



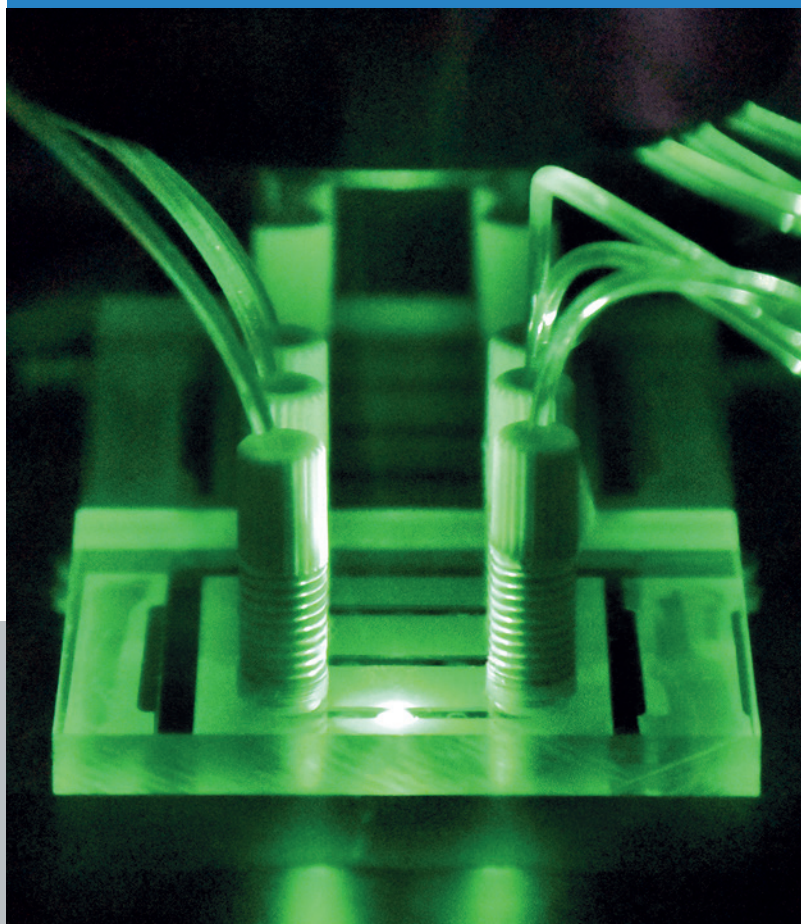
CONTACT

Fraunhofer Institute for Cell Therapy and Immunology,
Branch Bioanalytics and Bioprocesses IZI-BB
Am Mühlenberg 13
14476 Potsdam | Germany

Dr. Katja Uhlig
Microsystems for in-vitro cell models
Phone +49 331 58187-312
katja.uhlig@izi-bb.fraunhofer.de

