NMI
achieving results

CIN
Werner Reichardt
Centre for Integrative Neuroscience

NMI
achieving results

Programme

Tuesday, June 28, 2016

12:00-20:00	Registration
13:00-19:00	Satellite symposium: **Tübingen Neurotech 2016**
19:00	Opening of MEA Meeting 2016 Keynote lecture: Andres Lozano
20:30-23:00	Welcome reception

Wednesday, June 29, 2016

8:45-:12:15	Scientific sessions with keynote lectures
13:30-15:30	Poster session
16:00-17:30	Scientific sessions with keynote lectures
18:30-23:00	Social event: Punt ride on Neckar/Tübingen

Thursday, June 30, 2016

8:45-12:15	Scientific sessions with keynote lecture
13:30 - 15:30	Poster session
16:00-17:30	Scientific session
18:30-23:00	Social event: Conference dinner – Bebenhausen - Monastery and Palace

Friday, July 1, 2016

8:30-12:30	Scientific sessions with keynote lecture

Registration
Details on online registration see meeting websites

Organizer
NMI Natural and Medical Sciences Institute
Markwiesenstrasse 55, 72770 Reutlingen, Germany

Conference Venue
Stadthalle Reutlingen, Reutlingen

Meeting Websites
www.nmi.de/meameeting
www.nmi.de/neurotech
Check the websites regularly for news and details.

Follow us on facebook
www.facebook.com/MEA.meeting

Contact
meameeting@nmi.de

MEA Meeting 2016
10th International Meeting on
Substrate-Integrated Microelectrode Arrays

June 28-July 1, 2016
Reutlingen, Germany

www.nmi.de/meameeting

**Electrophysiological Tools for Neuroscience,
Biotechnology and Biomedical Engineering**

Tübingen Neurotech 2016
2nd Tübingen Symposium on
Current Topics in Neurotechnology

June 28, 2016, 12:00
Reutlingen, Germany

www.nmi.de/neurotech

**Research for Vision:
From Neuroscience to Neurotechnology**

NMI 2016

Tübingen Neurotech 2016

Research for Vision: From Neuroscience to Neurotechnology
June 28, 2016, 12:00-19:00

The 2nd Tübingen Neurotech Symposium addresses the findings from neuroscience research for retinal and cortical processing of visual information, and builds a bridge to neurotechnological aids in blindness after retinal degeneration.

It will discuss the latest insights into retinal and cortical representations of visual information, into retinal degeneration and the state of technology intended for its treatment. In two panels with a total of ten talks, the symposium will show how the range from basic research to clinical research to clinical application can successfully be integrated, drawing on the expertise of CIN, NMI and corporate speakers.

The first panel concentrates on basic research, exploring what we know about the retinal and neuronal basis of vision: how is the visual signal pre-processed and encoded in the retina? Which are the channels that deliver visual information from the retina to the brain? What is the role of active gaze direction by the visuomotor system? And what mechanisms are active in retinal degeneration?

The second panel will provide an overview of the possibilities of neurotechnological solutions to these degenerative mechanisms, showing how far neurotechnology has come. The panel will feature talks on cellular therapies, two stimulation techniques (retinal and transcorneal), as well as the current state of retinal implants.

As part of the International MEA Meeting, Neurotech 2016 will conclude with that larger event's official opening ceremony and opening lecture. The evening will close in a general get-together.

Sponsors

okuvision — a pulse for vision

retina implant

Lectures
- Philipp Berens - The Functional Diversity of Mouse Retinal Ganglion Cells
- Matthias Bethge - Predicting where people look
- Thomas Euler - Balanced excitation and inhibition decorrelates visual feature representation in the mammalian inner retina.
- Ziad Hafed - Sharper, stronger, faster upper visual field representation in primate superior colliculus.
- Sonja Kleinlogel - Light in Sight: optogenetic designer cell-based therapy for vision recovery
- Siegfried Wahl - Inducing a preffered retinal locus of fixation
- Walter-G. Wrobel - Clinical reliability of conformally coated retina implants: approaches, statistics and experiences
- Günther Zeck - Technologies for high-density spatial electrical stimulation
- Eberhart Zrenner - Hereditary retinal degeneration and present therapeutic strategies
- Ida Zündorf - Transcorneal electrostimulation therapy

Joint evening
Keynote Lecture, 19:00:
Andres M. Lozano -
Emerging Strategies in Functional Neurosurgery
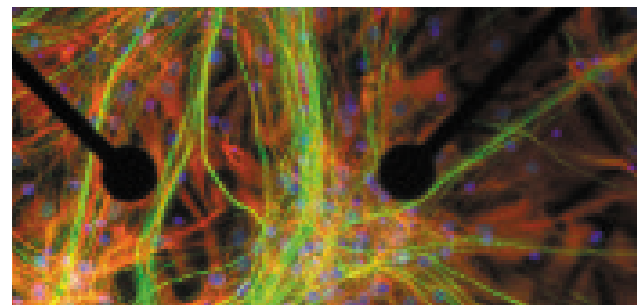
MEA Meeting 2016

Science, Technology and Applications
June 28 - July 1, 2016

Microelectrode arrays (MEA) are routinely used in basic and industrial research and development in neuroscience, cardio-vascular research, drug discovery, and neuro-technology.

MEAs have helped to unravel the fundamental physiological functions of the brain, such as memory, learning, circadian rhythms, and neuronal development. Through MEAs, we are beginning to broaden our understanding of cognitive diseases, such as Alzheimer´s disease and epilepsy. Advancements in MEA technology have given new momentum to cardiovascular, stem cell, and retina research.

The biennial MEA Meeting has established itself as the most important international meeting on MEA and Neurochip technology. It is a unique platform for scientific exchange among users and internationally recognized scientists from academia and industry. It attracts biologists, engineers, and physicists from around the globe to Reutlingen.

Lectures
- Chad Bouton - Cracking the Neural Code, Treating Paralysis, and the Future of Bioelectronic Medicine
- Oliver Marre - Reading the population code of the retinas
- Elena Matsa - Human iPSCs: a platform for precision medicine to predict drug cardiotoxicity
- Jennifer B. Pierson - Building Confidence via Consortium - Developing novel in vitro data sets to inform drug development and safety
- Steve M. Potter - Closed-loop neural control with optogenetics and MEAs
- Thomas Wachtler - Keeping track of complex data: Benefits of comprehensive data management

Sponsor

multichannel systems