Organisers

IHK Lübeck

IHK zu Lübeck
www.ihk-sh.de/lsa

Supported by

BioMedTec Wissenschaftscampus

BioMedTec Wissenschaftscampus
www.bio-med-tec.de

FACH HOCHSCHULE LÜBECK
University of Applied Sciences

Lübeck University of Applied
Sciences – Medical Sensors
and Devices Laboratory
www.msgt.fh-luebeck.de

Fraunhofer MEVIS

Fraunhofer MEVIS
www.mevis.fraunhofer.de

LIFE SCIENCE NORD

Life Science Nord e.V.
www.lifesciencenord.de

UNIVERSITÄT ZU LÜBECK
STIFTUNGSUNIVERSITÄT
SEIT 2015

Universität zu Lübeck
www.uni-luebeck.de

Networking Partners

Bundesverband der Arzneimittel-Hersteller e.V. .B.A.H
beraten · analysieren · handeln

B.A.H. e.V.
www.bah-bonn.de

DiagnostikNet|BB
NETZWERK DIAGNOSTIK BERLIN–BRANDENBURG e.V.

Diagnostiknetz Berlin–Brandenburg
http://diagnostiknet-bb.de/

(FFM) Forum für Medizintechnik

F.F.M. e.V.
www.ffm-luebeck.com

Initiative Bildverarbeitung e.V.

Initiative Bildverarbeitung e.V.
www.initiative-bildverarbeitung.de

ScanBalt BioRegion BUSINESS

ScanBalt BioRegion
www.scanbalt.org

VDE DGBMT

DGBMT
www.vde.com/de/dgbmt/

VDI

Lübecker Bezirksverein

Verein Deutscher Ingenieure
www.vdi.de

VDMA
Arbeitsgemeinschaft Medizintechnik

VDMA AG Medizintechnik
https://medtec.vdma.org

Registration, contact and further information

LSA2018 Website and Online registration
Please register before 22 June 2018 at www.ihk-sh.de/lsa
Programme details may be subject to change.

Fees and discount fees
All participants must register. Attendance fee is 50 EUR. Discount
fee is 30 EUR. Representatives of member organisations of the
BioMedTec Science Campus and of Life Science Nord are eligible
for the discount fee. Students are exempt from fees. A valid
student ID is required at registration.

Table-top exhibition
Room MF 500
Fees for table-top stands are 250 EUR plus 19% V.A.T. per stand, in-
cluding catering and free access to the conference presentations for
two staff of the exhibitor's organisation. Stands include a stand-up
table and space for one roll-up display. Further details and a service
package leaflet are available from IHK zu Lübeck (see below for con-
tact details).

Poster exhibition
Room MF 500
Posters on (1) regulatory affairs for medical devices, (2) microfluidics
or (3) deep learning are welcome. A limited number of poster boards
(1.20 m width, 1.50 m height) is available. For further details please
contact IHK zu Lübeck (see below for contact details).

Location
MediaDocks, Willy-Brandt-Allee 31, 23554 Lübeck / Germany
For directions see http://www.media-docks.de/lage-anfahrt.php

Accommodation
Hotel Excelsior Lübeck
www.hotel-excelsior-luebeck.de

Klassik Altstadt Hotel Lübeck
www.klassik-altstadt-hotel.de

Atlantic Hotel Lübeck
www.atlantic-hotels.de/luebeck

Park Inn by Radisson Lübeck
www.parkinn.de/hotel-luebeck

Contact
IHK zu Lübeck
Dirk Hermsmeyer
Fackenburger Allee 2
23558 Lübeck, Germany
Phone +49-451-6006-191
hermsmeyer@ihk-luebeck.de

Note: With registration I agree to the organisers using and storing
my personal data for the organisation of this event. Personal data
will not be forwarded to third parties.

IHK Lübeck

LSA2018
Lübeck Summer Academy on Medical Technology
– Regulatory Affairs
– Microfluidics
– Deep Learning

July 4, 2018, 8.30 am to 5.30 pm
MediaDocks, Lübeck

Welcome to LSA2018!

Our topics are regulatory affairs for medical devices, microfluidics and artificial intelligence.

The *Medical Device Regulation (MDR)* transition period ends in May 2020. The designation process of notified bodies (NB) in accordance with the MDR is presently ongoing. At this stage, manufacturers are lacking information from their NB about requirements they will need to fulfil to bring their products on the European market legally in less than two years. In the Regulatory Affairs session, experts will shed light on some aspects of this doubtful situation. It is organised by *Life Science Nord's Working Group on Regulatory Affairs*. We invite you to engage in interactive panel discussions.

The *flow of liquids* inside and outside the human body plays a key role in medical technology. Safety and reliability of many medical devices and their components, e.g. dialysis machines, infusion pumps, or liquid-handling systems for in-vitro-diagnostics, require safe and reliable dosing of liquids. Experts from academia and industry will discuss their current projects. Research and industrial presentations are accompanied by an exhibition. The session is organised by the *Medical Sensors and Devices Lab* of the *Lübeck University of Applied Sciences*.