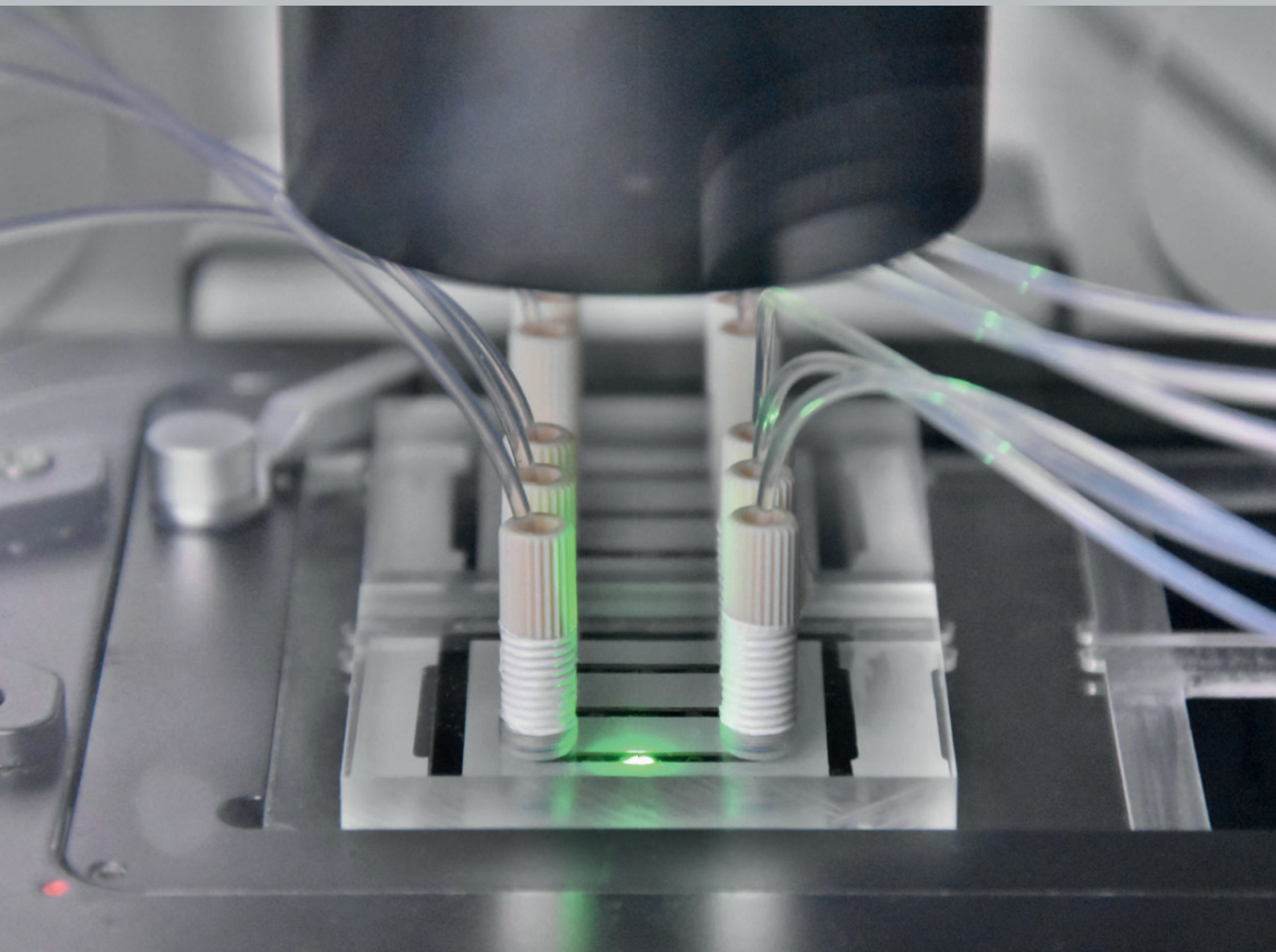
www.izi-bb.fraunhofer.de

IN-VITRO CELL MODELS & SYSTEMS



**NON-INVASIVE OPTICAL
REAL-TIME ANALYSIS**

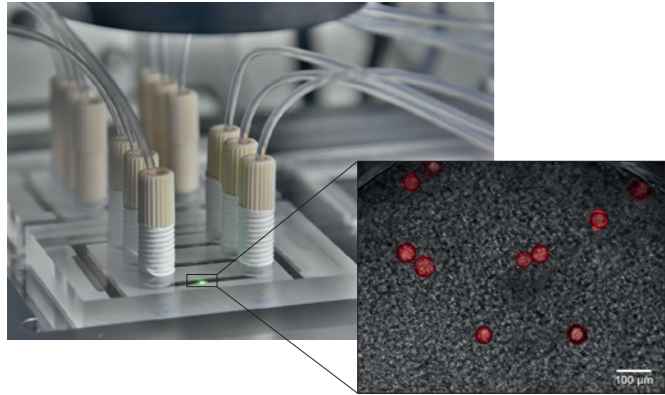
**AUTOMATION OF
MICROFLUIDIC SYSTEMS**



ORGAN-ON-CHIP SYSTEMS

Development of our automated reactors to incorporate sophisticated cell models for your needs.

