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Lab on a Chip

Devices and applications at the micro- and nanoscale

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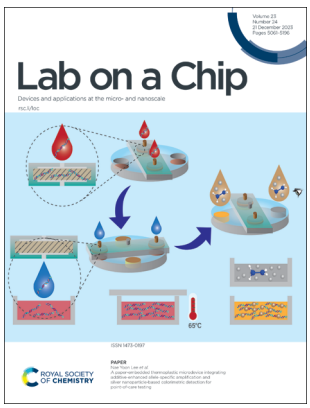
ISSN 1473–0197 CODEN LCAHAM 23(24) 5061–5196 (2023)



Cover
See Nae Yoon Lee *et al.*, pp. 5081–5091.
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PERSPECTIVE

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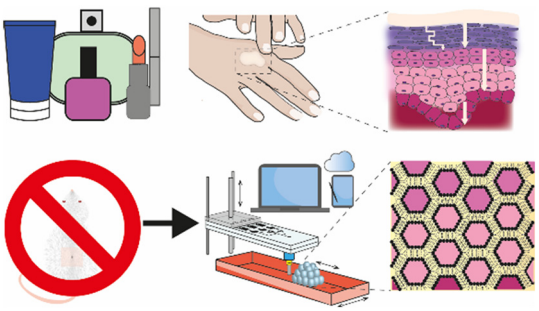
Towards skin-on-a-chip for screening the dermal absorption of cosmetics

Jessica Govey-Scotland, Liam Johnstone, Connor Myant and Mark S. Friddin*



PAPERS

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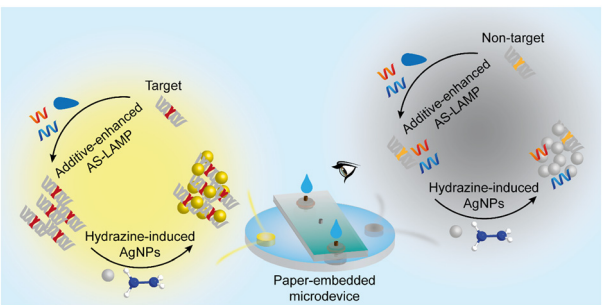
A paper-embedded thermoplastic microdevice integrating additive-enhanced allele-specific amplification and silver nanoparticle-based colorimetric detection for point-of-care testing

Duc Anh Thai, Seung Kyun Park and Nae Yoon Lee*



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Lab on a Chip (electronic: ISSN 1473-0189) is published 24 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF.

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PAPERS

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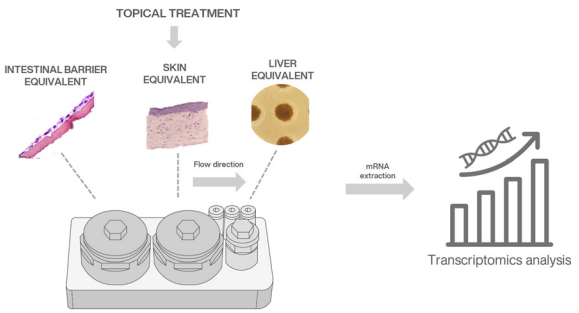
Combining a microphysiological system of three organ equivalents and transcriptomics to assess toxicological endpoints for cosmetic ingredients

Nathalia de Carvalho Indolfo, Melissa Dibbernn Ganzerla, Tábata Renée Doratioto, Thayná Mendonça Avelino, Larissa Bueno Tofani, Luis Antonio Peroni, Renata Santos Rabelo, Kelen Fabiola Arroteia and Ana Carolina Migliorini Figueira*



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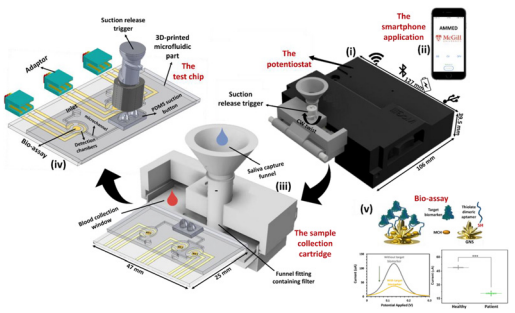
Additively manufactured multiplexed electrochemical device (AMMED) for portable sample-to-answer detection

Arash Khorrami Jahromi, Roozbeh Siavash Moakhar, Sripadh Guptha Yedire, Hamed Shieh, Katerina Rosenflanz, Amber Birks, Justin de Vries, Yao Lu, Houda Shafique, Julia Strauss and Sara Mahshid*



