

Tuesday, 4 May

Registration

Conference opening 10:30

Key note: Dr. Benedetto Vigna

Invited: Prof. Lars Samuelson

Lunch break

Poster session/Brokerage event

Invited: Dr. Edvard Kälvesten

Coffee break

Oral session 1a:
Medical

Oral session 1b:
Automation

Social event

Conference dinner

Wednesday, 5 May

Key note: Prof. Luke Lee

Invited: Prof. Sami Franssila

Coffee break

Oral session 2a:
Transport

Oral session 2b:
CleanTech

Lunch break

Invited: Dr. Marcel Giesen

Oral session 3a:
Telecom

Oral session 3b:
Security

Conference closing 16:00

Scientific Program 4 May 2010

09.00–
10.30 **Registration and Coffee**

10.30 **Welcome** G. Stemme & C. Vieider
Room: Repslagaren

10.40 **Invited 1:** A new RF-MEMSmetal via capping platform
E. Kälvesten – Silex Microsystems AB
Room: Repslagaren

11.10 **Invited 2:** Chemical microsystems: nanoliters and attomoles
S. Franssila – Aalto University
Room: Repslagaren

11.40 **Lunch**

13.00 **Poster Session**

15.00 **Key Note:** Nanoplasmonic satellites and optofluidic application
specific Integrated Systems
Prof. L. Lee, Dept. of Bioengineering, UC Berkeley
Room: Repslagaren

15.40 **Coffee Break**

Medical Technology
Room: Repslagaren

Security & Safety
Room: Segelmakaren

16.00 Nanoplasmonic sensing of
cellmembrane mimics
F. Höök – Chalmers

Technology for Modular and Reconfigurable
Rapid Response Nanosatellites
F. Bruhn – AAC AB

16.20 Breath alcohol sensor for emergency
care
J. Steggo – Hök Instr. AB

A microstructured magnetoresistive
magnetometer for space applications
A. Persson – UU

16.40 Microfluidic systems for point-of-care
diagnostics
W. van der Wijngaart – KTH

Ink-Jet printing of wireless surveillance tags
with integrated sensor functionality
H.-E. Nilsson – Mid University

17.00 Microfluidic based proteomics for
biomarker discovery and early
diagnostics
F. Nikolajeff – UU

Scintillator matrix technology
A. Sahlholm – Scint-X AB

Scientific Program 4 May 2010

Medical Technology

Room: Repslagaren

- 17.20 Self assembly monolayers of designed peptides on gold nanoparticles can act as specific sensors
D. Ilver – Imego AB
- 17.40 Acoustic whole blood plasmapheresis chip for psa microarray diagnostics
A.A. Tajudin – LU

Security & Safety

Room: Segelmakaren

- Quantum-well silicon-germanium bolometers for low-cost infrared imagers
F. Niklaus – KTH
- Low cost, high performance long wave infrared microbolometer
R. Audun – SensoNor A/S

18.00-
19.30 **Social Event**

20.00 **Conference Dinner**

Scientific Program 5 May 2010

- 08.30 **Key Note:** MEMS Move into Smart Sensors,
B. Vigna, VP MEMS & Healthcare Product Division, ST Microelectronics.
Room: Repslagaren
- 09.10 **Coffee Break**
- Cells on Chip**
Room: Repslagaren
- Process & Packaging**
Room: Segelmakaren
- 09.40 Cell separation based on
acoustophoresis and applications in
health care.
T. Laurell – LU
- Low temperature cofired ceramics for mems
bonding
M.F. Khan – Chalmers
- 10.00 Microfluidic technologies for
cell-based analysis of surface
receptors with fast activation kinetics
M. Karlsson – Cellectricon AB
- MEMS at Sintef
D. Wang – SINTEF A/S
- 10.20 Organic bioelectronics
E. Jager – LiU
- Expanding in situ TEM instrumentation
with MEMS technology
A. Nafari – NanoFactory AB
- 10.40 Controlling cell interaction by
ultrasound in a multi-well microplate
M. Wiklund – KTH
- Small but tough - microsystems for harsh
environments
K. Brinkfeldt – Swerea IVF
- 11.00 Bacteria isolation from whole blood
for Sepsis diagnostics
A. Russom – KTH
- Low resistive metallic through silicon via
A. Ljunggren – AAC AB
- 11.20 Microstructures cell culturing
platform for qualitative
neuroscientific studies
T. Schönberg – Acreo AB
- Low-cost Through Silicon Vias (Tsvs) with
wire-bonded metal cores and low capacitive
substrate-coupling
A. Fischer – KTH
- 11.40 **Lunch**

Scientific Program 5 May 2010

CleanTech & Automation

Room: Repslagaren

Telecom

Room: Segelmakaren

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| 12.40 | New cost effective micro fuel cell charger
A. Lundblad – MyFC | Microwave MEMS activities at KTH
J. Oberhammer – KTH |
| 13.00 | Silicon carbide based sensor system for domestic biofuel boiler control
B. Hammarlund - Sensic | High performance passive RF components for mobile communications
I. Katardjiev – UU |
| 13.20 | IR-sensors for measurement of greenhouse gases
H. Rödjegård – SenseAir | RF MEMS in a GaAs MMIC foundry process: applications and test results
R. Malmqvist |
| 13.40 | Combining active control and conditioning based monitoring using smart embedded Piezo sensors and actuators
H. Åkesson – Acticut | RF MEMS tuneable high-impedance metamaterial surfaces for millimeter-wave applications
M. Sterner – KTH |
| 14.00 | Raw milk quality control using acoustophoresis
C. Grenwall – LU | A miniaturized optical communication system for microspacecraft
K. Palmer – UU |
| 14.20 | Micromirror arrays for maskless lithography
T. Karlin – Micronic | Hot-wall MOCVD growth of hexagonal GAN pyramids for single-photon emitter ap
A.Lundskog |
| 14.40 | Coffee Break | |
| 15.10 | Invited 3: RF-MEMS capacitive switches enable tunable RF for mobile devices
M. Giesen - TDK-EPC Corporation
<i>Room: Repslagaren</i> | |
| 15.40 | Invited 4: Nanometer structure consortium
L. Samuelson – Lund University
<i>Room: Repslagaren</i> | |
| 16.10 | Conference Closing
<i>Room: Repslagaren</i> | |
| 16.40 | Transport leaves for optional tour at Electrum in Kista | |
| 17.00 | Tour of the Electrum laboratory cleanroom | |