

1st International congress on mobile health devices and seizure detection in epilepsy



7 - 8 July, 2017



Copenhagen - Denmark

DEAR COLLEAGUES,

IT IS A PLEASURE TO WELCOME YOU TO THE 1ST INTERNATIONAL CONGRESS ON MOBILE HEALTH DEVICES AND SEIZURE DETECTION IN EPILEPSY IN COPENHAGEN DENMARK FROM JULY 7 - 8, 2017.

RECENT ADVANCES IN SIGNAL ANALYSIS AND INFORMATION TECHNOLOGY HAVE TRIGGERED A BOOM IN THE FIELD OF MOBILE HEALTH, WITH IMPORTANT APPLICATIONS TO THE MANAGEMENT OF PATIENTS WITH EPILEPSY, INCLUDING SEIZURE DETECTION.

THE GOAL OF THE COLLOQUIUM IS TO DISSEMINATE, FACILITATE AND ACCELERATE PROGRESS IN THE DEVELOPMENT OF MOBILE HEALTH SOLUTIONS AND SEIZURE DETECTION DEVICES FOR PATIENTS WITH EPILEPSY.

THE WORKSHOP WILL ENHANCE INFORMATION-EXCHANGE AMONG RESEARCHERS, HIGH-TECH COMPANIES, MEDICAL ORGANIZATIONS AND PATIENTS' ORGANIZATIONS FACILITATING NETWORKING, DEVELOPMENT OF JOINT PROJECTS AND COLLABORATIONS IN THIS QUICKLY DEVELOPING FIELD.

IN ADDITION, INTERACTIVE, EDUCATIONAL HANDS-ON SESSIONS WILL CONTRIBUTE TO THE DISSEMINATION OF NOVEL TECHNOLOGIES.

MAIN TOPICS:

- SEIZURE-DETECTION: WHICH MODALITIES CAN BE IMPLEMENTED IN MOBILE DEVICES?
- SEIZURE-DETECTION: PUBLISHED EVIDENCE SO FAR.
- HOW TO COUPLE SEIZURE-DETECTION WITH THERAPEUTIC INTERVENTIONS.
- SUDEP PREVENTION THROUGH MOBILE HEALTH.
- SEIZURE DIARIES BASED ON AUTOMATED SEIZURE DETECTION.
- TELEMEDICINE IN EPILEPSY (EEG, HOME-VIDEO-EEG MONITORING, FOLLOW-UP MEETINGS, SECOND OPINION SESSIONS)
- FROM RESEARCH AND DEVELOPMENT TO IMPLEMENTATION IN PRACTICE: WHAT ARE THE NEEDS OF THE PATIENTS AND HEALTHCARE PROVIDERS?

WE WISH YOU ALL VERY WELCOME TO COPENHAGEN!

[HTTPS://WWW.ETOUCHES.COM/MOBIL2017](https://www.etouches.com/mobil2017)
COPENHAGEN, DENMARK

VENUE
HOTEL SCANDIC COPENHAGEN ****
VESTER SOEGADE 6
DK - 1601 COPENHAGEN V

PROGRAM

THURSDAY JULY 6TH 2017

19:00 NETWORKING DINNER IN THE OLD TIVOLI GARDEN.

FRIDAY JULY 7TH 2017

8:00 - 8:45 REGISTRATION AND BREAKFAST

PLENARY SESSION 1

08:45 – 09:15 SEIZURE DETECTION USING INTRACRANIAL EEG FOR CLOSED LOOP SYSTEM

MARTHA MORRELL, Department of Neurology and Neurological Sciences, Stanford University, Stanford, USA.

09:15 – 09:45 SEIZURE DETECTION USING SCALP EEG

CHRISTOPH BAUMGARTNER, Karl Landsteiner Institute for Clinical Epilepsy Research and Cognitive Neurology; Sigmund Freud University, AUSTRIA

09:45 – 10:15 SEIZURE DETECTION USING MOVEMENT SENSORS

JOHAN ARENDS, Epilepsie Centrum Kempenhaeghe, NETHERLANDS

10:15 – 10:45 SEIZURE DETECTION USING SURFACE ELECTROMYOGRAPHY

SÁNDOR BENICZKY, Danish Epilepsy Centre and Aarhus University, DENMARK

10:45 – 11:15 COFFEE BREAK

PLATFORM PRESENTATIONS 1

11:15 – 11:30 NON-EEG BASED SEIZURE DETECTION: NECESSITY, AVAILABILITY, POSSIBILITIES, REQUIREMENTS AND CHALLENGES.

