Working Title:
Real World Walking Speed - Definition, Measurement, Validation and Regulatory Acceptance

Venue:
Klinikum Rechts der Isar, TUM Munich / Germany

Topics:
Sensor technology and assessment criteria
Endpoints based on mobile accelerometer
Validation and steps towards regulatory acceptance
Wearables & clinical trials
Walking in chronic diseases & rehabilitation
Walking and cognition/dual tasking
Walking/running/exercise in space, Bed rest studies
Myokines
Walking and falling
Shoes and risk of injuries
Maternal/fetal motion
Acceleromics
Devices and gold standards
Big data and open access
Regulatory aspects for novel outcomes

Information & talks about the previous Winter Symposium: peerj.com/collections/6-humanmotionproject

Contact:
Dr. Martin Daumer
SLCMSR e.V. - The Human Motion Institute
Mail: daumer@slcmsr.org

Hohenlindener Str. 1
81677 Munich, Germany
Tel: +49 89 206026920
Fax: +49 89 206026951
**Novel Endpoints Generated by Mobile Accelerometry for Use in Phase III Clinical Trials**

**Venue**
TranslaTUM – Central Institute for Translational Cancer Research of the TUM
GF, Building 522
Johannes B. Ortner Forum (room 22.0.1)
Ismaninger Str. 22
81675 Munich

Register till March 5th, 2018
Scan QR-Code or go to: https://goo.gl/forms/CQlQvBfVV9wQN3qz1

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**5TH WINTER SYMPOSIUM OF “THE HUMAN MOTION PROJECT”**

**Opportunities arising in the context of IMI Call**
*“Linking digital assessment of mobility to clinical endpoints to support regulatory acceptance and clinical practice”*

Stage 1 submission deadline: 28 February 2018 (17:00 Brussels time)

