

2-DAY TRAINING SEMINAR

APRIL 29 & 30, 2013

LIÈGE - BELGIUM



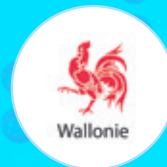
MICROFLUIDICS, FROM CONCEPT TO PRODUCT

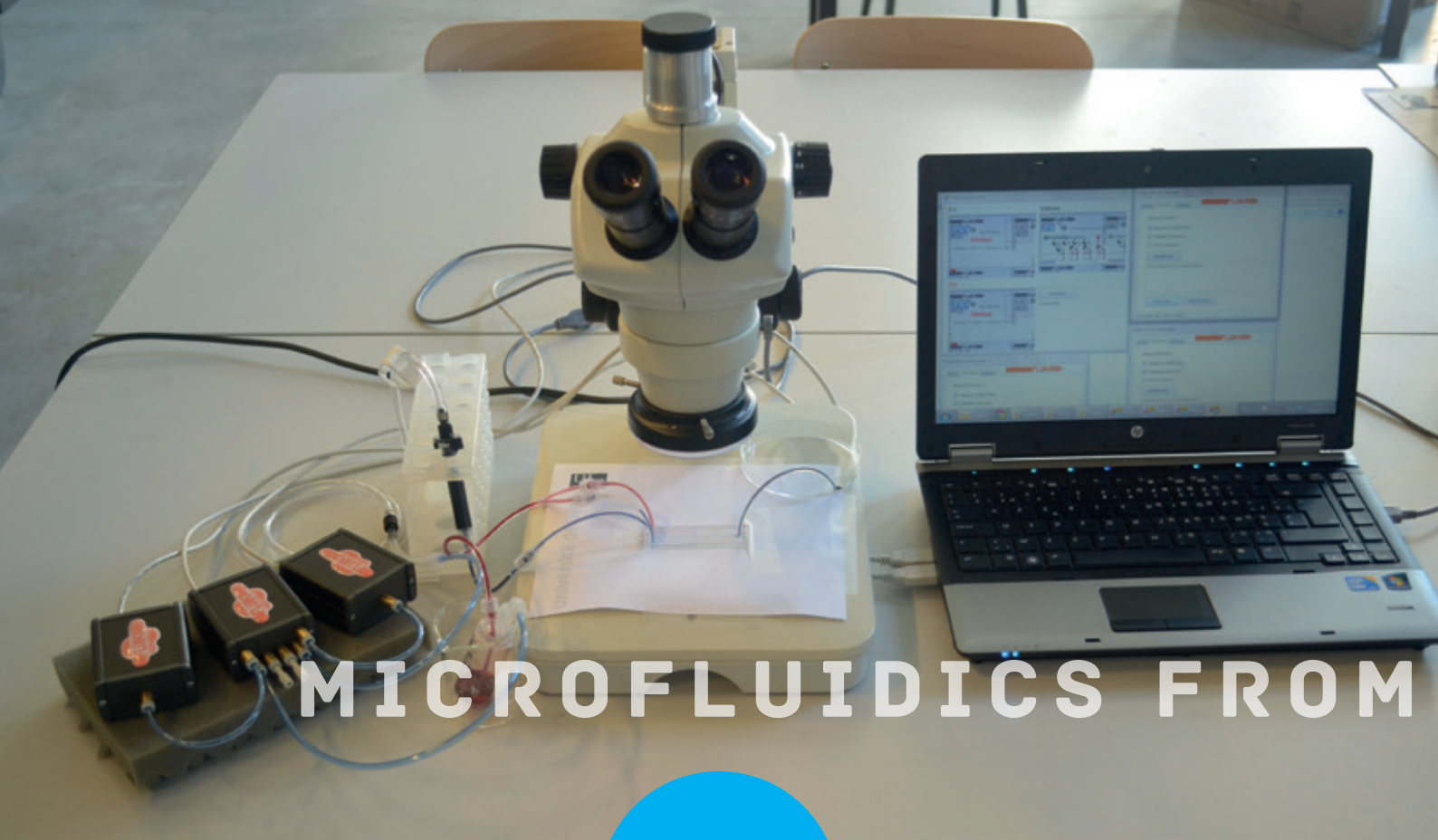
COMING SOON

Three 2-day training seminars about
«Lab-on-a-Chip» design aspects:

