

# PHEALTH 2015 PROGRAM

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**TUESDAY, 2 JUNE 2015**

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13:00 – 14:00 **CONFERENCE REGISTRATION, COFFEE**

13:30 – 17:20 **SATELLITE-CONFERENCE: NOVAMEDTECH NETWORKING CONFERENCE 2015**

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17:20 – 18:00 **STUDENTS' POSTER SESSION**

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18:00-19:30 **WELCOME RECEPTION AT AROS CONGRESS CENTER, VÄSTERÅS (ON INVITATION)**

WELCOME ADDRESS: MATS ENLUND, CENTRE FOR CLINICAL RESEARCH

WELCOME ADDRESS: DAMIR ISOVIC, MÄLARDALEN UNIVERSITY

WELCOME ADDRESS: PETER PHAROW, ORGANIZER OF THE PHEALTH CONFERENCE SERIES

WELCOME ADDRESS: MIKAEL WINTELL, HL7 SWEDEN

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**WEDNESDAY, 3 JUNE 2015**

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08:30-08:45 REGISTRATION

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08:45-11:00 **WELCOME AND KEYNOTE SESSION**

**CHAIRS:** PETER PHAROW, GERMANY; MIKAEL WINTELL, SWEDEN

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SPC CHAIR: BERND BLOBEL, GERMANY – SPC WELCOME ADDRESS

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LOC CHAIR: MARIA LINDÉN, SWEDEN – LOC WELCOME ADDRESS

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DIRECTOR GENERAL THE SWEDISH COUNCIL ON HEALTH TECHNOLOGY ASSESSMENT: OLIVIA WIGZELL – WELCOME ADDRESS

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**KEYNOTE SPEECH:** ANDREAS LYMBERIS, EUROPEAN COMMISSION: “HOW SMART SYSTEMS, BIO & MED TECH ENABLE PHEALTH? PRESENT AND FUTURE DEVELOPMENTS THROUGH THE EUROPEAN FP7 AND H2020 PROGRAMMES”

**KEYNOTE SPEECH:** BERND BLOBEL, GERMANY: “THE IMPORTANCE OF ARCHITECTURES FOR INTEROPERABILITY”

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11:00-11:20 COFFEE BREAK - DEMO AND EXHIBITION

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11:20-13:00 **INTEROPERABLE ICT AND TELEMEDICINE**

**CHAIRS:** FILIPE SOUSA, PORTUGAL; MATS BJÖRKMAN, SWEDEN

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A Generic Architecture for an Adaptive, Interoperable and Intelligent Type 2 Diabetes Mellitus Care System  
*Gustavo Uribe, Bernd Blobel, Diego López, Stefan Schulz (Colombia, Germany, Austria)*

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Interactive Distance Technology Enabling Home-Based Motor Training for Stroke Patients

*Maria Ehn, Pär Hansson, Marie Sjölander, Inga-Lill Boman, Mia Folke, Disa Sommerfeld, Jörgen Borg, Susanne Palmcrantz (Sweden)*

Smartphone Serious Games for Senses Evaluation

*Pedro Dias, Bruno Aguiar, Filipe Sousa, Augusto Sousa (Portugal)*

Specializing Architectures for the Type 2 Diabetes Mellitus Care Use Cases with a Focus on Process Management

*Gustavo Uribe, Bernd Blobel, Diego López, Alonso Ruiz (Colombia, Germany)*

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13:00-14:00 LUNCH

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14:00-15:55 **SIGNAL PROCESSING**

**CHAIRS:** DIETMAR RAFOLT, AUSTRIA; ARASH GHAREH BAGHI, SWEDEN

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ECG Artifact Removal from Surface EMG Signal Using an Automated Method Based on Wavelet-ICA

