

(20/07/2018)

Participants Catalogue

International Matchmaking with company visits
Jena, Thuringen/D, 29th – 30th October 2018

Focused on „Optics & Life Sciences“

- **Micro/Nanofluidics**
- **Lab-on-a-chip, Organ-on-a chip**
- **Optical components and systems**
- **Point-of-Care Testing/Diagnostics**
- **Analytical systems and bio devices**
- **Photonic sensors/measuring**

Supported by:

- EEN Thuringen
- EEN Netherlands
- MinacNED cluster
- medways e.V. Jena
- OptoNet e.V.
- JenaWirtschaft

Programme

In collaboration with the Dutch *MinacNed* cluster and the German *medways* cluster the Enterprise Europe Network partners in the Netherlands and Thuringen/Germany, are offering a matchmaking event with on-site company visits in the **Optic and Life Science sector**.

About 10-15 Dutch companies active in this thematic will have the opportunity to visit selected innovative companies and R&D institutions in Jena/D which will open their labs and demonstrate their R&D projects and successful results.

Objectives: Cooperation with companies and R&D organisations for research projects, technical and business agreements.

Individual arrival: Sunday 28th October 2018 late afternoon

Hotel "Steigenberger Esplanade" in Jena: group reservation (with booking code)

Monday 29th October 2018

09:00-10:30	<p>Welcome and introduction (at Fraunhofer IOFJena)</p> <ul style="list-style-type: none"> - MinacNed cluster - medways e.V. - OptoNet e.V. - Jena Wirtschaft <p>Visit of Fraunhofer IOF with Fibre Technology Centre Presentation of the Project Centre „Biomedical optical systems“ (Erfurt)</p>
10:45-12:15	Visit of Leibniz-Institute of Photonic Technology (IPHT) Jena
12:30-15:30	<p>Company visit of Jenoptik AG (Segment Optic & Life Science)</p> <p>Matchmaking: bilateral meetings based on catalogue selection (with lunch)</p>
16:00- 18:00	Company visit of Analytik Jena AG
19:30	Planetarium Jena: "Queens Heaven"
21:00	<p>Social dinner/Networking in der "Noll"</p> <p><i>With Tour de table, pitching 3' each (about 40 persons)</i></p>

Tuesday 30th October 2018

- 08:30-10:30 Company visit: **Microfluidic-Chip-Shop** (tbc)
- 11:00-12:30 Company visit: **Abbott/former Alere** (tbc)
- 13:00-15:30 **Mini Forum** in the Bioinstruments Centre (BIZ) at Beutenberg Campus Jena with:
- Blink GmbH
 - Dynamic24 GmbH
 - FBGS
 - Infectognostics (tbc)
 - Oncgnostics (tbc)
- 15:30 End / Option for individual meetings with existing clients
- OR: Just stay a day longer to enjoy our public holiday in Thuringen on 31st October (Reformation Day)

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www.fhi.nl/lt, www.minacned.nl

EEN NL:

Enterprise Europe Network, Netherlands Chamber of Commerce

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www.enterpriseeuropenetwork.nl | https://business.gov.nl/ | www.kvk.nl

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Table of German companies and institutes

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Abbott/Alere Technologies GmbH, Jena

<https://alere-technologies.com/>

Alere Technologies GmbH is developing novel point of care diagnostic platforms that move diagnostic testing from the laboratory to the patient. We are committed to establish a testing platform that provides equivalent if not better performance at the point of care if compared to a laboratory test.

In addition, we provide unique microarray-based platforms enabling the development of powerful and competitive multiparameter tests for professional lab diagnostics.

Develops and manufactures novel diagnostic tests that are easy to use and can be carried out in the immediate vicinity of the patients, but also in laboratory settings. The tests developed at the Jena site are primarily designed for patient-oriented and mobile use. The focus is on test methods to identify HIV and tuberculosis.etc.

Analytik Jena AG, Jena

(an Endress & Hauser company)

<https://www.analytik-jena.de/en/404.html>

Analytik Jena is a provider of instruments and products in the areas of analytical measuring technology and life science. Its portfolio includes the most modern analytical technology and complete systems for bioanalytical applications in the life science area.

Comprehensive service offerings as well as device-specific consumables and disposables, such as reagents or plastic articles, complete the Group's extensive range of products.

Provider of instruments and products in the fields of analytical measuring technology, life science and optoelectronics. Their portfolio includes advanced analysis technology, complete systems for bioanalytical applications in the life science sector and optical high-end consumer products.