**FINAL PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30</td>
<td>Registration &amp; Coffee</td>
</tr>
<tr>
<td>09:00</td>
<td>Mobile accelerometry in clinical trials: towards regulatory decision making</td>
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<tr>
<td></td>
<td>Martin Daumer, SLC-The Human Motion Institute, Trium Analysis Online, TU Munich, GER</td>
</tr>
<tr>
<td>09:15</td>
<td>Defining standards in accelerometry implementation and endpoints for clinical trials</td>
</tr>
<tr>
<td></td>
<td>Bill Byrom, VP Product Strategy and Innovation, CRF Health, UK</td>
</tr>
<tr>
<td>09:30</td>
<td>Beyond daily steps and energy expenditure: the next “step” in physical activity parameters</td>
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<td>Bernd Grimm, Fellow of International Orthopaedic Research, Past-President EORS, GER</td>
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<tr>
<td>09:45</td>
<td>Discussion</td>
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<tr>
<td>10:00</td>
<td>Coffee break &amp; Poster</td>
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<tr>
<td>10:15</td>
<td>Application of activity monitoring for objective functional assessment in patients with orthopaedic problems</td>
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<tr>
<td></td>
<td>Dieter Rosenbaum, Director Biomechanics Research, Clinical Research and Services, Otto Bock Healthcare GmbH, GER</td>
</tr>
<tr>
<td>10:30</td>
<td>Treatment of Fatigue in MS (TREFAMS-ACE study): results and detailed analyses of objectively measured physical behavior</td>
</tr>
<tr>
<td></td>
<td>Johannes (Hans) B.J. Bussmann, Associate Professor Dept. of Rehabilitation Medicine, Erasmus MC University Medical Center Rotterdam</td>
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<tr>
<td></td>
<td>Vice &amp; Past President of the International Society for the Measurement of Physical Behaviour (ISMTB), NL</td>
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<tr>
<td>10:45</td>
<td>Stepwave - a new algorithm for step detection and speed estimation</td>
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<tr>
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<td>Holger Höfling, Novartis Institutes for BioMedical Research, Basel, CH</td>
</tr>
<tr>
<td>11:00</td>
<td>Discussion</td>
</tr>
<tr>
<td>11:15</td>
<td>The impact of the EU General Data Protection Regulation (GDPR) on medical devices</td>
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<tr>
<td></td>
<td>Anna E. Schmaus-Klughammer, Member of the Scientific Staff, Technische Hochschule Deggendorf (THD), GER</td>
</tr>
<tr>
<td>11:30</td>
<td>Lunch, Poster, Exhibition &amp; Networking</td>
</tr>
<tr>
<td>13:00</td>
<td>Moving preclinics</td>
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<tr>
<td></td>
<td>Oliver Hayden, Heinz Nixdorf Chair of Biomedical Electronics, Department of Electrical and Computer Engineering, TU Munich, GER</td>
</tr>
<tr>
<td>13:15</td>
<td>Innovation by looking into extreme ends: learning from astronaut training and pediatric rehabilitation for clinical trial methodology</td>
</tr>
<tr>
<td></td>
<td>Jörn Rittweger, Head of the Division of Muscle and Bone Metabolism, German Aerospace Center, GER</td>
</tr>
<tr>
<td>13:30</td>
<td>Longitudinal data in ppMS patients including mobile accelerometry: insights from the OPRIMS study</td>
</tr>
<tr>
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<td>Jan-Patrick Stellmann, Clinical Scientist , Institute of Neuroimmunology and Multiple Sclerosis (INMIMS), University Medical Center Hamburg-Eppendorf (UKE), GER</td>
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<tr>
<td>13:45</td>
<td>Discussion</td>
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<tr>
<td>14:00</td>
<td>In vivo load measurements with instrumented implants</td>
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<td></td>
<td>Philipp Damm, Julius Wolff Institute for Biomechanics and Musculoskeletal Regeneration, Charité Universitätsmedizin Berlin, GER</td>
</tr>
<tr>
<td>14:15</td>
<td>Homeostasis disruption in carcinogenesis enclose inter-disciplinary link to research &amp; Human Motion Project</td>
</tr>
<tr>
<td></td>
<td>Björn Brücher, Professor of Surgery, Director, Center of Gastrointestinal Oncology of the Cancer Center Cottbus, GER; INCORE &amp; Theodor-Billroth-Academy Germany-USA</td>
</tr>
<tr>
<td>14:30</td>
<td>Event based analysis of real world walking in clinical populations</td>
</tr>
<tr>
<td></td>
<td>Malcom H. Granat, Professor in Health and Rehabilitation Sciences/School of Health Sciences, University of Salford President of the International Society for the Measurement of Physical Behaviour (ISMTB), NL</td>
</tr>
<tr>
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<td>Discussion</td>
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<tr>
<td>15:00</td>
<td>Coffee break</td>
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<tr>
<td>15:15</td>
<td>The effect of immobilisation and training on vascular function and growth: an example of a human integrative physiology study</td>
</tr>
<tr>
<td></td>
<td>Ylva Hellsten, Professor of Integrative Physiology, Department of Nutrition, Exercise and Sport, University of Copenhagen, DK</td>
</tr>
<tr>
<td>15:30</td>
<td>Which endpoints should we measure in clinical trials? And how should we measure them?</td>
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<tr>
<td></td>
<td>Tom MacDonald, Director of MEMO Research, Professor &amp; Consultant Physician, University of Dundee, Scotland</td>
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<tr>
<td>15:45</td>
<td>Design case study in wearable technology</td>
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<tr>
<td></td>
<td>Kuno Frey, Faculty of Design and Art, Free University of Bozen, IT</td>
</tr>
<tr>
<td>16:00</td>
<td>Summary, Funding opportunities</td>
</tr>
</tbody>
</table>

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**BLÄK medical education credits**

