



Fraunhofer

MEDICA/COMPAMED NOVEMBER 18-21, 2019

TOMORROW'S HEALTHCARE

**70 YEARS
OF FUTURE**
#WHATSNEXT

TOMORROW'S HEALTHCARE

MEDICA
HALL 10, BOOTH G05

MEDICA/COMPAMED NOVEMBER 18-21, 2019

With 72 institutes in Germany and 70 years' experience in application-oriented research, the Fraunhofer-Gesellschaft stands for innovation and trailblazing solutions in science and industry.

At the Medica/Compamed 2019, this expertise will be impressively demonstrated at the joint Fraunhofer booths in **Hall 10, Booth G05** and **Hall 8a Booth P13**.

Nine Fraunhofer Research Institutions will present a broad spectrum of research projects and findings in the field of life science and medical technology. The topics covered include microoptical systems for multi-spectral measurements and imaging, printed components for Lab-on-a-Chip systems, adhesive and surface coatings applications, optical biosensors and sensor-based assessment systems, 3-D printed implants, fast diagnoses through automated analysis, artificial intelligence (AI) based automation technologies, minimally-invasive diagnostics, mobile based imaging processing and mobile apps for health prevention. This is just a sample of the life and medical science expertise within the Fraunhofer-Gesellschaft, and underlines the close relationship between industry and applied research.

*Fraunhofer researchers are waiting to talk to you personally.
We look forward to welcoming you!*

Fraunhofer Institute for Applied Information Technology FIT

For about 30 years now Fraunhofer FIT has been conducting R&D on user-friendly smart solutions that blend seamlessly in business processes. Our researchers work in interdisciplinary teams and combine insights from information technology with questions from other areas of life. We focus on new approaches to produce highly specific information on diseases and individual patients. Furthermore, we develop innovative components such as smart scanning microscopes or software for image analysis and object detection. All applications are validated in close cooperation with their users. www.fit.fraunhofer.de

Fraunhofer Research Institution for Additive Manufacturing Technologies IAPT

The Fraunhofer IAPT is one of the leading research institutes in the field of additive manufacturing. Our objective is to scale up additive processes and technologies and facilitate their transfer to medical industry. We work closely with leading hospitals and clinics worldwide in order to improve the medical workflow. Along the chain we focus on 3-D-printed products in metal and polymers as well as the implementation of artificial intelligence to improve patient-specific care. www.iapt.fraunhofer.de

Fraunhofer Institute for Biomedical Engineering IBMT

Since its foundation in 1987 the Fraunhofer IBMT has worked primarily as a technology developer and device manufacturer for customers from all over the world. As a founding member of the

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Life Sciences Group of the Fraunhofer-Gesellschaft, IBMT cooperates closely with its industrial, public and private customers in (bio)medical engineering, theranostics, biotechnology, implants, stem cell research and laboratory technology. We will present minimally-invasive diagnostics for improved biopsies and a portable system for EEG/EMG acquisition. www.ibmt.fraunhofer.de

Fraunhofer Institute for Computer Graphics Research IGD

Fraunhofer IGD uses methods and processes for machine learning and artificial intelligence to analyze and evaluate vital signs and disease-related patient data. The visual solution Health@Hand combines all digitally available data, including the patient's real-time vitals, into a graphic overview. As a digital control station, the system provides hospital staff with all relevant information with just a click and reprocesses it visually. A new sensor-based assessment system for mental stress and strain in the workplace will also be presented. <https://fh-igd.de/individual-health>

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

The Fraunhofer IPA is specialized in automation in medicine and biotechnology. The focus is on the digitization of clinical processes and the transfer of new technologies into the clinical practice. This includes for example a 5G testing facility in the clinic and a fully equipped hybrid operating theater. At MEDICA Fraunhofer IPA presents an AI-based robot control for the navigation of an endovascular catheter and a non-invasive, contactless sensor

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for breathing control of neonates and adults.
www.pamb.ipa.fraunhofer.de

