

Purpose and Scope

Over the last 20 years, microfluidics and chip engineering, the so called „Lab on Chip“ technology, has led to many exciting results, PhD theses, publications, several new journals, and commercial products. The trend has gone from chemistry applications to cell biology and clinical diagnostics, from electrophoresis and biosensors to digital microfluidics and droplet methods, from micrometer features to nanostructures and molecular self assembly. And there seem to be no limits in sight. The only problem arising is that academic research is going at a higher pace than the applications and the commercial use of „Lab on Chip“.

Therefore, the purpose of this international workshop is to bring together researchers, technologists, entrepreneurs and funding bodies to interact in the multidisciplinary field of „Lab on Chip“, specifically aimed at biological and medical applications. All speakers are by invitation only. Ample opportunity for informal talks will also be provided, as delegates will stay at a centralised venue, and contributed posters can be presented.

This workshop will focus on the following leading areas of „Lab on Chip“ for bio applications:

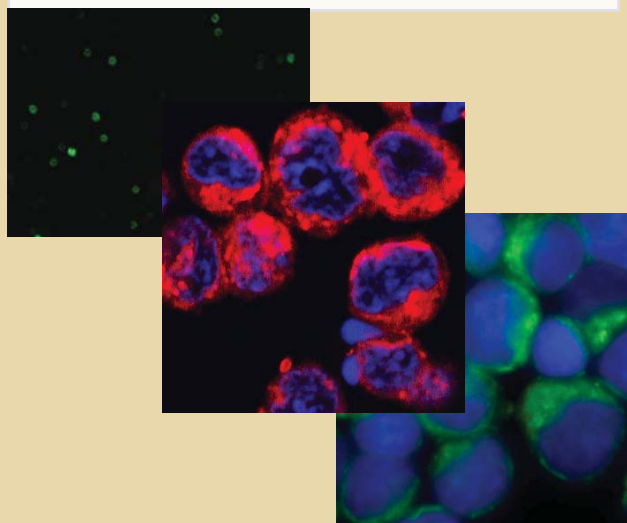
- droplet, bubble, vesicle, micelle, liposome formation
- multi phase flow management and theory
- segmented flow applications
- virtual reactors, droplet arrays, random vesicle suspension
- digital microfluidics, underlying technology & manufacturing
- related manufacturing and surface chemistry methods
- bio-mimetic microfabrication and novel concepts
- cell cultivation, manipulation, counting, separations, sorting, trapping
- detection and imaging
- clinical diagnostics applications and instrumentation
- cancer research, stem cells, neuroscience, tissue engineering
- drug discovery, biomarker discovery
- molecular biology, proteomics, metabolomics and microbiology research
- similar topics

Poster & Exhibition

Authors may submit poster abstracts for acceptance until August 21, 2011. Submission by e-mail or file attachment to the contact below. Peer reviewing and notification of acceptance by September 5, 2011. Last minute poster abstracts can be received until October 9, 2011.

Funding agencies, publishers, learned societies and companies may apply for exhibition space (very limited).

contact: sprave@kist-europe.de



Contact

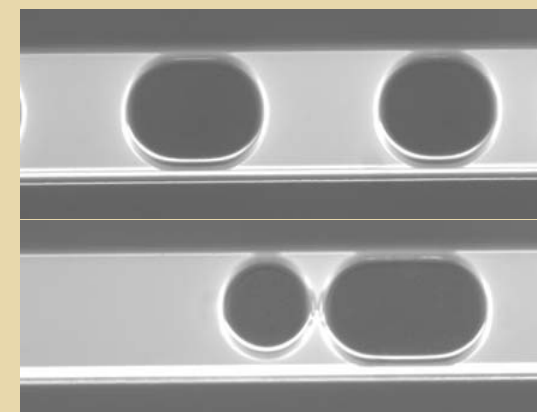
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Bubble Tech to Bio App „LAB-ON-A-CHIP“

**2nd Korea - EU Workshop
on Microfluidic Technology for
Chemical, Biological & Medical Applications**



**October 17-18, 2011
Saarbruecken, Germany**

Registration Fees

	until Sept. 19, 2011	onsite (after Sept. 20, 2011)
Participants		
academia/ government	150 €	200 €
industry	250 €	300 €
students	50 €	70 €

Symposium registration includes free attendance to the workshops, as well as welcome reception, barbeque and refreshments during the conference days.