BLINK GmbH, Jena

www.blink-dx.com

BLINK IS ENABLING DIAGNOSTICS.

By defining a universal processing and detection format we aim to make the most advanced technologies available to the diagnostics community. The applications are limitless as is the diagnostics community's ability to innovate.

The technology is based on photonic detection of single molecular interaction events. This method provides for the digital detection and quantification of individual analyte molecules in a sample and ensures a substantial dynamic quantification range. The inherent multiplexing capabilities of this technology allow for the parallel detection and differentiation of multiple analytes in a sample. The technology is designed for processing sample sizes from a few μL up to large samples > 10mL and compatible with all common sample matrices.

The BLINK Box is a universal analysis system bringing Random Access to the point of care. It has the capacity to combine different diagnostic concepts, new biomarkers and analytical processes together into one single, coherent testing solution. The system is designed to receive and process from standardized sample collection tools.

The new BLINK format will dramatically reduce cost and improve test performance. Our product architecture will provide the operator with the ability to create individual test menus for each sample. For the first time test random access is being brought to the point of care.

For developers of novel diagnostic tests, BLINK will soon provide assay development and technology evaluation kits.

Carl Zeiss Meditec AG, Jena

<https://www.zeiss.co.uk/meditec/home.html>

The Medical Technology activities of ZEISS are bundled under the umbrella of the TecDAX-listed company Carl Zeiss Meditec AG.

The main activities of Carl Zeiss Meditec AG are located in the field of Ophthalmology and Microsurgery.

In Ophthalmology, the Company offers mainly products and solutions for the diagnosis and treatment of eye diseases, as well as systems and consumables for cataract, retinal and refractive surgery.

In Microsurgery the Carl Zeiss Meditec Group provides visualization solutions for minimally invasive surgical treatments.

Cetoni GmbH, Korbußen

www.cetoni.de

Develops and manufactures high-quality products for automation and microsystems technology. In addition to custom and special assembly, the main activity lies in the perfection of its product range for modular actuation and control of fluids.

Dynamic42 GmbH, Jena (Start-up)

www.dynamic42.com

Dynamic42 GmbH has developed a human, three-dimensional physiological liver model in a biochip. We are a contract research organization and we are testing new drugs as well as novel dosage forms of drugs (i.e. nanoparticle, polyplexes,...). In addition, we are developing customized biochip-based assays and organ models for further studies.

To date, drugs are tested in animal experiments before entering clinical studies in men. However, this results in dramatic insufficiency of the transfer of achieved results from animal to men as well as this produces high costs (primarily by withdrawal of drugs in clinical studies). Our system increases the explanatory power of the obtained data as well as the drug safety by simultaneous time and cost reduction.

Our physiological liver model in a biochip stands out due to the following USPs:

- human, anatomically correct cellular arrangement
- integrated immune cells
- sensors for online-analysis of vitality and barrier function
- certified chipmaterial for medical devices

Seeking: Private as well as public companies of the pharmaceutical, biotechnological and Life Science industry: Pharma enterprises, SMEs in the Nano-, Biotech-, Life Science and Medical sectors, research groups, chemicals developing and producing companies

FBGS Technologies GmbH, Jena

www.fbgs.com

FBGS develops, manufactures and sells high quality and highly sensitive fiber optic sensors and measurement systems based on Fiber Bragg grating technology (FBG) for complex applications across many industries. FBGS sensors measure strain, pressure, temperature, pressure, force, shape among other measurands. FBGS's core products are optical fiber sensors based on Fiber Bragg Gratings (FBG), which are produced with draw tower grating (DTG®) technology and with femtosecond grating (FSG®) technology. In addition, FBGS sells its own measurement systems for sensor evaluation and develops full FBG sensing solution for selected markets.

With the sensors, many measuring points can be combined into one fiber with low weight, high measurement accuracy, corrosion resistance, high durability regardless of electrical and magnetic radiation. I

In cooperation with the Leibniz Institute of Photonic Technology e.V., Jena (IPHT), FBGS has developed a highly automated production process that enables the fabrication of FBGs during the optical fiber drawing process. Furthermore FBGS developed during the last years a complementary fabrication technology for sensor inscription. These two production processes are worldwide unique and enable the cost-effective production of high-quality and highly sensitive fiber.

Seeking for new customers in the following markets: Med-Tech (e.g. intelligent catheter), Oil&Gas (increasing efficiency and safety monitoring), Telecommunications (monitoring of optical networks), Industry (monitoring of industrial processes), Composites (monitoring of composite structures and damages), etc.