*Sara Abbaspour, Maria Lindén, Hamid Gholamhosseini (Sweden, New Zealand)*

Noise Reduction for a MEMS-Gyroscope-Based Head Mouse

*Jiaying Du, Christer Gerdman, Maria Lindén (Sweden)*

EmoBurnout: An Approach for Supporting Burnout Syndrome Diagnosis

*Martinez Esteban, Giovanni Mera, Carolina Gonzalez, Diego López, Bernd Blobel (Colombia, Germany)*

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Heart Rate Measurement as a Tool to Quantify Sedentary Behavior

*Anna Åkerberg, Gregory Koshmak, Anders Johansson, Maria Lindén (Sweden)*

POSTER SHORT PRESENTATION

User Centered Design of a Personal Health Record System for Metabolic Syndrome

*Diego López, Rosa Alvarez, Hernán Sierra (Colombia)*

A Generic System-level Architecture for Self-Serve Health Monitoring System through Internet of Things (IoT)

*Mobyen Uddin Ahmed, Mats Björkman, Maria Lindén (Sweden)*

A Framework for (Tele-) Monitoring of Rehabilitation Progress in Stroke Patients

*Dietmar Rafolt (Austria)*

Smart Wireless Sensor for Physiological Monitoring

*Ivan Tomasic, Viktor Avbelj, Roman Trobec (Sweden, Slovenia)*

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16:00-16:20 COFFEE BREAK - POSTERS AND EXHIBITION

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16:20-17:35 **INNOVATIVE MATERIALS AND METHODOLOGIES**

**CHAIRS:** PER ASK, SWEDEN; NIKOLA PETEROVIC, SWEDEN

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Psychologist in a Pocket

*Jó Ágila Bitsch, Roann Ramos, Tim Ix, Paula Glenda Ferrer-Cheng, Klaus Wehrle (Germany, Philippines)*

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Impedance Matching Wireless Power Transmission System for Biomedical Devices

*Kin Yun Lum, Maria Lindén, Tian Swee Tan (Malaysia, Sweden)*

An in vitro Study of Protein Adsorption to Biocompatible Coatings

*Trine Seeberg, Hanne O. Austad, Ingelin Clausen, Henning Cederkvist, Magnar Bjørås, Rune Forstørn Johansen (Norway)*

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19:00-23:00 **SOCIAL EVENT: CONFERENCE DINNER**

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## **THURSDAY 4 JUNE 2015**

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09:00-09:45 **KEYNOTE SESSION**

**CHAIRS:** BERND BLOBEL, GERMANY, MARIA LINDÉN, SWEDEN

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**KEYNOTE SPEECH:** ANNA LEFEVRE SKJÖLDEBRAND, SWEDEN: "TECHNOLOGY READY TO BE LAUNCHED, BUT IS THERE A PAYER?"

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09:45-11:30 **SOLUTIONS FOR PERSONALIZED CARE AND MHEALTH APPLICATIONS**

**CHAIRS:** HAMID GHOLAMHOSSEINI, NEW ZEALAND; ELAINE ÅSTRAND, SWEDEN

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**INVITED SPEECH:** DIEGO M. LÓPEZ, COLOMBIA: "MHEALTH IN LOW- AND MIDDLE-INCOME COUNTRIES: STATUS, REQUIREMENTS AND STRATEGIES"

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Mobile ECG Systems and Cardiovascular Risk: A Systematic Review

*Sebastián Felipe Landínez García, César Villamil Perafán, Diego López, Bernd Blobel (Colombia, Germany)*

Towards Brain Research in a Pocket: Bringing EEG Research and Diagnostics out of the Lab

*Jó Ágila Bitsch, Roann Ramos, Cassandra Severijns, Klaus Wehrle (Germany, Philippines)*

Development of an Eating Aid from the User Needs to a Product

*Ann-Louise Lindborg, Maria Lindén (Sweden)*

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11:30-11:55 COFFEE BREAK - DEMO AND EXHIBITION

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11:55-13:10 **WEARABLE AND IMPLANTABLE DEVICES AND SYSTEMS**

**CHAIRS:** DIEGO LÓPEZ, COLOMBIA; MARTIN EKSTRÖM, SWEDEN

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A Study of Different Fabrics to Increase Radar Cross Section of Humans