6
POSTERS

» Activity tracking with smart devices: precision in real world measurements and the quest for the gold standard
Ferdinand Heinrich*, Thomas Höller*, Christoph Horlebein*, Carla Pregel Hoderlein*
1Department of Electrical and Computer Engineering, TU Munich
» Study on classification of fetal risk from cardiotocography data using machine learning techniques
Ubirajara M. Pires*, Bruna V. Koppa*, Andrei Mendonça*, Christian Widrich*
1Department of Electrical and Computer Engineering, TU Munich
» Functional enhancement of activity monitoring by building custom data visualization
Munteh Ahmad*, Lubov Semienova*
1Department of Electrical and Computer Engineering, TU Munich
» Recovery of habitual gait speed after 60 days of bed rest in young healthy male subjects
Marcelo Grassi1,2, Martin Daumer1,3, Jörg Rittweger4
1SLC-The Human Motion Institute, *Trium Analysis Online,
2German Aerospace Center
» Towards large-scale learning for intensity classification of daily activities: A step towards standardization of accelerometry
V. Farrahi1, M. Niemelä1, P. Tjrini1, M. Kangas2,3, R. Korpelainen1,2, J. Jamsi1,2
1Research Unit of Medical Imaging, Physics and Technology (MIP), University of Oulu, Oulu, Finland; 2Medical Research Center, Oulu University Hospital and University of Oulu, Finland; 3Center for Life Course Health Research, University of Oulu, Oulu, Finland
» Pervasive physical activity monitoring from wearable devices
Joana Silva1
1Fraunhofer Portugal Research Center for Assistive Information and Communication Solutions
» Precision and patient acceptance of a belt-worn wearable (actibelt) in patients with osteoporosis and/or after trauma surgery
M. Daumer*, J. Perrenz*, A. Köppler, H. Höfling, A. Müller*, S. Harry1, M. Schieker1, M. Grassi1,2, B. Greese1, T. Nutridinov1, G. Aigner1, C. Lederer1, W. Böcker1
1SLC- The Human Motion Institute, *Trium Analysis Online GmbH – Munich, 2Medical Research Center, Oulu University Hospital and University of Oulu, Finlan; 3Center for Life Course Health Research, University of Oulu, Oulu, Finland
» Pervasive physical activity monitoring from wearable devices
Joana Silva*, Inês Sousa*
1Fraunhofer Portugal Research Center for Assistive Information and Communication Solutions

REGISTRATION

Registration fee
Industry
Public Research Institution
PHD students
Students
Students presenting poster
Interested patients
Press
Speakers
400€
250€
100€
50€
free
free
free
free
Scan QR-Code or go to:
https://goo.gl/forms/CQlQvBFv9wQN3qz1
Last minute registration: plus 20%
All fees include 19% VAT
Fee includes drinks & lunch

Payment of Fees
All fees for registration should be paid in Euro (€) in advance to Sylvia Lawry Centre e.V. – The Human Motion Institute, stating the participant’s name and address. Bank charges are the responsibility of the payer and should be paid in addition to the registration fees. Payment can be effected by bank transfer to:
Account holder/beneficiary: Sylvia Lawry Centre for Multiple Sclerosis Research e.V.
Financial institution: HynoVereinsbank Munich
IBAN-Code: DE70 7002 0270 00 36 198 214
SWIFT/BIC: HYVEDEMMXXX

Confirmation
Upon receipt of the correct registration fee, each participant will receive a confirmation of registration. Please bring this confirmation to the registration desk as proof of your registration.

Cancellation Policy
Refund of registration fees will be as follows:
- No refund on cancellations after March 5th, 2018

REGISTRATION CLOSING DATE
MONDAY MARCH 5TH, 2018

GENERAL INFORMATION

Site Map

Academic Partners

Press & Dissemination

Organizing Committee
Martin Daumer, SLC-The Human Motion Institute, Trium, TU Munich
Bill Byrom, VP Product Strategy and Innovation, CRF Health, UK
Bernd Grimm, Fellow of International Orthopaedic Research, Past-President EORS
Oliver Hayden, Heinz-Nixdorf-Chair of Biomedical Electronics Department of Electrical and Computer Engineering TranslaTUM, Campus Klinikum rechts der Isar, TU Munich

WLAN access
Please follow the instruction of the LRZ
https://www.lrz.de/services/netz/wlan_en/bayernwlan_en/
Is Walking Speed a Vital Sign or a Sign of Vitality?

