient management concepts** (DPM) and **patient-centered care pathways** (DHPs) generates a comprehensive healthcare solution for healthcare provider, clinical academic and industrial researcher. It also provides new real-life endpoints for both, care and trial applications. As a next step, the Gait&Fall assessment battery may be used in clinical trials (instrumented, objective, home-monitoring based outcome). On the long run, we aim to develop a "registry like" concept, where sensor-based parameters are combined with state-of-treatment information from every PD patient. This innovative "registry *plus*" concept combines and thereby annotates objective sensor-based outcome information with treatment related information (e.g. before, after therapy change; screening/prediction/prevention of Gait&Falls; progression evaluation). Thus, objective Gait&Fall related parameters from patients in everyday care could be used for stratified treatment evaluation.

Goals of the Symposium

During the Workshop the partners of the consortium will present their current concepts and developments in the project. In order to discuss the options of implementing and testing the Gait&Fall assessment battery in clinical trials and clinical care we invite target stakeholders of PD management: (i) **patients**; (ii) **physicians**, **physiotherapist**, and **specialized nurses**; (iii) **academic researchers**; (iv) **industry researchers** including **pharma**, **MedTech companies**, CROs (Clinical Research Organization), **healthcare insurers,** and **political representatives** (health, economics). The goal is to identify potential collaborations, projects and funding options towards value-based medicine.

Participation

Please let us know, if you want to participate in the workshop.
(MN-MoveIT@uk-erlangen.de)
EIT-Health MoveIT - www.eithealth.eu/moveit and/or www.molekulare-neurologie.uk-erlangen.de

Current academic and non-academic consortium partners

Clinical Care in Parkinson's disease

Prof. Dr. Jochen Klucken; Prof. Dr. Jürgen Winkler
University Hospital Erlangen, Germany

Prof. Dr. Bas Bloem
Radboud University Nijmegen, Netherlands

Prof. Dr. Rejko Krüger
Université du Luxembourg

Medical Technology

Prof. Dr. Björn Eskofier
Friedrich-Alexander University Erlangen-Nürnberg, Germany

C. Weigand
Fraunhofer Institute for Integrated Circuits, Erlangen, Germany

Healthcare Technology Industry

ITTM , Luxembourg

Philips Research, Eindhofen, Netherlands

Portabiles HCT GmbH, Nürnberg, Germany