Cancellation policy: A refund (less 20% administration fee) will be available if cancellation notice is received at the organizing office by September 30, 2011. No refunds will be available after this date. Substitutions are accepted. Please contact the conference office at sprave@kist-europe.de.

Preliminary Program

Monday, 17 October 2011

11:00 - 12:00	welcome reception
12:00 - 14:00	session 1: bubble tech - chemistry
14:00 - 14:30	coffee break
14:30 - 16:30	session 2: bubble tech - physics
16:30 - 17:00	coffee break
17:00 - 19:00	session 3: bio app - cell biology
19:00	barbeque at KIST

Tuesday, 18 October 2011

09:00 - 11:00	session 4: bio app - molecular biology
11:00 - 11:30	coffee break
11:30 - 13:30	session 5: commercial aspects
13:30 - 13:40	closing remarks

Speakers

Robert Barber, STFC, Daresbury Laboratory, UK

„Electro-wetting-on-dielectric technologies: theory and application„
Yoon-Kyoung Cho, UNIST, Ulsan, Korea
„Fully Integrated Centrifugal Microfluidic Devices for Biomedical Applications“

Philip Day, University of Manchester, UK
„Understanding pathogenesis through multiple biomarker analysis of individual leukaemic cells“

Andrew J. de Mello, Imperial College, London, UK

Jaap den Toonder, University Eindhoven, Netherlands

Petra Dittrich, ETH Zürich, Switzerland

„Microfluidic tools for single cell and liposome analysis“

Peter Fielden, University Manchester, UK

Piotr Garstecki, Polish Academy of Sciences, Warsaw, Poland
„Automated droplet microfluidics for studies in biochemistry and microbiology“

Andrew Griffiths, Universite de Strasbourg, France

„Miniaturizing the laboratory in droplets“

Dong-Pyo Kim, Chungnam National University, Daejeon, Korea

„Droplet Microfluidics for Microchemical Synthetic Applications“

Michael Köhler, Technical University, Ilmenau, Germany

„Microfluidic adressing of concentration spaces and fast determination of toxicological dose/response functions by micro segmented flow technique“

Sunghoon Kwon, Seoul National University, Korea

„Encoded Droplets & Particles for Ultraplex Bioassay“

SangHoon Lee, Korea University, Korea

„Microfluidic platforms to provide 2D and 3D microenvironmennts for cell study“

Gregor Ocvirk, F. Hoffmann-La Roche Ltd., Mannheim, Germany

„Tackling challenges to the launch of microfluidic products in medical diagnostics“

Nicole Pamme, University of Hull, UK

„Attraction and repulsion - harnessing magnetic forces for lab-on-a-chip applications“

Je-Kyun Park, KAIST, Daejeon, Korea

„Optoelectrofluidic Lab-on-a-chip for Bioanalytical Applications“

Sabeth Verpoorte, University Groningen, NL

Dimitrios Sideris, Genetic Microdevices, Inc. London, UK

„Rapid High-Resolution Disposable Chip for Drug Discovery and Companion Diagnostic Tests“

Kahp-Yang Suh, Seoul National University, Korea

„Engineering approaches for controlled cellular microenvironments and organ chips“

Tom van de Goor, Agilent, Waldbronn, Germany

Yonghao Zhang, University of Strathclyde, Glasgow, UK

„Dynamics of droplets in microfluidic devices“

Scientific Advisory Board

- Harpal Minhas, Royal Society of Chemistry, Cambridge, UK
- Kahp Yang Suh, Seoul National University, Korea
- Je-Kyun Park, KAIST, Daejeon, Korea
- Andreas Manz, KIST Europe, Saarbrücken, Germany



Location

Saarbrücken is located in the West of Germany, near the French and Luxembourg borders. It can be reached by air (Luxembourg, Frankfurt), by train (Paris, Frankfurt, Mannheim) or by car. Some low-cost airlines may also be convenient (Saarbrücken, Zweibrücken, Frankfurt-Hahn). Conference venue is KIST Europe, Stuhlsatzenhausweg 97, Saarland University, Campus E71, 66123 Saarbrücken. Accommodation and more travel information can be found at www.hrs.de.