Research and development for human health is one focus of the Fraunhofer-Gesellschaft, the largest research organization for applied science in Europe. We combine a broad range of disciplines to tackle challenges – from technology to facilitate drug development, disease research and treatment to ensuring water safety. Innovative developments in the life sciences are strongly driven by the interaction of different areas of expertise including biology, chemistry, biochemistry, biotechnology, medicine, pharmacology, ecology, production technology, lab technology, and surface engineering. Examples of specific projects include cell cultivation in a hanging droplet, bioreactors and 3D incubation systems for *in vitro* human tissue culture, production of scaffolds with a 3D printer, as well as water purification without adding chemicals. Interdisciplinary approaches allow us to find solutions for complex projects tailored to a broad spectrum of needs for the lab as well as applied research.

Come and see us in Hall 20, Booth B02
THE FRAUNHOFER EXHIBITORS

Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB
Translational Center Regenerative Therapies for Oncology and Musculoskeletal Diseases, Würzburg branch
www.igb.fraunhofer.de

Fraunhofer Institute for Surface Engineering and Thin Films IST
www.ist.fraunhofer.de

Fraunhofer Institute for Production Technology IPT
www.ipt.fraunhofer.de

Fraunhofer Group for Life Sciences
www.lifesciences.fraunhofer.de

THE FRAUNHOFER EXHIBITS

Hall 20, Booth B02

CELL CULTURE

Fraunhofer IST
1 Lab in a bag
2 Cell cultivation in a hanging droplet

Fraunhofer IGB
14 3D tissue models as alternative to animal testing
15 Customized bioreactors and incubator systems for in vitro culture of human tissue

ENVIRONMENTAL PROTECTION

Fraunhofer IST
10 Water purification without adding chemicals

MATERIALS SCIENCE AND SURFACE FUNCTIONALIZATION

Fraunhofer IST
2 Plasma-Jet to coat 3D objects, e.g. scaffolds
3 Functionalized consumables
4 Atmospheric pressure plasma processes
5 Bioscaffold: 3D printer, e.g. for bone replacement
9 Tribological coatings

Fraunhofer IPT
13 Nano- and micro-structured surfaces: Predifferentiated stem cells in large quantities

OTHER THEMES AND EXHIBITS

Fraunhofer IST
11 Applied research for companies in the life sciences

OVERVIEW

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