*Torbjörn Ödman, Jan Welinder, Nils-Bertil Andersson, Magnus Otterskog, Maria Lindén, Natalia Ödman, Christer Larsson (Sweden)*

Encapsulation for Smart Textile Electronics – Humidity and Temperature Sensor Performance

*Andreas Larsson, Thanh-Nam Tran, Knut E Aasmundtveit, Trine Seeberg (Norway)*

Business Model Design for a Wearable Biofeedback System

*Patrik Hidefjäll, Dina Titkova (Sweden)*

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13:10-14:10 LUNCH

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14:10-15:50 **INTELLIGENT SYSTEMS**

CHAIRS: PEKKA RUOTSALAINEN, FINLAND; SHAHINA BEGUM, SWEDEN

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Advanced Decision Support System for Older Adults

*Mirza Baig, Hamid Gholamhosseini, Martin Connolly, Maria Lindén (New Zealand, Sweden)*

Supervised Machine Learning Algorithms to Diagnose Stress for Vehicle Drivers Based on Physiological Sensor Signals

*Shaibal Barua, Shahina Begum, Mobyen Uddin Ahmed (Sweden)*

A Personalized Health-Monitoring System for Elderly by Combining Rules and Case-based Reasoning

*Mobyen Uddin Ahmed (Sweden)*

A Public Health Decision Support System Model using Reasoning Methods

*Maritza Mera, Carolina González, Bernd Blobel (Colombia, Germany)*

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15:50-16:10 COFFEE BREAK - DEMO AND EXHIBITION

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16:10-17:30 **SECURITY, PRIVACY, SAFETY AND ETHICS**

CHAIRS: PETER PHAROW, GERMANY; IVAN TOMASIC, SWEDEN

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**INVITED SPEECH: PEKKA RUOTSALAINEN, FINLAND: “THE ROLE OF PATIENTS IN PHEALTH”**

Personalized Message Routing Policy in Pervasive eHealth Applications Based on HL7 RIM

*Nachoua Guizani, Jocelyne Fayn (France)*

Privacy Management and Networked PPD- Systems - Challenges and Solutions

*Pekka Ruotsalainen, Peter Pharow, Françoise Petersen (Finland, Germany, Sweden)*

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**17:30-17:55 GENERAL POSTER SESSION**

**CHAIRS: MARIA LINDÉN, SWEDEN; ASBJORN HOVSTO, NORWAY**

POSTER SHORT PRESENTATION

Assisting Drug Dispensing using Google Glass: a Prototype Implementation

*Frederic Ehrler, Raphaël Diener, Christian Lovis (Switzerland)*

Wearable Sensors in Medical Education: Supporting Hand Hygiene Teaching with a Forearm EMG

*Ekaterina Kutafina, David Laukamp, Stephan M. Jonas (Poland, Germany)*

Prediction of Heart Attack Risk Using GA-ANFIS Expert System Prototype

*Lejla Begic Fazlic, Aja Avdagic, Ingmar Besic (Croatia, Germany)*

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Dynamic Enhancement of a Smart System for Early Detection of Language Disorders

*Maria Luisa Martín Ruiz, Miguel A. Valero, Iván Pau de la Cruz (Spain)*

Personalized Decision Support System Based on Clinical Practice Guideline

*Nassim Douali, Jos De Roo, Pauline Sweetman, Elpiniki I. Papageorgiou, Marie-Christine Jaulent (France, Belgium, UK, Greece)*

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17:55-18:20 **CLOSING CEREMONY**

**CHAIRS:** BERND BLOBEL, GERMANY; PETER PHAROW, GERMANY; MARIA LIN-DÉN, SWEDEN; MOBYEN UDDIN AHMED, SWEDEN

BEST CONTRIBUTION AWARD

BEST STUDENT'S POSTER AWARD

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