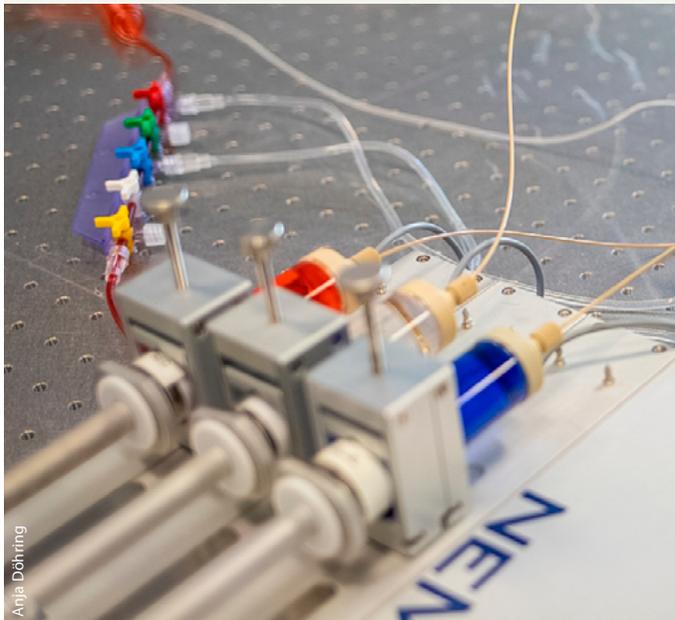




14th Workshop Low Liquid Flows in Medical Technology

September 15th, 2021
BioMedTec ScienceCampus Lübeck



WELCOME TO LÜBECK

Although you are not visiting Lübeck in person this year, we welcome you to our city and our laboratories.

Our 14th Workshop will be held online and in English this year. It is also a project meeting of the European „Metrology for Drug-Delivery“ project, which is funded by EURAMET. First results of this project will be presented.

If you are interested in presenting your own results, we will have break-out rooms during the break. Please contact us if you are interested.

We are very much looking forward to your participation and hope you will enjoy the contributions!

Stephan Klein

INFORMATION AND REGISTRATION

www.th-luebeck.de/msgt



TANDEM – Technology and Engineering in Medicine
The North German Competence Center for Medical
Technology of the Universität zu Lübeck and the
Technische Hochschule Lübeck

BACKGROUND

The flow of liquids inside or outside the human body plays a key role in medical technology. Safety and reliability of many medical devices or their components, e.g. dialysis machines, infusion devices, or liquid-handling systems for in-vitro diagnostics, require safe and reliable dosing of liquids. For that reason all aspects of dosing, handling, and measuring of low liquid flows are current topics of many research activities.

Our annual workshop addresses these aspects and brings together participants from different institutes and institutions to allow the exchange on a personal basis.





PROGRAM

- 10:00 WELCOME**
Stephan Klein
- 10:05 PART I: METROLOGY FOR DRUG-DELIVERY PROJECT - MEDD II**
Chair: Elsa Batista
- 10:05 MeDD II - Aims, Partners, Methods
Elsa Batista
- 10:30 Development and validation of calibration techniques for ultra-low flowrates below 100 nl/min
Emmelyn Graham
- 10:50 Break**
- 11:00 Traceable pipe viscosimeters for in-line measurement of dynamic viscosities
Hugo Bissig
- 11:20 From device testing to calibration guidelines
Anders Niemann
- 11:40 Designing a multi-infusion system representative for clinical practice
Annemoon Timmerman
- 12:00 Break**
We offer break-out rooms for presentations of participants (posters, experimental setups, testing equipment etc.) Please contact us if you are interested.

- 1:30 PART II: APPLICATION AND RELATED RESEARCH**
Chair: Stephan Klein
- 1:35 Pre-concentration methods for detection of pathogens in microfluidic systems
Roana Hansen
- 1:55 Mass-fabrication of microfluidic systems applicable for medical diagnostic
Jan Kafka
- 2:15 Antibiotic Susceptibility-Testing based on nanofluidic cell immobilization and growth detection in an optofluidic system
Ann-Katrin Klein
- 2:35 Discussion: „Traceability of Measured Values“
Elsa Batista, Hugo Bissig, all participants

PRESENTERS

- Dr. Elsa Batista**
Portuguese Quality Institute, Caparica, Portugal
- Dr. Emmelyn Graham**
The National Engineering Laboratory, East Kilbridge, United Kingdom
- Dr. Hugo Bissig**
Federal Institute of Metrology METAS, Bern, Switzerland
- Dr. Anders Niemann**
Danish Technological Institute (DTI), Aarhus, Denmark
- Dr. Annemoon Timmerman**
University Medical Center Utrecht, Utrecht, The Netherlands
- Prof. Dr. Roana Hansen**
Syddansk Universitet, Sønderborg, Denmark
- Dr. Jan Kafka**
Inmold A/S, Hørsholm, Denmark
- Ann-Katrin Klein**
Institute for Microtechnology, Technische Universität Braunschweig, Germany