Artificial Intelligence (AI) continues to be the most hyped, cross-sectional technology today. AI revolutionizes pattern recognition in images and language as well as robotics and autonomous systems. Applications based on deep learning are meant to optimise, i.e. to change their behaviour or the results they produce, during their application in the market. This fundamentally challenges the way of thinking hitherto applied in making rules and regulations for technology. How can future standards safeguard AI- and DL-based products? We will look at some technological and ethical aspects of AI- and DL-based applications in medical technology and beyond. The session is co-organised by *Fraunhofer MEVIS* and the *Institute for Electrical Engineering in Medicine* of the University of Lübeck.

A common introductory session with key notes, posters, and a table-top industry exhibition will complete LSA2018.

You are most cordially invited!

Heike Wachenhausen, Conference Chair
(Head of Life Science Nord Working Group on RA)

Programme

8.30	Registration and coffee

Plenum Session: Welcome and Introductory Key Notes
Room MF 500

9.00	**Welcome** Gabriele Gillessen-Kaesbach President, University of Lübeck
9.10	**Key note 1:** **AI Now and in the Future – Opportunities and Risks** Wolfgang Hildesheim Head of Watson and AI, DACH - IBM Cognitive Solutions IBM Deutschland GmbH, Hamburg
10.00	**Key note 2:** **Emerging Medical Technology in Politics and Society** Christopher Coenen Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology (KIT)
10.50	**Discussion**
11.10	Refreshments and exhibition

Parallel Session 1: Regulatory Affairs
Room MF 500

11.45	**Medical Device Regulation:** **Implementation on European Level, First Results** Matthias Neumann German Federal Ministry of Health, BMG, Berlin
12.30	**Designation Process of Notified Bodies** Andrea Johmann Central Authority of the Länder for Health Protection with regard to Medicinal Products and Medical Devices, ZLG
13.15	Lunch and exhibition
14.15	**Re-Designation and Transition Period –** **Impact on Manufacturers** Klaus-Dieter Ziel MEDCERT GmbH Notified Body, Hamburg
14.45	**Clinical Data for Conformity Assessment and Regulatory Approval** Michael Imhoff qtec consult GmbH, Lübeck

15.15	Refreshments and exhibition
15.45	**Meeting UDI-requirements – Lessons Learnt and Customer Perspective** Sylvia Reingardt GS1 Germany GmbH, Köln
16.15	**Panel discussion: From EU-MDD to EU-MDR**
16.45	Get-together: Refreshments and exhibition

Parallel Session 2: Microfluidics
11th Lübeck Workshop on Low Liquid Flows in Medical Technology
Room MF 50-1

11.45	**Bringing the Lab out of the Lab: A Microfluidic based In Vitro Diagnostics Platform for Multiple Biomarker Point-of-Care Detection** Frank Bier Fraunhofer-Institut for Cell Therapy and Immunology, Potsdam
12.15	**Isolation of Exosomes Using Viscoelastic Fluids in a Microfluidic Device** Daniil Mirosnikov POC Solutions ApS, Kongens Lyngby, Denmark
12.45	**The Planned Multi-MicroFlow Facility at PTB** Corinna Kroner PTB National Metrology Institute of Germany, Braunschweig
13.15	Lunch and exhibition
14.15	**Liquid/Liquid Slug Flow and Mass Transport in a Micro-Capillary Reactor – Simulation and Experiment** Peter Ehrhard TU Dortmund - Fluid Mechanics
14.45	**Lab-on-Chip: A Universal Microfluidic Platform for Molecular Diagnostics** Franz Lärmer Robert Bosch GmbH, Stuttgart
15.15	Refreshments and exhibition
15.45	**Micro Fluidic System for the Investigation of the Synovial Liquid by X-ray Scattering Methods** Florian Wieland Helmholtz-Zentrum Geesthacht (DESY outstation), Hamburg

15.15	Refreshments and exhibition
16.15	**Isolating Adherent Single Cells – The Taming of the Shrew** Chris Wetzel MMI Molecular Machines & Industries GmbH, Microscopic Single Cell Isolation, Eching
16.45	Get-together: Refreshments and exhibition

Parallel Session 3: Artificial Intelligence and Deep Learning
Technological and Ethical Aspects of AI- and DL-Based Products
Room MF 100-1

11.45	**Machine Learning for Wearable Computing. A Chance for Deep Learning?** Robert Dürichen Robert Bosch GmbH, Stuttgart
12.15	**Why Deep Learning will not Replace Radiologists** Horst Hahn Fraunhofer MEVIS, Bremen
12.45	**Deep Learning for Motor Control** Elmar Rückert Institut für Robotik und Kognitive Systeme, Universität zu Lübeck
13.15	Lunch and exhibition
14.15	**Technical Committee on AI at DIN (German Institute for Standardization)** Katharina Sehnert DIN e.V., Berlin
14.45	**Challenges in Face Recognition** Constantin Sandmann DERMALOG Identification Systems GmbH, Hamburg
15.15	Refreshments and exhibition
15.45	**Intelligent Agents and the Law** Susanne Beck University of Hannover
16.15	**Panel discussion: Technological and Ethical Aspects of AI in Health and Beyond**
16.45	Get-together: Refreshments and exhibition