Fluigent Deutschland GmbH, Jena

www.fluigent.com

Fluigent develops, manufactures, and supports innovative fluid handling solutions for a variety of rapidly growing applications where precise fluid control is important. We are the global leader in providing innovative fluid handling solutions for microfluidics, from compact microfluidic controllers for droplet generation to turnkey organ on a chip platforms. Since 2006 we have delivered thousands of Fluigent products, including the pressure pump Flow EZ™, the MFCS™-EZ (Microfluidic Flow Control System), the sensors FRP (Flow-Rate Platform) and the ESS™ (Easy Switch Solutions™) to hundreds of customers worldwide, with two subsidiaries and a strong network of distributors.

Fluigent was the first company to introduce pressure pumps to the microfluidic research market, as opposed to conventional syringe pumps. Today, Fluigent is the only company to introduce a full pressure and flow-rate control solution designed for coupled multi-channel configurations. Our product design and manufacturing activities far exceed simple assembly activities, we master all algorithmic, mechanic, electronic, pneumatic and microfluidic chains. We provide end-user instruments for direct control but also industrial OEM solutions for full integration into complex equipment. Our proprietary technologies enable us to finely tailor your product design to your specific need without relying on fixed pre-packaged external solutions.

fzmb GmbH, Bad Langensalza

http://www.fzmb.de/index_en.html

The FZMB – Research Centre for Medical technology and biotechnology - is a private commercially-related research institute which operates as a link between academic research and commercial application-oriented research and development.

The FZMB has an interdisciplinary set-up and specialises in working on complex issues from the application and technology fields:

- biotechnology
- cell biology
- IVD Development
- Bio instruments and device development
- food testing
- animal clinic/veterinary services

Fraunhofer IOF, Jena

www.iof.fraunhofer.de

«Green Photonics» the sustainable use of light – Expertise in optical system technology

- Micro and Nano-structuring,
- Optics and Photonics Materials,
- Coating and Surface Functionalization,
- Diamond-Based Ultra-Precision Processing,
- Materials Processing Using Ultrashort Laser Pulses,
- Micro-Assembly and System Integration,
- Laser Development and Non-Linear Optics,
- Measurement Methods and Characterization

JENOPTIK AG, Jena

<https://www.jenoptik.com/about-jenoptik/company-profile/optics-life-science-segment>

Optical and photonic technologies are the very basis of our globally operating technology group. Jenoptik has about 3,600 employees and generated revenue of approx. 748 million euros in 2017. With 37 subsidiaries (23 of them abroad) Jenoptik is represented in over 80 countries worldwide with biggest growth potential in the Americas and Asia.

Jenoptik is active in the three segments: **Optics & Life Science**, Mobility & Defense, Civil Systems.

In its **Healthcare & Industry unit** Jenoptik develops specific system and application solutions with customers worldwide in the healthcare sector and industry. The focus is on medical technology and life science, laser, automotive and LED lighting applications.

The product portfolio includes semiconductor chips, optoelectronics, laser technology, polymer optics, electronics and software. Based on its core competences from laser and LED based beam sources, optical components and modules to sensors, digital imaging and system integration, Jenoptik is a leader in the development of OEM system solutions and products for the life science industry. These are, amongst others, highly reliable analysis and treatment systems for research, clinical applications, and patient self-diagnosis, which comply with international quality standards and strict approval criteria. Examples are next-generation DNA analysis, LASIK, and blood glucose measurements.

For industrial applications, Jenoptik offers high-performance optoelectronic components and modules as well as integrated solutions which if required intelligently combine optics, laser technology, sensors and digital imaging. In addition to development of complex components for head-up displays, innovative lenses for driver assistance systems and polymer optics for machine vision or augmented reality applications, the division also produces powerful, energy-efficient industrial LED lighting. In the area of industrial lasers for laser material processing, Jenoptik is active in the entire laser value creation chain.

Leibniz Institute of Photonic Technology Jena (IPHT)

www.leibniz-ipht.de

Photonics for Life - From Ideas to Instruments

In keeping with the motto "Photonics for Life", scientists at the **Leibniz Institute of Photonic Technology** (Leibniz IPHT) conduct research into photonic and biophotonic solutions for issues pertaining to the fields of medicine, health, the environment and safety.

The Leibniz IPHT (with 330 people) works at the interface of three focal points of research: biophotonics, fibre optics and photonic detection. The research activities aim to explore new dimensions in (bio)photonic solutions in terms of resolution, sensitivity, specificity, speed, accuracy and automation. Thereby, the institute provides tailor-made analytical and diagnostic solutions for partners from medicine and the life sciences. A unique research focus is on optical healthcare technologies, which for example allow for rapid and accurate light-based diagnostics of infections or age and lifestyle-associated diseases.

