



Biomedical Sensors Foresight Workshop

3 March 2006, 09.00-17.00
Citykonferensen, Stockholm, Sweden

Foresight Biomedical Sensors

A Nordic consortium headed by SINTEF (Norway) and with the participants VTT (Finland), FOI (Sweden), S-SENCE (Sweden), STC (Denmark) and MedCoast-Scandinavia is conducting a foresight study *Foresight Biomedical Sensors* (<http://www.nordic-fobis.net/>). The project is supported by the Nordic Innovation Centre. This workshop is the third to be held as parts of the project and is directed towards policy makers, industry and researchers. The workshop is co-supported by Uminova Innovation and CMTF-Norr.

Objectives

- To enable a strategic understanding of the possibilities and implications of the use of biomedical sensors for healthcare purposes by establishing likely scenarios for technology, applications and markets.
- To provide a framework for commercially viable exploitation of biomedical sensor penetration in the Nordic region by enhancing a network of competencies relevant to technology and applications.

The workshop

In the third workshop we will try to answer the question "How do we get there?" and discuss and establish technology premises and boundaries. We discuss a likely technology-driven scenario development and give hands-on example on sensor implementation in the healthcare sector. We discuss and establish market enablers and restrictions. We discuss the role of health care authorities and other public organs. The workshop includes world-leading sensor experts and key stake holders and policy makers. An exhibition will be integrated with the workshop and used as an arena to discuss the workshop theme "How do we get there?"

- Key note speakers (see biography on last page):
 - Ingemar Lundström, Linköping University
 - Brian MacCraith, Dublin City University
 - Olof Lindahl, Luleå Technical University and CMTF
 - Bengt Kasemo, Chalmers and Göteborg University
- Moderator: Rita Westvik, SINTEF
- 12.00-13.30 Lunch
- Exhibition (Products, prototypes, hands-on demos and posters)
- Panel discussion with key note speakers. Moderator: Rita Westvik, SINTEF

Background

The health care systems of the industrialized countries are expected to undergo major changes within the next 10 - 15 years. The number of elderly people requiring treatment will grow considerably; so-called welfare diseases and low exposure problems gain increasing attention. At the same time technical advancements in diagnosis and treatments will continue to occur. A number of new health care technologies will emerge and several will be adopted by the health care systems.

The Nordic countries have well-developed and extensive health care systems. There are strong industries within pharmaceutical development, production and marketing as well as strong companies in medical diagnostics. Micro-and nanotechnology and telemedicine are also areas where the Nordic countries have strong competence profile. In order to take advantage of the needed symbioses of these technology fields, Nordic industry need to create collaborative networks and strategic alliances. The region is in an excellent position to exploit potential benefits of biomedical sensors both as users and as vendors of sensors and systems.

Registration

The workshop is free of charge (incl. lunch) but pre-registration is required. The registration is web-based and is done by filling in the form available at <http://www.nordic-fobis.net/workshop/ws3>. The registration is open until Friday 25 Feb. The workshop is limited to ca 60 persons.

We encourage participants to take part in the exhibition and present your own material (products, prototypes demos, or posters). For further information please contact Dag Ausen, Phone: +47-2206 7546 or Lars Österlund, Phone: +46 90 106900.

Location

Citykonferensen, Malmskillnadsgatan 46, Stockholm.
www.citykonferensen.se - See map on next page.

About the organizers

The third Fobis workshop is organized by FOI, which has been active in the area of biosensors for more than 25 years. The third workshop is also supported by Uminova Innovation, BioTech Umeå and CMTF, which brings together leading expertise in the area of biomedical engineering, including biomedical sensors from northern Sweden.



www.uminovainnovation.se



www.cmtf.umu.se

(Centre for Biomedical Engineering and Physics)



Biography

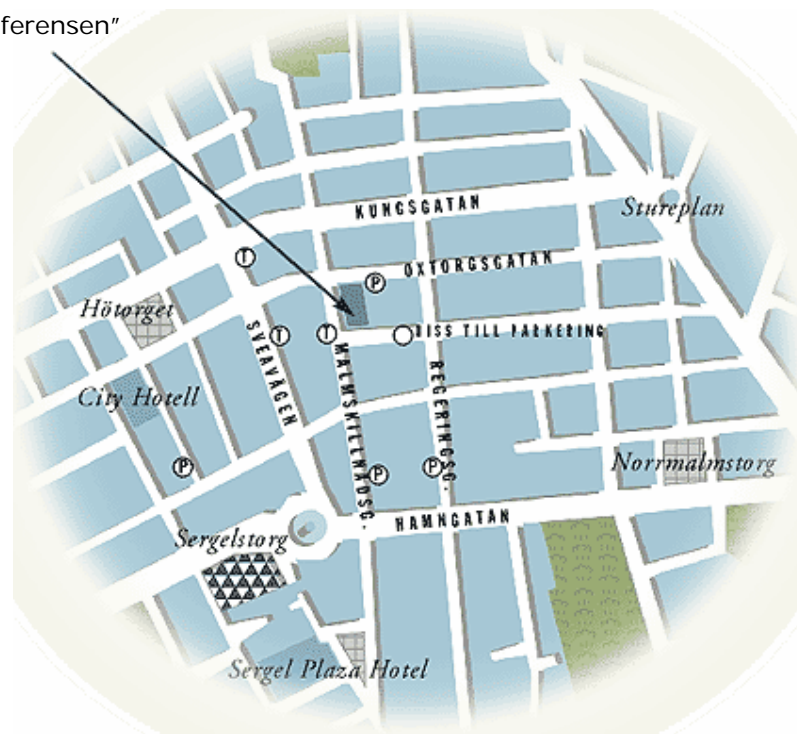
Ingemar Lundström is professor in and head of the Division of Applied Physics at Linköping University, where he directs a multidisciplinary research group working on new concepts for bio- and chemical sensing. His achievements include the development of catalytic gate field-effect for chemical detection and new methods for biospecific interactions, and the use of computer screen as a versatile light source for bio- and chemical analysis.

Brian MacCraith, is professor at Dublin City University (DCU), and is an expert in the field of optical chemical sensors and biosensors. In 1999 he was appointed Director of the National Centre of Sensor Research (NCSR) at DCU. His work has focused mainly on the exploitation of luminescence techniques in combination with advanced photonic materials and innovative measurements platforms with particular application to array biochips. In 2005 he left NCSR for to become Institute Director at the Biomedical Diagnostics Institute at DCU.

Bengt Kasemo is professor in chemical physics at Chalmers University of Technology and Göteborg University where he directs a multidisciplinary research group on a variety of projects including biomaterials, biosensors, sensor techniques, heterogeneous catalysis, and sustainable energy technologies. He has amongst other things pioneered the area of biological surface science. He is co-founder of several companies, one in the area of biomedical sensors.

Olof Lindahl is Professor of Biomedical Engineering at Luleå Technical University and Umeå University in Sweden. He is also Director for the Centre for Biomedical Engineering and Physics in Northern Sweden (CMTF). His research includes sensors for better diagnosis in health care, mainly resonance sensors in human tissue characterization and tactile video. He holds several patents and is co-founder of two companies in the field.

Location "Citykonferensen"



By "T-bane"

"Hötorget", entrance "Sergelgatan/Malmskillnadsgatan"

"Östermalmstorg", entrance "Birger Jarlgatan"

"T-centralen", entrance "Drottningatan"