Venue
Klinikum rechts der Isar Technische Universität München
Ismaninger Str. 22 - 81675 Munich
Auditorium B
Register till February 28th, 2017
Scan QR-Code or go to:
https://goo.gl/forms/EikRUH0a31s8oodf2
Website
http://www.thehumanmotioninstitute.org/node/208
Link to information & talks about the previous Symposium
https://peerj.com/collections/6-humanmotionproject/

4TH WINTER SYMPOSIUM OF “THE HUMAN MOTION PROJECT”

**FINAL PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>08:00</td>
<td>Registration &amp; Coffee</td>
</tr>
</tbody>
</table>
| 09:00 | Introduction - walking in Tourette's traces  
Martin Daumer, SLC, Human Motion Institute, Trium Analysis Online, TUM, Munich |
| 09:20 | Mobility and prognosis in geriatric trauma  
Wolfgang Böcker, LMU, Klinik für Allgemeine, Unfall und Wiederherstellungschirurgie, Munich |
| 09:40 | What limits Human Performance?  
Physiological factors  
Yvina Hellsten, University of Copenhagen |
| 10:00 | Discussion |
| 10:15 | Coffee break & Poster |
| 11:00 | Is gait speed ready for use as outcome in clinical trials?  
Stephanie Studenski, National Institute on Aging, Baltimore |
| 11:30 | How to train your muscles in space - results from the Sarcoball study  
Jörn Wittwege, German Aerospace Center, DLR Cologne |
| 11:50 | What are the psychological constraints of Human Performance?  
Maurizio Bertollo, Department of Medicine and Aging Sciences, University of Chieti |
| 12:10 | Discussion - overview of investigators & student projects |
| 12:30 | Lunch, Poster & Exhibition |
| 13:30 | Precision medicine vs. lifestyle: a second opinion  
Michael Joyner, Mayo Clinic, Rochester, Minnesota |
| 14:00 | „Locomotion speed in the context of dynamic walking stability - implications for in- and off-laboratory technologies“  
Roman Schniepp, German Center for Vertigo and Balance Disorders, LMU, Munich |
| 14:20 | Investigating gait patterns using functional data analysis  
Sona Breven, Almond Stöcker, Department of Statistics, LMU, Munich |
| 14:40 | Team presentation |
| 15:10 | Round table discussion: towards regulatory acceptance |
| 15:40 | Summary, Funding opportunities |

**Posters**

- Walking speed in the Berlin Aging Study (BASE-II)  
  Walking speed in real life: some results from the Base 2 study  
  Kisselev J, Demuth I, Steinhausen-Thiesse E, Neuhaus A,  
  Nuritdinow T, Daumer M  
  1 Charité - Universitätsmedizin Berlin  
  2 SLCMSR e.V. - The Human Motion Institute  
  3 Trium Analysis Online
- Validation of the Actibelt® speed measurement in patients with dizziness and vertigo  
  Schniepp R, Rampmaier V, Nuritdinow T, Daumer M  
  1 German Center for Vertigo and Balance Disorders, Department of Neurology, Ludwig-Maximilians-University of Munich, Germany  
  2 SLCMSR e.V. - The Human Motion Institute  
  3 Trium Analysis Online
- Gait pattern and daily activity in patients with transfemoral amputation  
  Mütig J, Brauner T, Kögl I, Varady PA, Klöpfer-Krämer I, Brand A, Horstmann T, Augat P  
  Institute of Biomechanics, Gait Lab, Trauma Center Murnau
- A Field Test of Electronic Running Coaches  
  Voghläeuer J, Grass M, Daumer M  
  1 TUM Department of Electrical and Computer Engineering Technical University of Munich  
  2 SLCMSR e.V. - The Human Motion Institute  
  3 Trium Analysis Online
- Individualized Disease Management  
  Altmik R, Müller-Wolf M  
  1 TUM Department of Electrical and Computer Engineering Technical University of Munich  
  2 SIP Group AG
- Patient Guide: Be Part of the Science  
  Gaskova I, Sitte A  
  1 TUM School of Life Sciences Weihenstephan  
  2 SIP Group AG

Exhibitions from students of "Clinical Applications of Computational Medicine" & partners. Equipment for mobile medical monitoring & gait labs, shoes and healthy walking.

