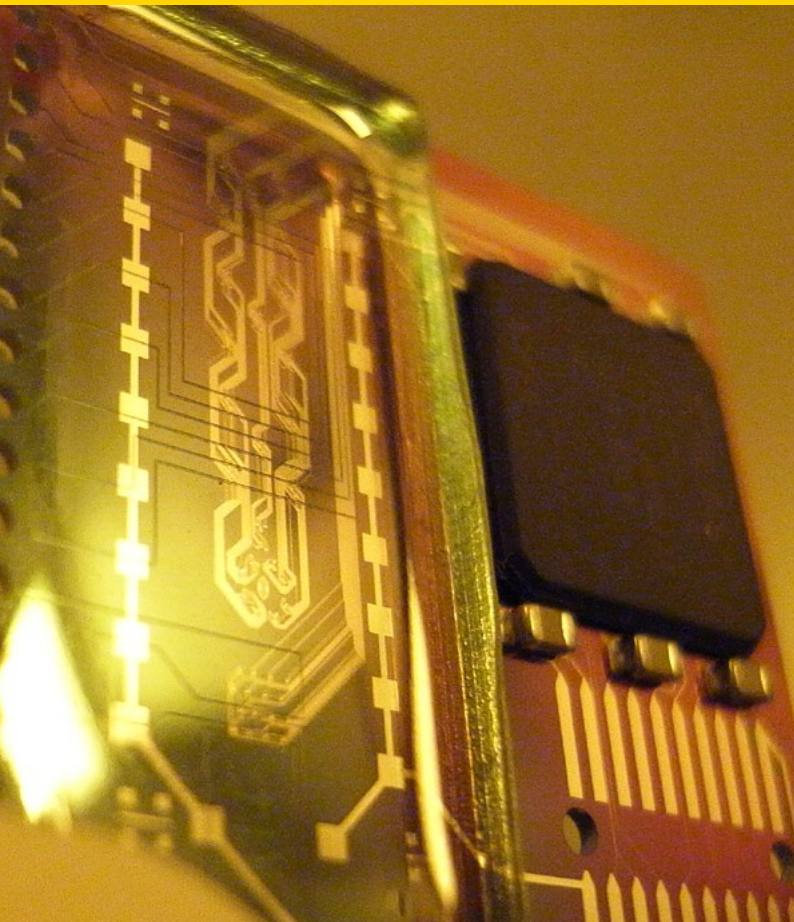


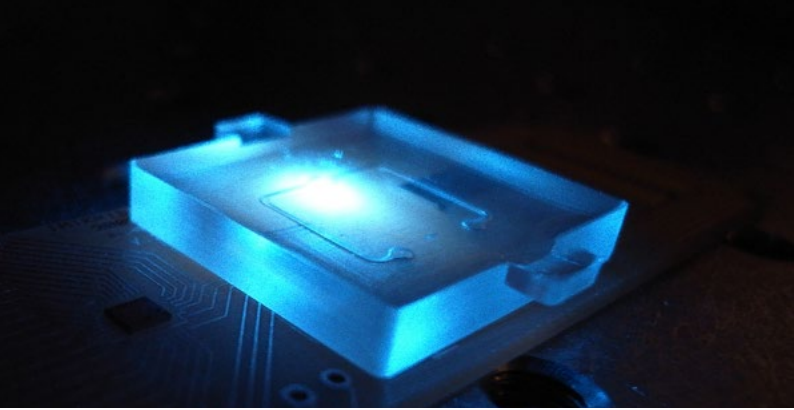
MEDICA, Nov 12 - 15, Düsseldorf, Hall 10 / Booth G05

Technologies for Life Sciences



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FRAUNHOFER FIT

Fraunhofer FITs Life Science Informatics research department develops new approaches to produce highly specific information on diseases and individual patients. We develop novel components, like fluidic microsystems to study cells and molecules, smart scanning microscopes and software for image analysis and object detection. We test and validate complete applications in cooperation with their users. We use our components to build application-specific systems that provide seamless integration in state-of-the-art network infrastructures and mobile access. Our staff includes biologists, chemists, computer scientists, engineers and physicists.

At Medica we present a technology that will allow faster identification of antibiotic resistances to enable rapid and safe treatment of sepsis patients. In addition, we demonstrate an easy-to-use software for the analysis of large volumes of microscope image data and a lab-on-a-chip system prototype for real-time diagnosis of cardiovascular diseases or cancer, which are used in mobile devices for telemedicine or ambient-assisted-living.

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FRAUNHOFER IAP

The Fraunhofer Institute for Applied Polymer Research IAP in Potsdam-Golm conducts research and development on the full spectrum of polymer applications. At the Medica we will present current developments in the area of ophthalmologic implants, particularly concerning the artificial cornea.

Dr. Joachim Storsberg, the head of our Department of Functional Polymers for Medical Technology is very well known in this field and he was recently awarded the "Translational Research Award in Cornea and Ocular Surface Science" at the General Assembly 2013 of the „European Association for Vision and Eye Research" (EVER). The ArtCornea® implant can save the vision of people who are affected by corneal diseases or damages. In 2010, Dr. Joachim Storsberg was also awarded the Josef-von-Fraunhofer-Prize for the previous achievements for ultima ratio patients.

The ArtCornea® implant has been successfully tested in laboratory and animal studies. It coalesces well with the natural cornea transplant and is suitable as a simple replacement for patients who would tolerate a donor cornea. It is easily implantable and does not cause critical immune responses. The first clinical trials will commence soon.

