Lab on a Chip

Miniaturisation for chemistry, physics, biology, materials science and bioengineering

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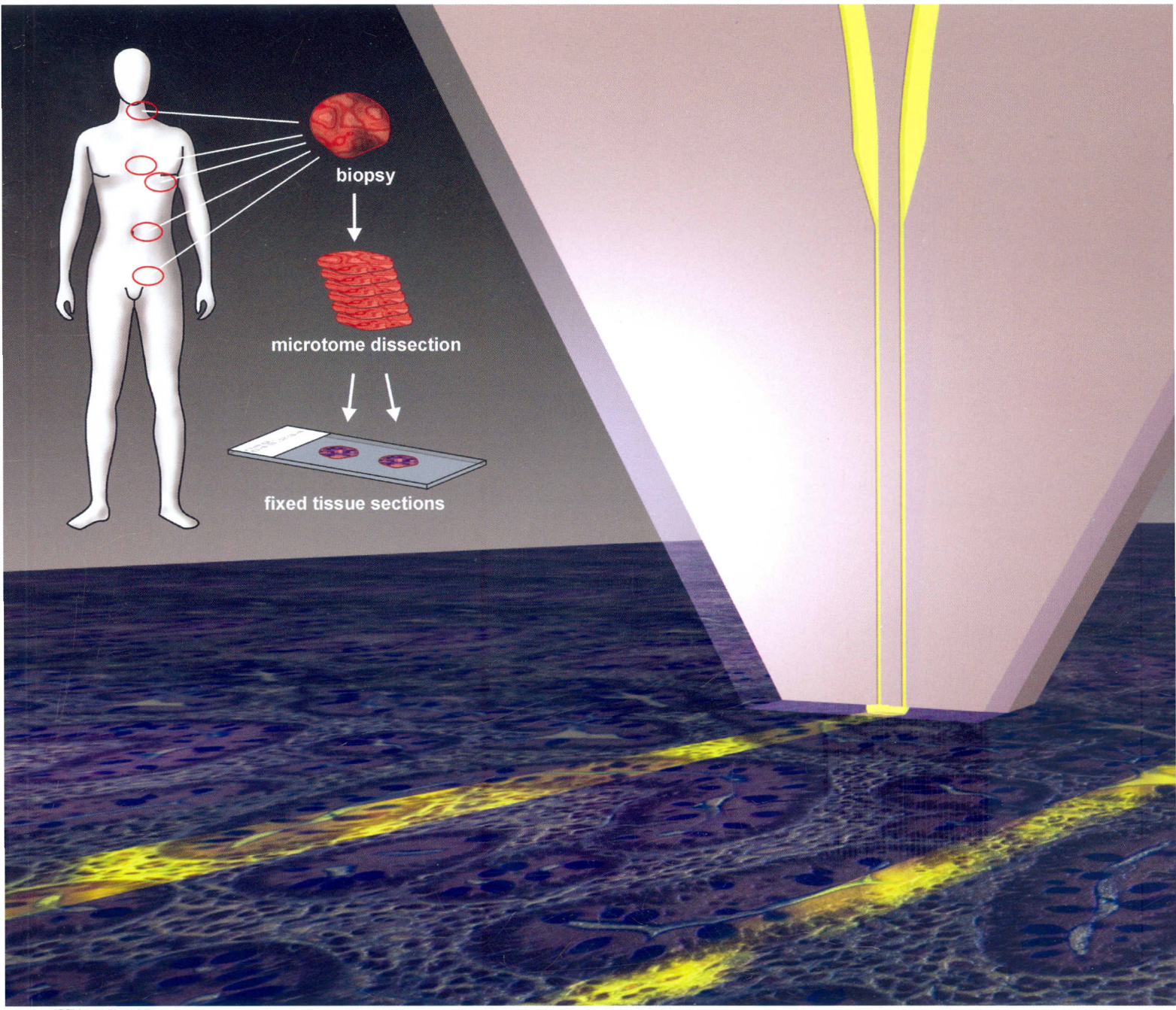

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COMMUNICATION

Kaigala *et al.*

Micro-immunohistochemistry using a microfluidic probe

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IN THIS ISSUE

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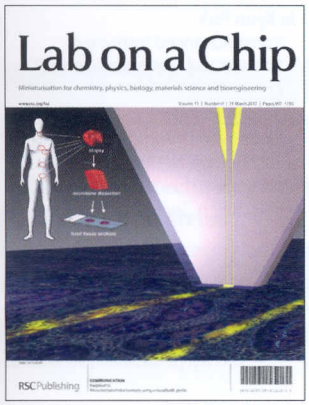
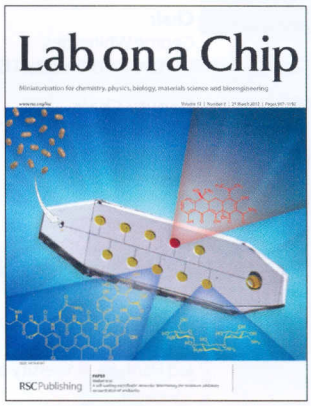


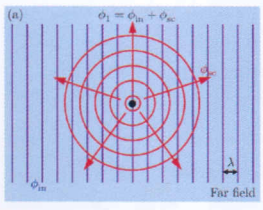
Cover
See Kaigala *et al.*, pp. 1040–1043. Image reproduced by permission of Govind V. Kaigala from *Lab Chip*, 2012, **12**, 1040.