The organizers reserve the right for rearrangements

Interested to present a poster, give a talk or exhibit?
Please contact:
Dr. Martin Daumer  
SLCMSR e.V. - The Human Motion Institute  
E-Mail: daumer@slcmsr.org  
Website: thehumanmotioninstitute.org
The vision of the Human Motion Project is to become a successful analogue of the Human Genome Project: improving human health by an open collaborative technology platform for the mobile medical monitoring of human motion. The basis is a growing “critical path toolbox” and a biomedical data warehouse for collecting, archiving, analyzing, and disseminating human motion data including a library of algorithms.

In the “4th Winter symposium of the human motion project” we’ll pick out real life walking speed as “pars pro toto”.

“Walking is man’s best medicine” was known in ancient Greece (Hippokrates - c. 460 – c. 370 BC) and walking ability and behavior per se seems to be an important element of quality of life. How would one measure walking speed in real life and how could one derive meaningful outcomes for clinical trials? “Wearables”, i.e. mobile sensors, in particular mobile accelerometers that can measure various aspects of physical activity in the clinic and the “real world”, will probably play an important role in this field.

As a fundamental element of “human motion” we will focus during this day on various aspects and consequences of changes in walking speed for human health - with or without drug treatment. We’ll go from the clinical aspects to computational aspects (devices/sensors, data, algorithms, analysis, transmission) to the very important regulatory aspects of clinical trials and medical devices (safety, efficacy, feasibility). Experts from university hospitals, research centers, rehabilitations centers, manufacturers of medical devices, pharmaceutical companies, patients* and regulatory bodies will cover the broad spectrum of topics with a clear focus: to help the field to jointly establish a new set of meaningful clinical endpoints linked to objective measures of human motion.

Abstracts and talks are expected to be published by our partner PeerJ in the “human motion collection”, as in previous symposia and workshops.

https://peerj.com/collections/6-humanmotionproject/

Martin Daumer
Chair Organizing Committee

* we expect almost everyone in the audience to have “experience” as a patient in one way or another.
08:30 Registration & Coffee

09:00 Welcome by the Organizing Committee

09:15 Session 1 - Clinical aspects
   » The effect of walking/low intensity aerobic exercise on cardiovascular health: evidence from the literature
     Ylva Hellsten, University of Copenhagen
   » Vestibulocerebellar control of gait - what can we learn from in-laboratory and off-laboratory measurements?
     Roman Schniepp, LMU, German Center for Vertigo and Balance Disorders, Munich
   » Heart rate variability and heart rate turbulence
     Georg Schmidt, TUM MRI, Munich

10:00 Discussion

10:15 Session 2 - From clinical to computational aspects
   » Are all strains equal?
     Jörn Rittweger, Space Physiology, DLR, Cologne
   » Impact of fetal & maternal movement on fetal state
     K.T.M. Schneider, TUM MRI, Munich
   » Long-term bedrest study and Astronaut training
     Edwin Mulder, Space Physiology, DLR, Cologne
   » Computational aspects of dysregulation - a perspective from dynamic modelling
     Gerald Schuster, Rutgers University, New Jersey

11:15 Coffee Break

11:45 Session 3 - Computational aspects
   » Pattern recognition of data from movement analysis – from bench to bedside?
     Cauchy Pradhan, LMU, German Center for Vertigo and Balance Disorders, Munich
   » Attractor-based kinematic gait analysis - methodological & clinical considerations
     Christian Dettmers / Manfred Vieten, Clinics Schmieder, University Konstanz
   » Healthy and disturbed sleep: from the laboratory to actigraphy
     Thomas Penzel, Charité, Berlin