ANOUK VAN DE VEL, University Hospital of Antwerp, BELGIUM

11:30 – 11:45 EPSMON – SAFETY IN YOUR POCKET: PATIENT SELF-EMPOWERMENT SAVES LIVES

BRENDAN MCLEAN, The Royal Cornwall Hospitals NHS Trust, UNITED KINGDOM

11:45 – 12:00 SEIZURE DETECTION WITH INTEGRATED SENSOR GARMENTS

KRISTINA MALMGREN, Sahlgrenska Academy and University Hospital, SWEDEN

12:00 – 12:15 USER BASED EVALUATION OF APPLICABILITY AND USEFULNESS OF A WIRELESS WRIST ACCELEROMETER IN REGISTERING TONIC-CLONIC SEIZURES

PIRGIT MERITAM, Danish Epilepsy Center, DENMARK

12:15 – 12:30 INTEGRATING TECHNOLOGY AND ADVANCED ANALYTICS TO IMPROVE OUTCOMES OF PEOPLE LIVING WITH EPILEPSY

ERIK JANSSEN, UCB Biopharma SPRL

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FRIDAY JULY 7TH 2017 - CONTINUED

12:30 – 13:30 **LUNCH IN EXHIBITION AREA**

13:30 – 14:30 **POSTER SESSION**

PLENARY SESSION 2

14:30 – 15:00 **RADAR-CNS: REMOTE MONITORING OF EPILEPSY USING WEARABLE SENSORS**

MARK RICHARDSON, King's College London, Institute of Psychiatry,
UNITED KINGDOM

15:00 – 15:30 **DATA COMPRESSION STRATEGY FOR LONG TERM HOME MONITORING**

NIKOLAOS VOROS, Technological Educational Institute of Western, GREECE

15:30 – 16:00 **COFFEE BREAK**

KEYNOTE LECTURE

16:00 – 17:00 **CONTINUOUS MULTIMODAL RECORDING USING EPIWATCH**

GREGORY KRAUSS, Johns Hopkins University, Baltimore, MD, USA

PROGRAM

SATURDAY JULY 8TH 2017

FLASH-UP PRESENTATIONS

8:00-8:10 **AUTOMATED VIDEO-BASED DETECTION OF CONVULSIVE SEIZURES IN A RESIDENTIAL CARE SETTING**

EVELIEN GEERTSEMA, Stichting Epilepsie Instellingen Nederland (SEIN)

8:10-8:20 **EAR-EEG FOR MOBILE LONG-TERM EEG MONITORING OF INTERICTAL AND ICTAL EVENTS**

IVAN ZIBRANDTSEN, Zealand University Hospital, Neurological Dep. DENMARK

8:20-8:30 **AUTOMATED R-PEAK DETECTION ALGORITHM FOR PATIENTS WITH EPILEPSY USING A PORTABLE ELECTROCARDIOGRAM RECORDER: FIRST STEP TOWARDS PORTABLE SEIZURE DETECTOR.**

JESPER JEPPESEN, Dep. of Neurophysiology, Aarhus University Hospital, DENMARK

8:30-8:40 **TONIC SEIZURE DETECTION BASED ON MULTIMODAL DETECTION METHODS USING THE EPISense SENSOR**

JOYCE VAN SLUIS, Kempenhaeghe Epilepsy Centre, NETHERLANDS

8:40-8:50 **QNEURO – CLOUD-BASED MEDICAL ASSISTANCE AND DECISION SUPPORT SYSTEM FOR EFFECTIVE TREATMENT AND ASSISTANCE OF EPILEPSY PATIENTS**