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FRAUNHOFER IIS

The Fraunhofer Institute for Integrated Circuits IIS is the largest institute of the renowned Fraunhofer Gesellschaft. Carrying out purpose-driven, results-oriented research, Fraunhofer IIS scientists are valued partners of manufacturers, service providers and public institutions. Always working with specific requirements in mind, Fraunhofer IIS develops tailored, forward looking solutions, which are transformed into products in collaboration with our respective clients.

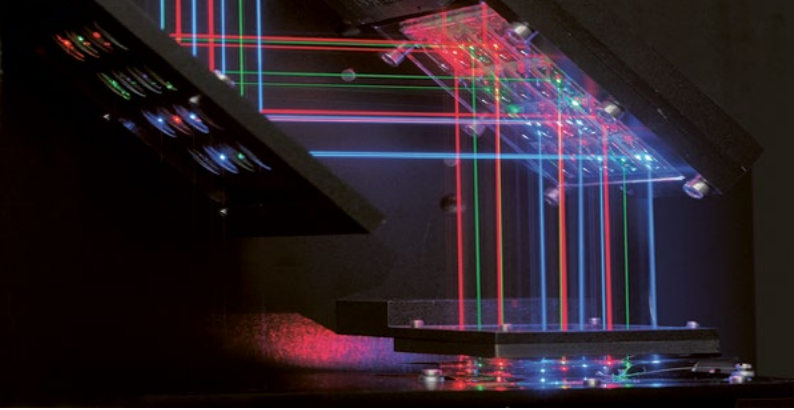
The department Image Processing and Medical Engineering focuses its work on the following areas:

- Endoscopy
- Microscopy
- Radiology
- Image Analysis
- Sensor Technology
- Biosignal Processing
- Motion Analysis
- Medical Data Communication
- Regulatory Affairs

The Fraunhofer IIS supports you as a development partner from conception through the testing of components and prototypes through to complete system solutions.

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FRAUNHOFER ILT

The Fraunhofer Institute for Laser Technology ILT develops novel concepts and components for diagnostic and therapeutic laser systems. One focus is the development of compact sensor devices for parallelized multispectral in-vitro diagnostics based on fluorescence.

At MEDICA, Fraunhofer ILT will be presenting a single particle sorter, which combines parallelized sensor technology with optically induced sorting to enable bacteria separation from blood samples. This makes it possible to rapidly test for antibiotic resistance in combination with bacterial growth analysis.

For laser microsurgery and dermatology Fraunhofer ILT develops novel scanning handpieces, which will be presented at MEDICA too. In contrast to the state of the art, these handpieces have an integrated scan engine, which allows fast application of two-dimensional irradiation patterns of arbitrary shape in dermatology.

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FRAUNHOFER IPA

PROJECT GROUP FOR AUTOMATION IN MEDICINE AND BIOTECHNOLOGY PAMB

Fraunhofer PAMB is doing research in the field of automation in medicine and biotechnology. The group offers R&D services to customers from both academia and industry. At our booth we present our latest developments for different medical disciplines. Our real-time multispectral imaging systems help the surgeon to identify different kind of tissue via color information in a microscope or endoscope image. Our multi-degree-of-freedom instrument prototype for minimally invasive surgery demonstrates the power of hydraulic drives in small and lightweight instrument systems. In combination with our new input devices high dexterity hand-held instruments become possible – and usable.

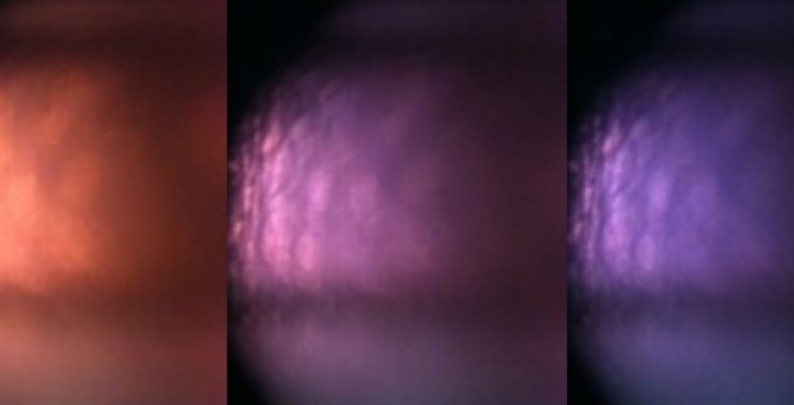
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FRAUNHOFER IZI

BRANCH BIOANALYTICS AND BIOPROCESSES

The Fraunhofer IZI-BB, Bioanalytics and Bioprocesses, offers long-standing expertise in molecular bioanalytics, biosensorics, cellular biotechnology and nanobiotechnology as well as cell-free protein synthesis. As exhibits, autonomous biosensing readout systems as point of need versions are presented. All technologies can be adapted to specific application areas whereas also services and projects around these topics can be offered.

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FURTHER FRAUNHOFER TRADE FAIR APPEARANCES

FOKUS	hall 15/D55
HHI	hall 15/G42
IBMT	hall 07a/B09
IPMS	hall 03/E74A
IZI-BB	hall 03/G52
ILT	hall 08a/F34

Visit us at MEDICA
Hall 10, booth G05

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