12:30 Lunch, Poster & Exhibition

14:00 Session 4 - From computational to regulatory aspects
   MoveLab - physical activity and exercise
     Michael Trenell, Newcastle University
   » Automated assessment of motor dysfunction
     Jonas Dorn, Scripps Research Institute, Novartis, Basel
   » Activity assessment in medical devices
     Raphael Schneider, Medtronic Bakken Research Center, Maastricht

14:45 Discussion

15:00 Session 5 - Regulatory aspects
   » Philosophy of pharmacology: Safety, statistical standards, and evidence amalgamation
     Barbara Osimani, LMU, Munich
   » Medical device safety: Investigating contributions of human factors
     Kathrin Lange, BfArM/EMA, Bonn
   » Exercise and devices in pragmatic trials in Hypertension
     Thomas M. MacDonald, University of Dundee
   » Discussion: What next?

16:00 Summary, Funding and Outlook
   Farewell Apero

The organizers reserve the right for rearrangements

Interested to present a poster, give a talk or exhibit?
Please contact:
Dr. Martin Daumer
SLCMSR e.V.
Hohenlindener Str. 1
81677 Munich, Germany
E-Mail: daumer@slcmsr.org
Website: thehumanmotioninstitute.org
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In the "3rd Winter symposium of the human motion project" we’ll pick out walking as "pars pro toto". "Walking is man's best medicine" was known in ancient Greece (Hippocrates - c. 460 – c. 370 BC) - but is it really true? How would one measure and determine the right - effective and safe - dose for an individual and how would one measure the outcome? Mobile sensors, in particular mobile accelerometers that can measure various aspects of physical activity in the clinic and the "real world", will probably play an important role in this field.

As a fundamental element of "human motion" we will focus during this day on various aspects and consequences of walking/not walking for human health - with or without drug treatment. We’ll go from the clinical aspects to computational aspects (devices/sensors, data, algorithms, analysis, transmission) to the very important regulatory aspects of clinical trials and medical devices (safety, efficacy, feasibility). Experts from University hospitals, rehabilitations centers, manufacturers of medical devices, pharmaceutical companies, patients* and regulatory bodies will cover the broad spectrum of topics with a clear focus: to help the field to jointly establish a new set of meaningful clinical endpoints linked to objective measures of human motion.

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https://peerj.com/collections/6-humanmotionproject/

Martin Daumer/Roman Schniepp/Jörn Rittweger
Organizing Committee

* we expect almost everyone in the audience to have "experience" as a patient in one way or another.

THE VISION

REGISTRATION

Payment of Fees
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Account holder/beneficiary: Sylvia Lawry Centre for Multiple Sclerosis Research e.V.
Financial institution: HypoVereinsbank Munich
Innere Wiener Str. 60 - 81667 München
SWIFT/BIC HYVEDEMMXXX
IBAN-Code DE70 7002 0270 00 36 198 214

Confirmation
Upon receipt of the correct registration fee, each participant will receive a confirmation of registration. Please bring this confirmation to the registration desk as proof of your registration.

Cancellation Policy
Refund of registration fees will be as follows:
- until end of January 2016: 100% refund
- until end of February 2016: 50% refund
- No refund on cancellations after March 4th, 2016

Last minute registration: plus 20%
All Fees include 19% VAT
Fee includes drinks & Lunch

REGISTRATION CLOSING DATE
MONDAY, FEBRUARY 29TH, 2016

GERNARAL INFORMATION

Supported by

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Press

Academic Partners

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WLAN access in Auditorium B:
SSID ("WLAN-Name"): mwn-events
UserID: "THMP"
PW: "j22heoWu"
Please follow the instruction of the LRZ

Organizing Committee
Martin Daumer (PhD), SLC, Human Motion Institute, Trium, TUM, Munich
Jörn Rittweger (MD), Space Physiology, DLR, Cologne
Roman Schniepp (MD), LMU, German Center for Vertigo, Munich

Organizing Committee
Martin Daumer (PhD), SLC, Human Motion Institute, Trium, TUM, Munich
Jörn Rittweger (MD), Space Physiology, DLR, Cologne
Roman Schniepp (MD), LMU, German Center for Vertigo, Munich