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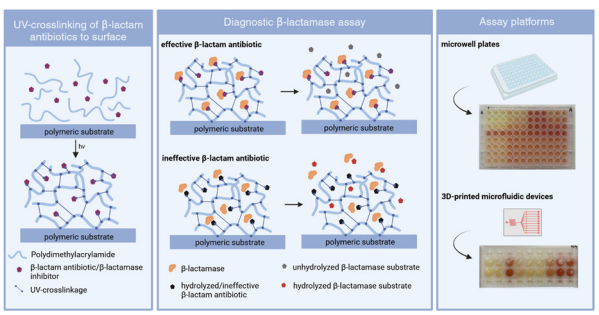
Highly efficient β-lactamase assay applying poly-dimethylacrylamide-based surface functionalization with β-lactam antibiotics and β-lactamase inhibitors

Simone Rentschler, Max Borgolte, Alexander Filbert, Stefan Laufer and Hans-Peter Deigner*



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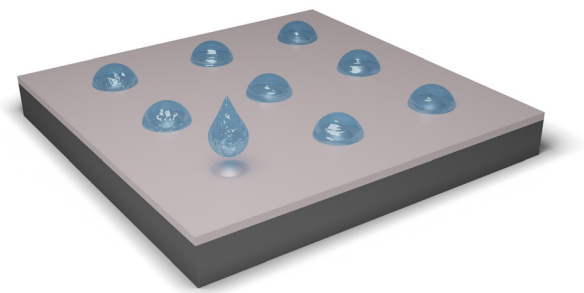
Ultrasonic spectroscopy of sessile droplets coupled to optomechanical sensors

K. G. Scheuer, F. B. Romero, G. J. Hornig and R. G. DeCorby*



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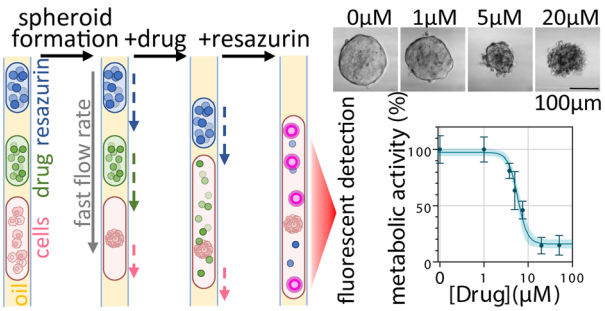

Simple droplet microfluidics platform for drug screening on cancer spheroids

Caroline Parent,* Kiran Raj Melayil, Ya Zhou, Vivian Aubert, Didier Surdez, Olivier Delattre, Claire Wilhelm* and Jean-Louis Viovy*

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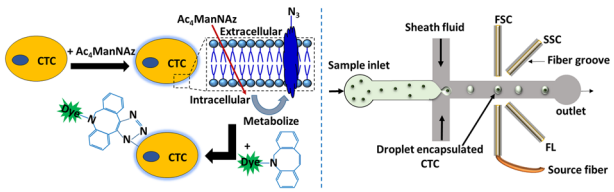

Optomicrofluidic detection of cancer cells in peripheral blood *via* metabolic glycoengineering

K. Mirkale,* S. K. Jain, T. S. Oviya and S. Mahalingam

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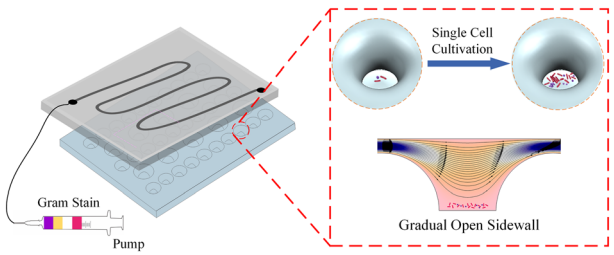

Advancing *in situ* single-cell microbiological analysis through a microwell droplet array with a gradual open sidewall

Jie Wang, Lin Du, Yuwei Han, Dawei Zhang* and Dalei Jing*

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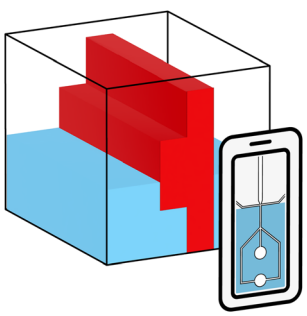

Alignment-free construction of double emulsion droplet generation devices incorporating surface wettability contrast

Yunus Aslan, Olivia McGleish, Julien Reboud and Jonathan M. Cooper*

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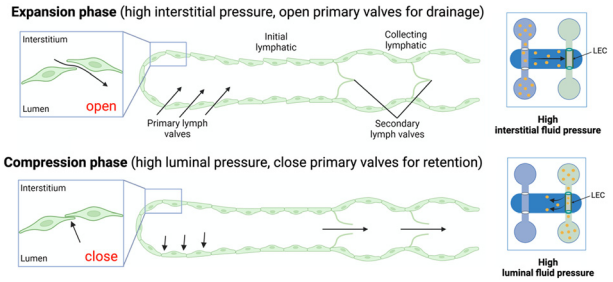
A human initial lymphatic chip reveals distinct mechanisms of primary lymphatic valve dysfunction in acute and chronic inflammation

Samantha Kraus and Esak Lee*



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