The findings obtained from research are translated into application-oriented processes, instrumental concepts and laboratory model setups. Their technical realization is based on intensive research in the fields of micro- & nanotechnology, fiber technology, quantum technology and systems technology. The existing technological core competencies of our co-workers are combined with an excellent infrastructure. Cleanroom facilities, an in-house fiber drawing tower, one of the most modern facilities of its kind in all of Europe as well as an outstanding technical equipment are a unique feature of the Leibniz IPHT and an indispensable requirement to implement the whole process chain in the institute: from fundamental research on optical technologies to their translation into tailor-made system solutions for various areas of life. From Ideas to Instruments.

The institute was founded in 1992 and has been performing top, world-renowned research ever since. On January 1, 2014, Leibniz IPHT became a member of the Leibniz Association, jointly supported by the Free State of Thuringia and the federal government. Leibniz IPHT earns more than half of its annual budget through the successful acquisition of third-party funds, including the European Union, the German Research Foundation (DFG), the federal government, and the Free State of Thuringia.

Microfluidic-Chip-Shop GmbH, Jena

www.microfluidic-chip.shop.com

Development and production from the single-chip to the series production of simple microfluidic-Chips to the complex Lab-on-a-Chip system

Mission at *microfluidic ChipShop* is to shrink the biological and chemical laboratory in order to bring lab-on-a-chip systems into daily laboratory life at a reasonable cost.

Tailor-made solutions & standard products: Our services comprise tailor-made microfluidic systems as well as standard catalogue products. Products are made for applications in the following fields:

- analytical sciences
- biotechnology
- cosmetic
- diagnostics
- drug screening
- chemistry
- environmental monitoring
- food analysis
- medical technology

Production at all scales: *microfluidic ChipShop* offers prototyping as well as production services - from one to millions of chips, from simple microfluidic chips to complex lab-on-a-chip-systems.

scienova GmbH, Jena

www.scienova.com

scienova is a specialist for development, manufacturing and distribution of automation-ready dialysis disposables for lab usage.

Purifications of native proteins, protein renaturation, proteomics, protein expression sample preparation for free hormone determination in the serum, ready for automation. - Easy and safe handling, lower costs per sample.

- Unique patented geometry and vertical membranes
- arranged in the SBS standard format of microplate
- allow for very fast and reproducible dialysis.

Seeking: Life science and pharmaceutical companies, analysis laboratories, research institutions and universities.

Senova GmbH, Weimar

www.senova.de

Senova is an internationally active medium-sized and owner-managed company based in Weimar. Senova is specialized in high-quality immunological rapid tests for the detection of proteins, haptens, nucleic acids, microorganisms and viruses. With its powerful research department, extensive methods for quality assurance and quality management and large production capacity for test kits Senova provides its customers with all the tools available to develop, validate, and produce rapid test products successfully. This product and service portfolio is complemented by a well-developed distribution network in human and veterinary diagnostics by our partner Devidia - Deutsche Vitaldiagnostik.

Senova rapid tests for point-of-care diagnostic are based on the well-established lateral flow technology or innovative 3D immunofiltration. Senova develops new test systems or establishes new tests on existing platforms on behalf of its clients. The team can take advantage of a wide range of tools and methods which have emerged in recent years through intensive technology development and cooperation with research partners.

The company is certified ISO 13 485 and ISO 9001 since 2011 and features a fully certified quality management system.

SmartDyeLivery GmbH, Jena

www.smartdylivery.de

SmartDyeLivery develops and commercializes a universal platform technology based on functionalized nanoparticles that is used to transport an active substance precisely into specific cells and tissues. This fully patented approach allows a systemic administration of highly potent drugs that are released only in the target tissue. As a result, the dosages can be reduced and the spectra of side effects improved. As a first application, the SmartDyeLivery team focuses on the treatment of septic liver failure with the prospect of reducing the extremely high mortality of currently over 90%.

Due to the modular principle, the nanoparticle platform can be utilized for a broad range of future applications in the fields of therapy and diagnostics. The system, therefore, is of special interest for drug developers who want to improve the efficacy of their drugs and avoid unfavorable side effects by means of targeted delivery. In addition, the patented functionalization with specific dyes also enables parallel measurement of organ function and the efficiency of drug delivery in a unique theranostic approach.