Scan QR-Code or go to: http://goo.gl/forms/TEjiRhP39i

Press

Organizing Committee
Martin Daumer (PhD), SLC, Human Motion Institute, Trium, TUM, Munich
Jörn Rittweger (MD), Space Physiology, DLR, Cologne
Roman Schniepp (MD), LMU, German Center for Vertigo, Munich

WLAN access in Auditorium B:
SSID ("WLAN-Name"): mwn-events
UserID: "THMP"
PW: "j22heoWu"
Please follow the instruction of the LRZ

Scan QR-Code or go to: http://goo.gl/forms/TEjiRhP39i
The 2nd Winter Symposium of the HUMAN MOTION PROJECT

From Gait Labs to the Real World

March 6th 2015, Munich 8:00 - 18:00

Program

08:00 Registration | Coffee
08:30 Welcome by the Organizing Committee
08:45 Introduction: The Science of Walking
   Andreas Mayer*, Centre Alexandre Koyré - Histoire des Sciences et des Techniques, CNRS/EHESS, Paris
09:15 Keynote 1
   "Acceleromics" - a new era of measuring mobility in clinical research
   Martin Daumer*, SLC - Human Motion Institute | Trium | TUM, Munich
09:45 Symposium 1
   Clinical gold standards & mobile accelerometry to measure outcome
   Assessment of posture and gait at the Munich-Aibling-Balance Unit
   Klaus Jahn*, Schön Klinik Bad Aibling and German Center for Vertigo and Balance Disorders, Munich
   Mobile accelerometry and falls in patients with vertigo & dizziness
   Roman Schniepp*, Department of Neurology and German Center for Vertigo and Balance Disorders, Munich
   Ecologic validity of methods to assess walking ability in MS
   Patrick Stellman*, UKE, Hamburg
   Accelerometry in Parkinson's disease
   Markus Hobert*, HIH, Tübingen
10:45 Coffee Break & Posters
11:15 Keynote 2
   Performance at old age
   Jörn Rittweger*, Space Physiology, DLR, Cologne
11:45 Symposium 2
   Exercise and Disease
   What is the real world in carcinogenesis?
   Björn Brücher*, Theodor Billroth Academy, Munich | Sacramento
   Prehabilitation - Exercise before Arthroplasty
   Lothar Saefried*, University of Würzburg
   The Copenhagen Women study: Preliminary data related to cardiovascular health
   Ylva Hellsten*, University of Copenhagen
12:30 Buffet Lunch & Physical Activity
   Parcours - Balance and gait tests, physiotherapy, natural walking and running shoes, poster & exhibition
14:00 Keynote 3
   Validation studies for mobility outcomes
   Jörg Goldhahn*, NIBR, Basel | ETH, Zürich
14:15 Symposium 3
   Fundamental motion outcomes
   Steps
   Reto W. Kressig*, University of Basel
   Walking speed
   Eling de Bruin* - dual task, ETH, Zürich
   Falls
   Jochen Klenk*, University Ulm
   Gait variability for quantification of the human sensory-motor system
   Niklas König*, ETH, Zürich
15:15 Coffee Break & Posters

organized by

http://goo.gl/forms/jRSooHZKwj

BLÅK MEDICAL EDUCATION CREDITS 8
16:00 Keynote 4
Regulator’s view on the scientific and regulatory challenges in new mobility outcomes & PROs
Gabriele Schlosser-Weber*, BfArM/EMA, Bonn

16:30 Symposium 4
Panel Discussion: Big Data, Validation & Transparency
- Information extraction and transparency in big data processing
  Ieuan Clay*, NIBR, Basel
- How to get better data in medicine
  Tom MacDonald*, University of Dundee
- Provocative statements: Publishing the wish to share data vs sharing data
- Governance: How to build structures to guarantee the development of meaningful & valid outcomes
- Funding & Independence

17:45 Summary & Farewell

18:00 "Goodbye Drinks"

---

Venue
Klinikum der Universität München (LMU)
Campus Großhadern
Auditorium No. 2
Lecture-room section, 2nd floor
Marchioninistr. 15
81377 Munich - Germany
Approach: www.klinikum.uni-muenchen.de