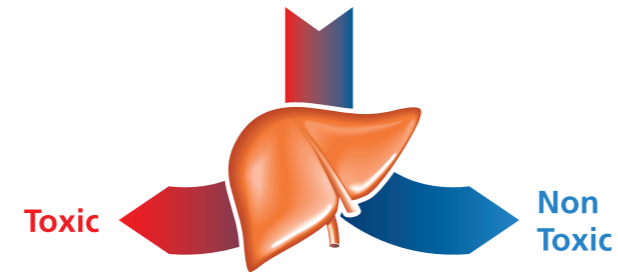
- 3D cell systems
 - Cell tissue
 - Spheroids
 - Organoids



DRUG TESTING

Screening of your test substances in our liver reactors

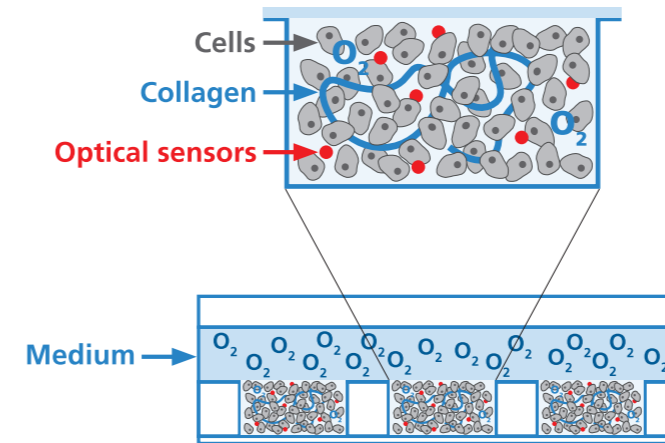
- Repeated exposure (repeated dose)
- Long-term exposure (up to 30 days)
- 12 Parallel measurements
- Investigation of mode of action



SENSOR DEVELOPMENT

Application and development of optical sensors for your cell culture applications

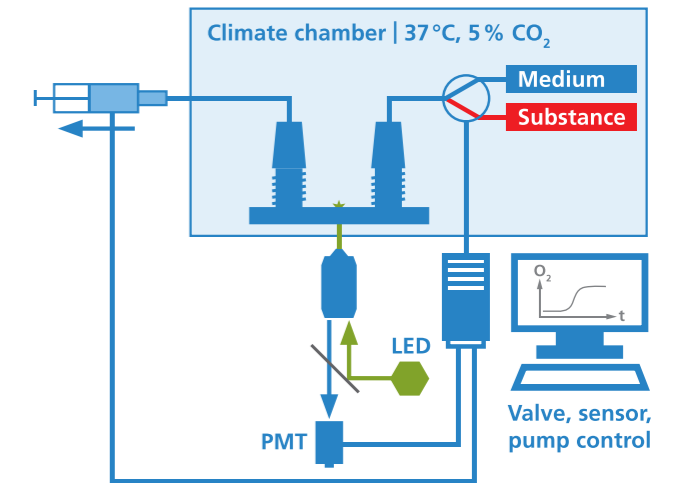
- Real-time measurements of oxygen, pH and glucose, lactate
- Highest sensitivity with high temporal resolution



MICROFLUIDIC PLATFORMS

Concepts and production of prototypes for individual applications

- Adaptation of (micro-)fluidics to user requirements by using Rapid Prototyping
- Adjustment of the system to your laboratory requirements
- Scalable throughput through automation



APPLICATIONS

- Patient-specific screening of therapies
- Disease models for drug tests
- Basic research

- Screening of chemical substances (REACH)
- Drug screening

- Monitoring of cell vitality and nutrient supply
- Kinetic information on cell-drug interactions

- Fast development of systems for proof-of-concept investigations