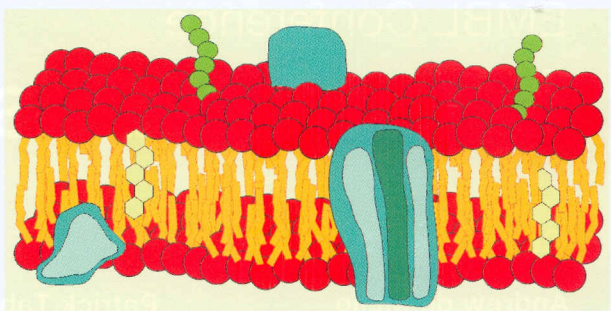


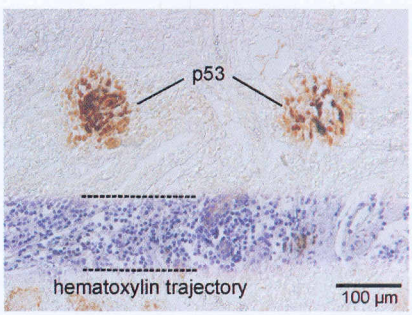
Inside cover
See Weibel *et al.*, pp. 1052–1059. Image reproduced by permission of Douglas Weibel from *Lab Chip*, 2012, **12**, 1052.

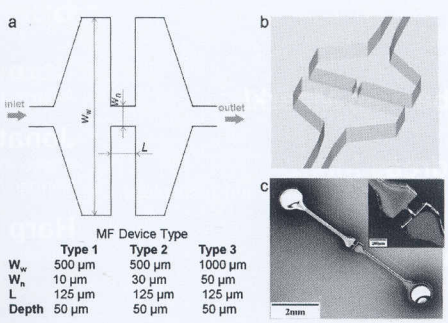
HIGHLIGHT

FOCUS









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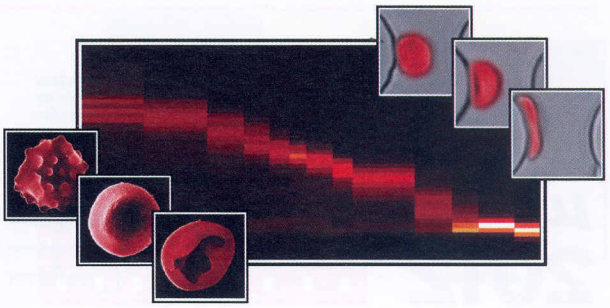
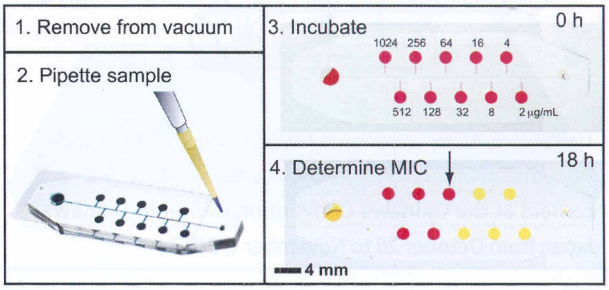
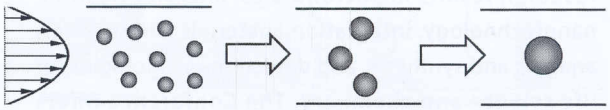
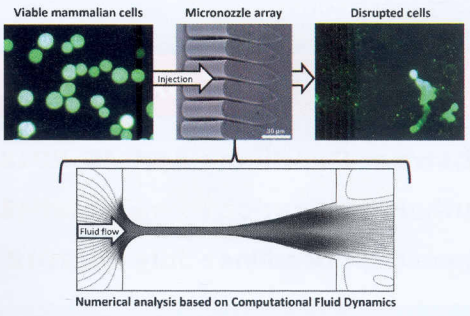
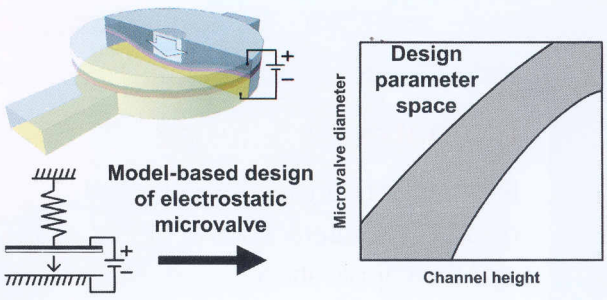


