

European Competence Centre Biomedical Microdevices

MEDnews 2/2004 – September 23

Topics

1 MEDICS news

Check our new webpage

Success story at MEDICS' Office Sweden

Success story at MEDICS' South Office

Innovations at MEDICS' Office Switzerland

New articles on transplant monitoring systems and developments in ultrasound imaging available for download

2 Come and meet us at MEDICA 2004 on 24-27 November 2004 in Duesseldorf, Germany

3 International cooperation forum on "Telemetry Systems for Biomedical Applications"

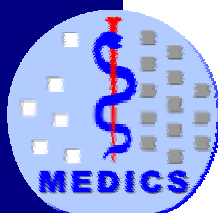
4 Other upcoming events

*Summer school chemical nanotechnology, 27
September – 1 October 2004*

*NanoMed 2004 – 4. International Workshop on
Biomedical Applications of Nanotechnology, 14-15
October 2004*

*MEDICS presentation at CYTED 2004, 17-19 October
2004*

*IEEE Transactions on Advanced Packaging – Call for
Papers*



European Competence Centre Biomedical Microdevices

1 MEDICS NEWS

CHECK OUR NEW WEBPAGE

We are happy to present you a complete redesign of our webpages.

We have increased the overall usability and ease of use to help our customers to get a better overview of the content.

The site now features a fully database-driven event list, which allows visitors to submit proposals for event entries and, thus, to inform the community of biomedical professionals on where to be.

<http://www.medics-network.com>

MEDICS' search engine MEDsearch has been redesigned in the same process and now allows a quick search option from the MEDICS site. MEDsearch provides 100% manually selected information on and for all players within the biomedical market.

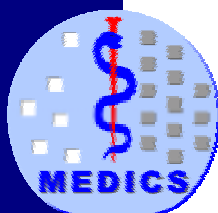


<http://www.medics-network.com/medsearch>
(please use Internet Explorer 5.0 or higher)

SUCCESS STORY AT MEDICS' OFFICE SWEDEN

GIVEN IMAGING HAS SELECTED ZARLINK ULTRA LOW-POWER WIRELESS TECHNOLOGY FOR WORLD'S ONLY SWALLOWABLE CAMERA CAPSULE.

The capsule – consisting of a microchip camera, light-emitting diodes that act as a flash, Zarlink's RF transmitter chip, antenna and two silver-oxide batteries – is swallowed by the patient and then passes naturally through the digestive tract. The camera's images are relayed by the RF transmitter to a data recorder in a



European Competence Centre Biomedical Microdevices

belt worn by the patient, who is free to continue with normal daily activities throughout the examination.

For more information please check:
<http://news.zarlink.com/archive/2004/May/25/May25-Givens-English.htm.en>

SUCCESS STORY AT MEDICS' SOUTH OFFICE

A NOVEL SYSTEM FOR MONITORING ORGANS FOR TRANSPLANTATION.

The key element of the new monitoring system is a microsensor that measures the impedance of the organ tissue to be transplanted. Carbuos Metalicos SA. (Air Products Group) has purchased the exploitation rights of this system for this very specific application.

However, it can be foreseen that many other fields of application such as oncology or food quality control could profit from this innovative technology.

i2m-design, south office of MEDICS, provides support for the technology transfer.

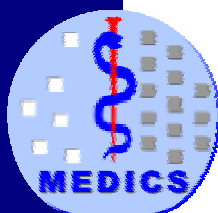
For more information please contact:
Dr. Aliette Mouroux
+34 93 691 4352, aliette.mouroux@i2m-design.com

INNOVATIONS AT MEDICS' OFFICE SWITZERLAND

WEARABLE AND WIRELESS SENSOR SYSTEM FOR LONG-TERM MEDICAL SURVEY.

The European Space Agency (ESA) is considering a manned space mission to Mars towards 2030. Therefore, ESA is planning a partnership with Concordia base partners in Antarctic in order to study the human behaviour and medical parameters of the Concordia crew.

The corresponding architecture for an intelligent, robust and comfortable patient-monitoring system to monitor astronauts has been worked out by CSEM.



European Competence Centre Biomedical Microdevices

PORTABLE OXIMETRY MONITORING WITH MOVEMENTS ARTIFACTS CANCELLATION.

A blood oxygen saturation (SpO₂) monitor sensor has been developed by CSEM. The sensor has been encapsulated in a standard earphone system, which is easily worn for long time periods without any discomfort.

SMART CLOTHES FOR BIOMEDICAL CONTINUOUS MONITORING.

Early diagnosis as well as a healthy and preventative lifestyle can help fight the onset of many health problems and save millions of lives per year. To achieve this objective, long-term monitoring of human vital signs are required to obtain knowledge on a person's health status. CSEM participates in the development of the electronics for a wearable system for biomedical monitoring.

HOMELINK: A MEDICAL COMPLIANCE DEVICE WITH INTERNET INTERFACE.

For many medical treatments, taking the prescribed medication dose at the right time is essential. Compliance monitoring devices help the patient to take their medication regularly and new communication systems via Internet inform the medical staff about delays or omissions, thus making quick corrective actions possible. CSEM has developed a system which records pill-intake events and transmits the data via Internet to a service centre for compliance follow-up.

