

**Fraunhofer Institute for Biomedical Engineering IBMT**  
[www.ibmt.fraunhofer.de](http://www.ibmt.fraunhofer.de)

**Fraunhofer Institute for  
Experimental Software Engineering IESE**  
[www.iese.fraunhofer.de](http://www.iese.fraunhofer.de)

**Fraunhofer Institute for  
Electron Beam and Plasma Technology FEP**  
[www.fep.fraunhofer.de](http://www.fep.fraunhofer.de)

**Fraunhofer Institute for Manufacturing Engineering and  
Applied Materials Research IFAM**  
[www.ifam.fraunhofer.de](http://www.ifam.fraunhofer.de)

**Fraunhofer Institute for  
Manufacturing Engineering and Automation IPA**  
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**We are looking forward to seeing you!**

At present, the Fraunhofer-Gesellschaft maintains more than 80 research units in Germany, including 59 Fraunhofer Institutes. The majority of the 17,000 staff are qualified scientists and engineers, who work with an annual research budget of €1.5 billion. Of this sum, more than €1.3 billion is generated through contract research. Two thirds of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. Only one third is contributed by the German government in the form of base funding, enabling the institutes to work ahead on solutions to problems that will not become acutely relevant to industry and society until five or ten years from now.

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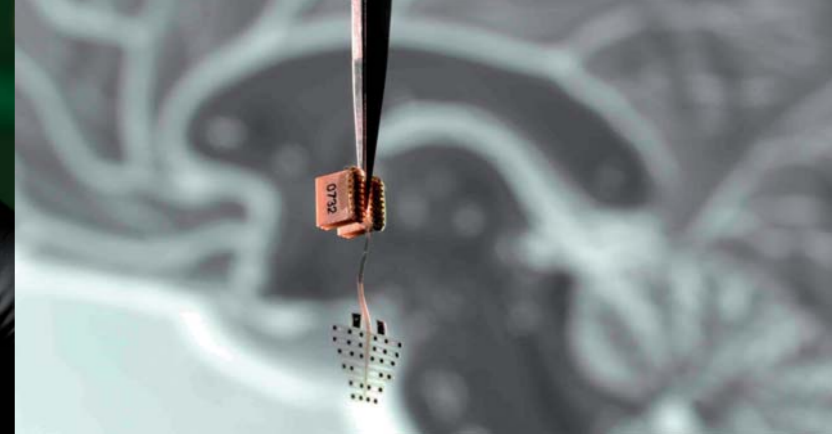
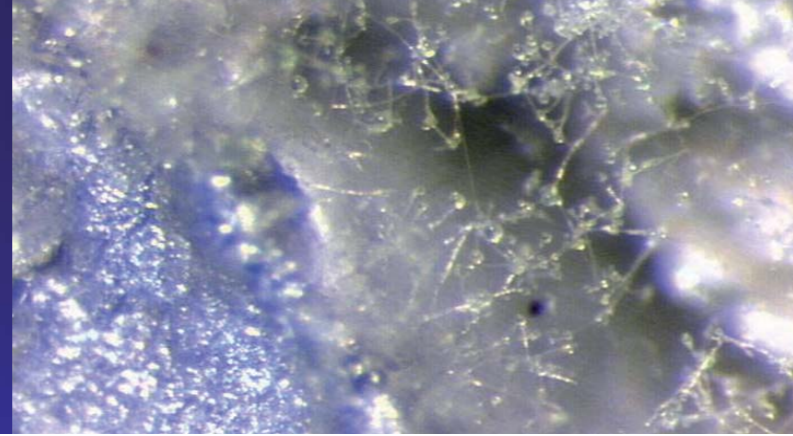
STUTTGART March 23 – 25, MEDTEC 2010,

TECHNOLOGIES AND SERVICES FOR

**LIFE SCIENCES**

HALL 6, STAND 1522





## TAKING CARE

In tomorrow's healthcare system, people's well-being and ability to perform will be at the centre of attention, yet at the same time medical treatment must remain financially affordable. The goal of current research in the health sector is to produce innovations which make prevention, diagnosis and therapy more reliable, faster and cheaper. Fraunhofer Institutes have taken up the challenge and are conducting important development work in the field of medical technology. The Life Sciences are delivering new measurement principles. Materials research and microelectronics are enabling biological and technical systems to be combined and sophisticated production technology is ensuring that the systems are manufactured reliably and cost efficiently.

Find out how Fraunhofer developments are revolutionizing modern medicine. From patient friendly mini-sensors and standardized networks to user-adapted platforms – the developments of the Fraunhofer Institutes focus on people and their individual needs.

## OUR TECHNOLOGIES AND SERVICE PROFILE

### Functional Materials & Surfaces

- Bio-active/bio-functional, biomimetic, and microstructured surfaces
- Antimicrobial polymers, adhesives and coatings
- Biocompatible materials

### Miniaturisation

- Microsystems technologies
- Microimplants & microsensors
- Micro adhesive bonding
- Microsystem based cell banking
- Biosensor and biochip packaging

### Biomedical Technology

- Confusion-proof cryostorage
- Ultrasound development platform for clinical diagnostics, the rapy control and navigation
- Motion detection and motion control
- Prosthetics and orthetics
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### Production Technology

- Adhesive bonding
- Rapid prototyping with medical materials
- Simulation and optimisation of production processes
- Modular process automation laboratory
- Rapid conception and evaluation of automated manufacturing and laboratory processes
- Comprehensive module and technology library for liquid handling, micro-dispensing, quality control, handling and micro-assembling
- Parallel comparison and qualification of rival technologies for process development
- Neutral product and process interface techniques
- Injection moulding of medical parts and implants
- Micro joining electron beam welding of medical alloy materials
- Gentle sterilization using accelerated electrons for inline processing
- Electron beam crosslinking of (bio)polymers

### Clean Quality Manufacturing

- Cleanliness and cleaning validation
- Certification of equipment and devices
- Development of cleaning technologies

### Integrated product development for

- Orthopedics
- Minimally invasive procedures
- Cryobiotechnology
- Additive manufactured prosthesis

### We offer

- Information, market and patent research
- Feasibility studies, market and trend analyses, concept evaluation
- Application, financing & coordination of R&D projects
- Consulting with regard to technologies, project funding and information services

### Your advantages

- Technology, information and consulting services for biomedicine and medical technology
- Complete medical development supply chain
- Broad spectrum of knowledge
- Access to advanced technologies and methods in training and co-operation
- Access to European R&D and European Funding
- Collaboration between institutes with different specialist expertise