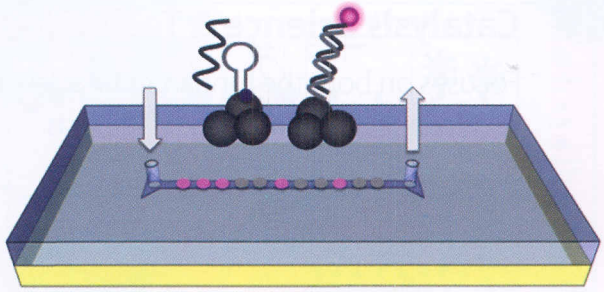
PAPERS

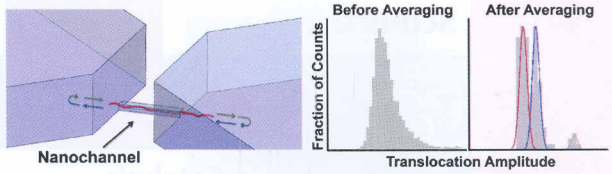


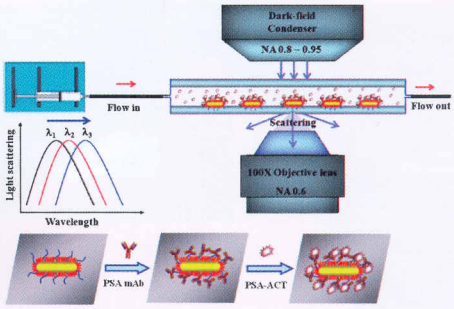










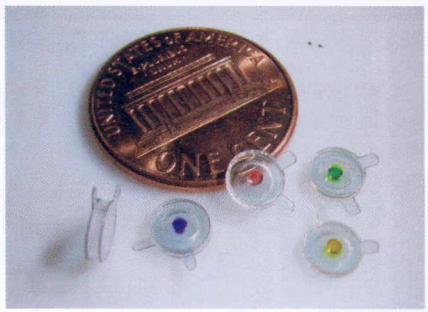


1110

Droplet-based interfacial capacitive sensing

Baoqing Nie, Siyuan Xing, James D. Brandt and Tingrui Pan*

We presented a novel droplet-based pressure sensing device, utilizing an elastic electrolyte–electrode contact with large interfacial capacitance, to achieve ultrahigh sensitivity (1.58 μF kPa^{-1}) and resolution (1.8 Pa) with flexible and transparent constructs.

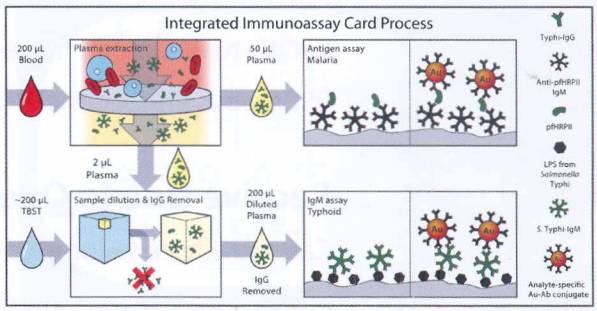


1119

Progress toward multiplexed sample-to-result detection in low resource settings using microfluidic immunoassay cards

Lisa Lafleur,* Dean Stevens, Katherine McKenzie, Sujatha Ramachandran, Paolo Spicar-Mihalic, Mitra Singhal, Amit Arjyal, Jennifer Osborn, Peter Kauffman, Paul Yager and Barry Lutz

We describe a platform that detects disease-specific antigens and IgM antibodies. The disposable microfluidic cards are based on a flow-through membrane immunoassay carried out on porous nitrocellulose.

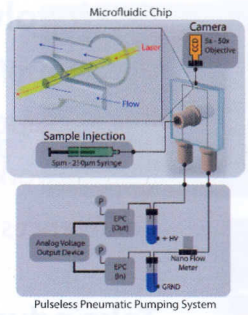


1128

Single particle analysis using fluidic, optical and electrophoretic force balance in a microfluidic system

Qin Lu, Alex Terray, Greg E. Collins and Sean J. Hart*

A unique microfluidic system is developed which enables the interrogation of a single particle by using multiple force balances from a combination of optical force, hydrodynamic drag force, and electrophoretic force.



1135

Integrated three-dimensional filter separates nanoscale from microscale elements in a microfluidic chip

Lorenzo Amato, Yu Gu, Nicola Bellini, Shane M. Eaton, Giulio Cerullo and Roberto Osellame*

Integration of a size-based three-dimensional filter, with micrometre-sized pores, in an already sealed commercial microfluidic chip by two-photon polymerization.