For more information, please contact:

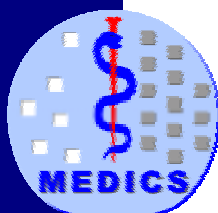
Jean Luprano

Tel.: +41 32 720 5582, jean.luprano@csem.ch

NEW ARTICLES ON TRANSPLANT MONITORING SYSTEMS AND DEVELOPMENTS IN ULTRASOUND IMAGING AVAILABLE FOR DOWNLOAD

MEDICS already published eight articles in the European magazine 'Medical Device Technology'; here is a short overview about the published articles that are available as pdf-download on our webpages:

<http://www.medics-network.com/publications>



European Competence Centre Biomedical Microdevices

- Systems for Research and Development in Medical Ultrasound Imaging, MDT June 2004
- A Novel System for Monitoring Organs for Transplantation, MDT April 2004
- Implantable, Flexible Electrodes for Functional Electrical Stimulation, MDT January/February 2004
- Homecare: A Telemedical Application, MDT December 2003
- Capillary Chip Based Characterisation of Small Tissue Samples, MDT November 2003
- Magnetic Resonance Coils, MDT October 2003
- Implantable Microsystems 2/2, MDT January/February 2002
- Implantable Microsystems 1/2, MDT December 2001.

2 COME AND MEET US AT MEDICA 2004 ON 24-27 NOVEMBER 2004 IN DUESSELDORF, GERMANY

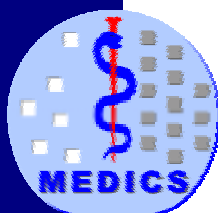
At stand F05 in hall 10 we will present different samples covering the topics microimplants, telemedicine, biohybrid systems, medical ASICs and medical ultrasound. We invite you to discuss your specific questions with our experts.

For more information on MEDICA 2004 please visit:
<http://www.medica.de>

3 INTERNATIONAL COOPERATION FORUM ON "TELEMETRY SYSTEMS FOR BIOMEDICAL APPLICATIONS"

At present, MEDICS is planning an international cooperation forum on 'Telemetry Systems for Biomedical Applications' to take place in spring 2005. The forum will follow the successful "One-on-One"-concept of similar events.

We will provide you with detailed information in our next newsletter.



European Competence Centre Biomedical Microdevices

4 OTHER UPCOMING EVENTS

SUMMER SCHOOL CHEMICAL NANOTECHNOLOGY, 27 SEPTEMBER – 1 OCTOBER 2004

From 27 September to 1 October 2004, a summer school on chemical nanotechnology will be held in Saarbruecken, Germany. The summer school will focus on the topics nanoparticle technology, surface technology and applications for life sciences.

You can register at:

http://www.cc-nanochem.de/Aktuell_2.htm

NANOMED 2004 – 4. INTERNATIONAL WORKSHOP ON BIOMEDICAL APPLICATIONS OF NANOTECHNOLOGY, 14-15 OCTOBER 2004

The “NanoMed – 4 International Workshop on Biomedical Applications of Nanotechnology” will be held in Berlin, Germany, on 14–15 October 2004.

You can register online at:

<http://www.cc-nanochem.de/Aktuell.htm>

MEDICS PRESENTATION AT CYTED 2004, 17-19 OCTOBER 2004

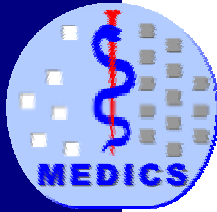
From 17 to 19 October 2004, the FORUM CYTED-IBEROEKA 2004 in Lisbon will take place. Prof. Jordi Aguiló of MEDICS' South Office will give a presentation on 'MEDICS: access to services for the development of microtechnologies for biomedical applications'.

For more information please visit:

<http://www.cytcd.org/forumcyted-iberoeka2004/DefaultPT.asp>

IEEE TRANSACTIONS ON ADVANCED PACKAGING – CALL FOR PAPERS

Packaging is recognised as a major challenge to the advancement of micro-scale and nano-scale systems.

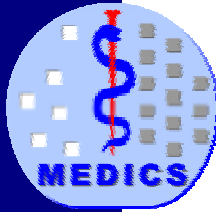


European Competence Centre Biomedical Microdevices

A special issue on 'Packaging for Micro/Nano-Scale Systems' for IEEE Transactions on Advanced Packaging is planned. Papers should be submitted by 31 October 2004 and will be published around May 2005 if accepted after peer-reviewed.

For more information please visit:
<http://www.cpmt.org/trans/trans-ap.html>

or contact:
Dr. Thomas Velten
+49 6894 980 301, thomas.velten@ibmt.fraunhofer.de



European Competence Centre Biomedical Microdevices

----- Thank you very much for your attention -----

Yours sincerely

Andreas Schneider
Head of MEDICS

Fraunhofer IBMT - MEDICS Coordination Office
Industriestr. 5, D-66280 Sulzbach
Tel: +49 6897 9071-42, Fax: -49
<mailto:medics@medics-network.com>
<http://www.medics-network.com>

> To remove your address from the recipient list:
mailto:medics@medics-network.com?subject=unsubscribe_MEDnews.

> Former issues of MEDnews can be downloaded at:
<http://www.medics-network.com/mednews>.

MEDnews is the electronic newsletter of MEDICS, the European Competence Centre for Biomedical Microdevices. MEDnews is periodically sent to a continuously growing number of friends and partners within the biomedical community. In October 1997, MEDICS was launched in the framework of the European initiative 'Europractice'. Since July 2002, the MEDICS consortium consists of:

- + Fraunhofer Institute for Biomedical Engineering IBMT (D) as coordinator
- + i2m Design (E)
- + Zarlink Semiconductor (S, NL)
- + Swiss Centre for Electronics and Microtechnologies CSEM (CH)

MEDICS offers various technology, information and consulting services to stimulate the use of micro & nano technologies for biomedical applications. For further details on MEDICS please visit:
<http://www.medics-network.com>.