PIOTR ZWOLINSKI AND MARIUSZ CHMIELEWSKI, EnQuant, POLAND

8:50-9:00 **OBSTACLES IN THE IMPLEMENTATION OF WEARABLE SEIZURE DETECTION TECHNIQUES IN A RESIDENTIAL CARE FACILITY.**

NICOLE ROMMENS, Stichting Epilepsie Instellingen Nederland (SEIN)

9:00-9:10 **FEASIBILITY OF HOME VIDEO TELEMETRY POLYSOMNOGRAPHY FOR ASSESSING SLEEP RELATED NEUROLOGICAL DISORDERS**

PETER MUTHINJI, King's College Hospital, UNITED KINGDOM

9:10-9:20 **AN AUTOMATIC MULTIMODAL SEIZURE DETECTION ALGORITHM FOR EVALUATION OF AMBULATORY EEG RECORDINGS**

FRANZ FÜRBASS, AIT Austrian Institute of Technology GmbH, AUSTRIA

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SATURDAY JULY 8TH 2017 - CONTINUED

PLENARY SESSION 3

9:30-10:00 SEIZURE DETECTION USING MULTIMODAL SIGNALS
FRANS LEIJTEN, University Medical Center Utrecht, NETHERLANDS

10:00-10:30 SEIZURE PREDICTION
ANDREAS SCHULZE-BONHAGE, Epilepsy Center, Medical Center, University of Freiburg, GERMANY

10:30-11:00 COFFEE BREAK

PLENARY SESSION 4

11:00-11:30 WEARABLE DEVICES IN SUDEP PREVENTION
PHILIPPE RYVLIN, Department of Clinical Neurosciences, CHUV, Lausanne, Switzerland and Epilepsy Institute IDEE, Lyon, FRANCE

11:30-12:00 IMPLEMENTATION OF WEARABLE DEVICES IN PRAXIS: THE POINT OF VIEW OF THE HEALTHCARE PROVIDERS
JENS-OTTO JEPPESEN, Danish Epilepsy Centre, DENMARK

12:00-12:30 WEARABLE SENSORS AND LOW-POWER INTEGRATED CIRCUITS IN HEALTH CARE APPLICATIONS
ESTHER RODRIGUEZ-VILLEGAS, Department of Electrical and Electronic Engineering, Imperial College London, London, UNITED KINGDOM

12:30-13:30 LUNCH

PLATFORM PRESENTATIONS 2

13:30 – 13:45 TRANSFORMATIONAL POWER OF AN INTEGRATED HVT SERVICE MODEL. AN IMPACT ANALYSIS.
FRANZ BRUNNHUBER, King's College Hospital, UNITED KINGDOM

13:45-14:00 CLINICAL EVALUATION OF THE BRAIN SENTINEL® GTC SEIZURE DETECTION AND WARNING SYSTEM
JOSÈ CAVAZOS, Brain Sentinel, UNITED STATES

14:00-14:15 ULTRA-LONG-TERM RECORDINGS OF BRAIN AND HEART
TROELS W KJÆR, Zealand University Hospital, Roskilde, DENMARK

PANEL DISCUSSION

14:15-15:00 STANDARDS FOR TESTING AND CLINICAL VALIDATION OF SEIZURE DETECTION DEVICES

VENUE

The meeting will take place at:
Hotel Scandic Copenhagen ****
Vester Soegade 6
DK - 1601 Copenhagen V

10 minutes walk from Copenhagen Central Station and 15 min.
by taxi or train from Copenhagen Airport.

REGISTRATION

Delegate fees:

- Early bird before April 1st: DKK 3.000
 - After April 1st: DKK 3.700
 - Exhibitors attending with a booth: DKK 1.800
- Conference dinner in Tivoli Gardens on July 6th: DKK 250

[HTTPS://WWW.ETOUCHES.COM/MOBIL2017](https://www.ETOUCHES.COM/MOBIL2017)

ACCOMMODATION

At Hotel Scandic Copenhagen. A block reservation has been made at the venue from July 6 - 9, 2017. This hotel can be booked as part of the registration. Extra nights please contact mb@meetingplanners.dk

Rate per night from: DKK 1.250.
Buffet breakfast and Wi-Fi included.

LOCAL CONGRESS ORGANISER

For questions in regards to sponsorship, registration and accommodation.

The Meeting Planners

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