Fraunhofer Center for Assistive Information and Communication Solutions – AICOS

Fraunhofer AICOS presents its research on medical devices which set themselves apart for their accessibility in terms of ease of use and cost, while demonstrating a highly competitive performance, including a device for mobile-based risk assessment of diabetic retinopathy by image processing, a mobile dermatology device for automatic skin image capture and automatic risk assessment of skin lesions and a system for fall risk screening and falls prevention. www.fraunhofer.pt

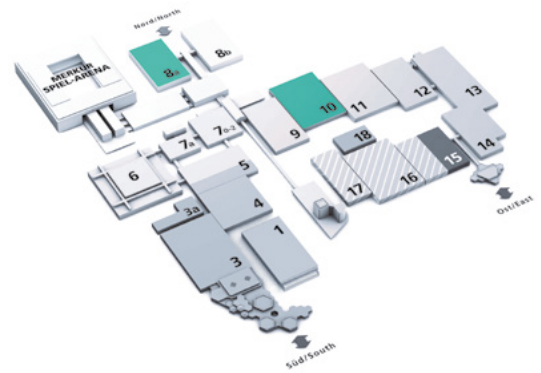
InnoHealth China

A current campaign of the BMBF-initiative Research in Germany aims to connect the Chinese and the German healthcare research sectors, also involving small and medium-sized enterprises (SME) and start-ups. www.research-in-germany.org/innohealth.html

Thericon

Thericon is a start-up founded in 2019 that developed the first multiparametric endoscopy cameras. This market innovation captures and displays to the surgeons in real-time all-important information to successfully detect and resect cancer.
www.thericon.com

COMPAMED
HALL 8A, BOOTH P13



Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM

From material to reliable application with functional materials, adhesives, surfaces and processing technologies for medical devices. Next generation of additive manufacturing, technologies for tailored cell adhesion, anti-infective implant concepts, promotion of osseointegration and medical adhesives.

www.ifam.fraunhofer.de

Fraunhofer Institute for Applied Optics and Precision Engineering IOF

The Fraunhofer IOF in Jena conducts applied research in the field of photonics and develops innovative optical systems. Inkjet-printed functionalities for flexible and low-cost Lab-on-a-Chip systems and inkjet-printed 3-D micro- and macrooptical components and systems are presented. www.iof.fraunhofer.de

Fraunhofer Project Hub for Microelectronic and Optical Systems for Biomedicine MEOS

The Project Hub MEOS carries out interdisciplinary R&D in key technologies such as microelectronics, optics and photonics, and life sciences with respect to new bio-medical applications. At COMPAMED, the following R&D results are shown: microscopy modules for structured illumination in biophotonics, MEMS and micro-optics-based modules for acquiring and processing images for biomedical applications, optical and chemical detection and analysis of biomarkers. www.meos.fraunhofer.de

FURTHER FRAUNHOFER TRADE FAIR APPEARANCES

Fraunhofer Institute for Laser Technology ILT

Hall 8a/F34

Fraunhofer Institute for Electronic Nano Systems ENAS

Hall 8a/H23

Fraunhofer Institute for Reliability and Micro-integration IZM

Hall 8a/H23

Fraunhofer Institute for Microengineering and Microsystems IMM

Hall 8a/K14

Fraunhofer Research Institution for Microsystems and Solid State Technologies EMFT

Hall 8a/J25

Fraunhofer Institute for Ceramic Technologies and Systems IKTS

Hall 8a/N39

Fraunhofer Institute for Microelectronic Circuits and Systems IMS

Hall 8a/F19

Fraunhofer Institute for Cell Therapy and Immunology, Branch Bioanalytics and Bioprocesses IZI-BB

Hall 3/G52

Join the Fraunhofer Medtechtalks – free admission!
Monday – Wednesday 4:30–5:00 p.m. at the
Fraunhofer Booth Hall 10/G05

Editorial Notes

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