- Biosensors (Aachen) •
- Proteines, anti-bodies, markers, breast cancer diagnosis (Maastricht) •
- "Lab-on-a-Chip" applications (Hasselt) •

- COMMERCIALIZATION STRATEGIES
- FABRICATION TECHNOLOGIES
- PRODUCT EXAMPLES





MICROFLUIDICS FROM

LEARNING OBJECTIVES

- Understand the current state of the markets and obstacles in the commercialization process.
- Understand economic aspects in the development for manufacturing of microfluidic devices and systems.
- Learn about mono and multiphase flows in microchannels.
- Learn about design rules and how to choose the best size.
- Understand the process of material selection for a microfluidic device.
- Understand different microfabrication methods for materials such as glass, silicon and polymers for low and high volume production.
- Learn about examples of successful and unsuccessful microfluidic product introductions.

COURSE OUTLINE (2 DAYS)

MONDAY APRIL, 29

AM

- Introduction to microfluidics
- Brief history of microfabrication
- Some thoughts on commercialization
- Case study 1: a device as a system
- Flows at the microscale

PM

- Case study 2: the right size for your sensing application
- Challenges in material selection
- Microfabrication methods for microfluidics
- Back-End processing

TUESDAY APRIL, 30

AM

- Applications of microfluidics
- Product examples
- Design advices
- Conclusions

PM

- Hands-on training workshop on microfluidics

APRIL 29 & 30, 2013

WHO SHOULD ATTEND

The course is suitable for scientists, technicians, engineers but also business developers who would like to get a deeper understanding of the manufacturing technologies for microfluidic devices and the strategies for their commercialization. The course is also of interest for students and professors of universities and high schools.

CONCEPT TO PRODUCT

SPEAKERS

DR HOLGER BECKER



Dr **Holger BECKER** is co-founder and CSO of microfluidic ChipShop GmbH. He obtained physics degrees from the University of Western Australia/Perth and the University of Heidelberg. He started to work on miniaturized systems for chemical analysis during his PhD thesis at Heidelberg University, where he obtained his PhD on miniaturized chemical SAW sensors in 1995. Between 1995 and 1997 he was a Research Associate at Imperial College with Prof. **Andreas MANZ**. In 1998 he joined Jenoptik Mikrotechnik GmbH. Since then, he founded and led several companies in the field of microsystem technologies in medicine and the life sciences. He lead the Industry Group of the German Physical Society between 2004 and 2009, and is the current chair of the SPIE "Microfluidics, BioMEMS and Medical Microsystems" conference as well as co-chair for MicroTAS 2013. He serves on the Editorial Board of the journal "Lab-on-a-Chip" and is acting as a regular reviewer of project proposals on a national and international level.

PROF. TRISTAN GILET







Prof. **Tristan GILET** is the head of the Microfluidics Lab at the University of Liege (ULg). He obtained a PhD in Physics (ULg 2009) and then worked as an instructor at the Dept. of Mathematics at MIT (Cambridge, MA) between 2009 and 2011. He is now in charge of teaching Microtechnology and Microfluidics at ULg. The Microfluidics Lab has been created in 2012 in the Department of Aerospace and Mechanical Engineering (ULg). The research activity of the group, mostly experimental, is at the intersection between fluid dynamics, microtechnology and biology. It is mainly focused on multiphase microflows (incl. droplet dynamics, wetting, super-hydrophobicity, droplet-based microfluidics and capillary adhesion). The Microfluidics Lab is part of the GRASP (research on soft matter: <http://grasp-lab.org/>) and a member of the IAP network microMAST (applications of surface tension in microtechnology: <http://www.micromast.be/>).



VENUE

- **TECHNIFUTUR®**
LIÈGE SCIENCE PARK
Rue du Bois Saint Jean, 15-17
B-4102 Seraing
Belgium
- **GPS**
50° 35' 36 N
5° 33' 36 E

INFORMATION

- **LANGUAGE: English**
- **DATE: APRIL 29 & 30, 2013**
- **ON-LINE REGISTRATION**
www.technifutur.be
Maximum 25 participants at the Workshop ! → **REGISTER NOW ! (closing April, 23)**
- **CONTACTS**
Informaton: **Elisabeth DELEUTERIO**  elisabeth.deleuterio@technifutur.be  +32 4 382 44 46
Seminar contents: **Frederik CAMBIER**  frederik.cambier@technifutur.be  +32 496 541 610
- **PARTICIPATION FEE: FREE OF CHARGE**



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