U6 Klinikum Großhadern

Time
Friday, March 6th 2015
8:00 – 18:00

Registration
- Industry 360€
- Public research institution 240€
- PhD Students 80€
- Students 40€
- Students presenting poster free
- Interested patients free
- Press free
All fees are subject to an additional 19% VAT - not refundable
All fees include drinks & lunch

Some hotels (near Campus Großhadern)
www.hotel-thalmair.de
www.hotel-neumayr.de
www.empress-hotel.de

Space is limited, please register early
Closing date for Registration February 27th 2015
"last minute" registration possible (+20%)

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Interested to present a poster, give a talk or exhibit?
Please contact:
Dr. Martin Daumer
Director
SLCMSR e.V. – The Human Motion Institute
Hohenlindener Str. 1
81677 Munich, Germany
Tel:  +49 89 206026902
Fax:  +49 89 206026951
Mail:  daumer@slcmsr.org
Website:  thehumanmotioninstitute.org

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* Speakers confirmed participation
The organizers reserve the right for rearrangements

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Foot & Ankle
PeerJ - Human Motion Collection
www.PeerJ.com

Press/Publication

Academic Partners

Organizing Committee
Martin Daumer PhD, SLC, Human Motion Institute, Trium, TUM
Jörg Goldhahn MD, NIBR, ETH Zürich
Klaus Jahn MD, LMU, German Center for Vertigo and Balance Disorders
The vision of the Human Motion Project is to become a successful analogue of the Human Genome Project: improving human health by an open collaborative technology platform for the mobile medical monitoring of human motion. The basis is a growing "critical path toolbox" and a biomedical data warehouse for collecting, archiving, analysing, and disseminating human motion data including a library of validated algorithms.

08:30 – 09:00  Registration / Coffee
09:00 – 09:15  “The Human Motion Project” & Agile Learning
               Dr. Martin Daumer
09:15 – 09:45  Biomechanics of sport shoes & running injuries
               Prof. Markus Walther, Director Schönklinik/Harlaching, Munich
09:45 – 10:05  Biomechanics of lower limbs from the view of Spiraldynamic
               Dr. Jens Wippert, elementhera, Munich
10:05 – 10:20  Meta Products - towards a “gait/running style app”
               Dr. Martin Daumer & Student team
10:20 – 11:00  Coffee Break & Exhibition
               Natural running, Meta products (EASY IMP - EU FP7) etc.
11:00 – 11:30  Falls as outcome in clinical trials
               Dr. Jörg Goldhahn, Novartis, Basel; Niklas König, ETH Zürich
11:30 – 11:45  The importance of patient compliance
               Miriam Porter, Novartis, Basel
11:45 – 12:10  Validation of methods to detect falls - Biomechanics of fractures and falling
               Prof. William R. Taylor, Institute for Biomechanics, ETH Zürich
12:10 – 12:30  Gait & Posture Analysis in the “Deutsches Zentrum für
               Schwindel- und Gleichgewichtsstörung”
               Dr. Roman Schniepp, LMU Schwindel- und
               Gleichgewichtsstörung, Munich
12:30 – 13:30  Lunch & Exhibition gait/balance/falls
13:30 – 14:00  Mobile accelerometry for measuring gait, balance and falls
               Dr. Martin Daumer & Student team (mediolateral sway, gait
               speed and variability measurements, Fall detection)
14:00 – 14:30  Myokines and clinical trials
               Prof. Ylva Hellsten, Department of Nutrition, Exercise and
               Sports, University of Copenhagen
14:30 – 15:00  Coffee Break & Exhibition
15:00 – 15:20  Stress, Pain and Sport
               Prof. Dr. Pia-Maria Wippert, Universität Potsdam
15:20 – 15:40  your724.com: the key to move your health?
               Dr. Martin Daumer & student team
15:40 – 16:00  Controversy: Acceleromics & Genomics
               what are the lessons from FDA’s ban of www.23andME.com?