

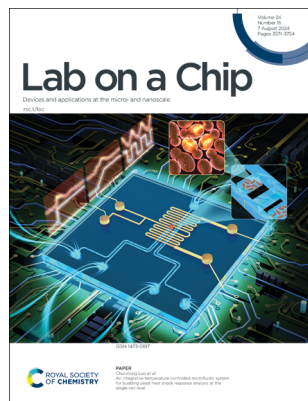
Lab on a Chip

Devices and applications at the micro- and nanoscale
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Cover
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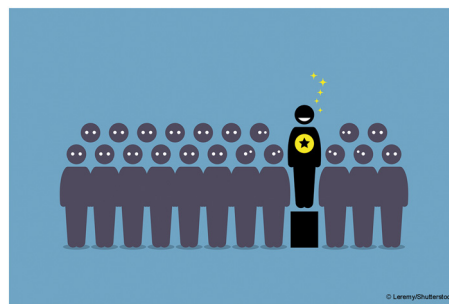


Inside cover
See Cheng-Hsien Liu *et al.*,
pp. 3668–3678.
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EDITORIAL

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Outstanding Reviewers for *Lab on a Chip* in 2023

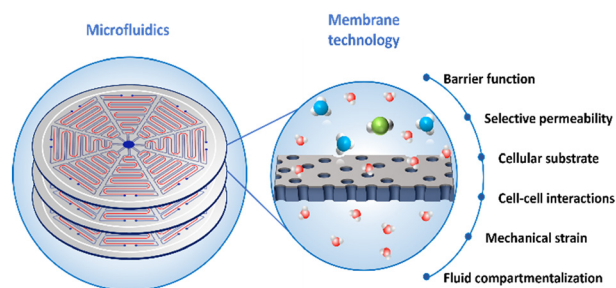


TUTORIAL REVIEW

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Membrane-based microfluidic systems for medical and biological applications

Silvia Tea Calzuola,* Gwenyth Newman, Thomas Feaugas, Cécile M. Perrault, Jean-Baptiste Blondé, Emmanuel Roy, Constance Porrini, Goran M. Stojanovic and Jasmina Vidic





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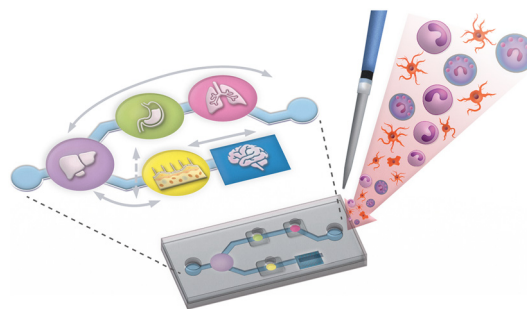


CRITICAL REVIEWS

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Modelling the innate immune system in microphysiological systems

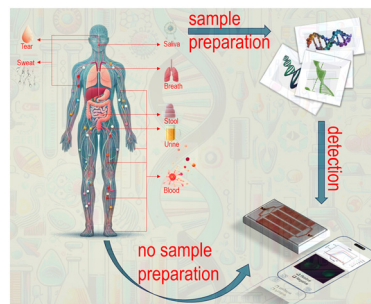
Michael J. Rupar, Hannah Hanson, Stephanie Rogers, Brianna Botlick, Steven Trimmer and James J. Hickman*



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Sample preparation and detection methods in point-of-care devices towards future at-home testing

George Adedokun, Morteza Alipanah and Z. Hugh Fan*

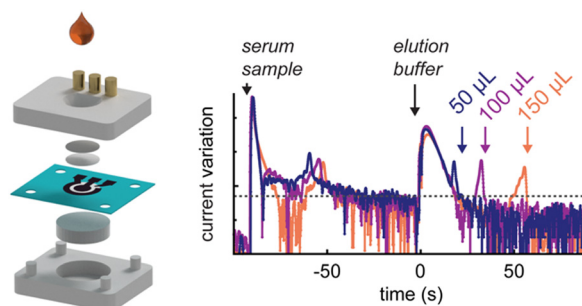


COMMUNICATION

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Quantitative reagent monitoring in paper-based electrochemical rapid diagnostic tests

Léonard Bezinge, Andrew J. deMello, Chih-Jen Shih and Daniel A. Richards*

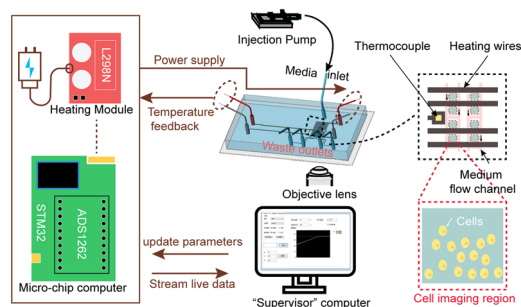


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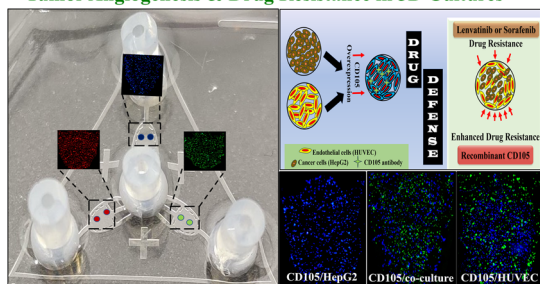
An integrative temperature-controlled microfluidic system for budding yeast heat shock response analysis at the single-cell level

Jie Hong, Hao He, Yinjia Xu, Shujing Wang and Chunxiong Luo*



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Tumor Angiogenesis & Drug Resistance in 3D Cultures

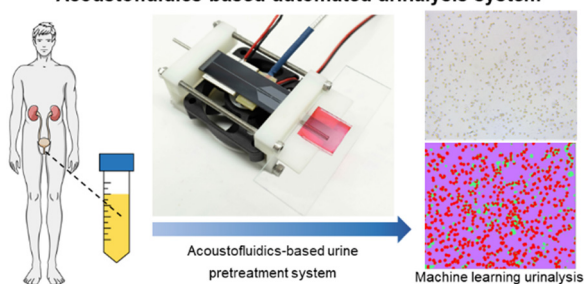


Deciphering hepatoma cell resistance to tyrosine kinase inhibitors: insights from a Liver-on-a-Chip model unveiling tumor endothelial cell mechanisms

Madhu Shree Poddar, Yu-De Chu, Chau-Ting Yeh and Cheng-Hsien Liu*

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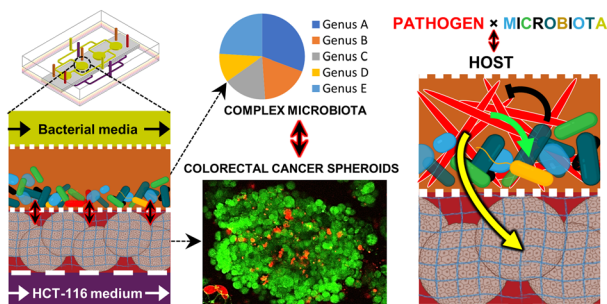
Acoustofluidics-based automated urinalysis system



Acoustofluidic-based microscopic examination for automated and point-of-care urinalysis

Xin He, Feng Ren, Yangyang Wang, Zhiyuan Zhang, Jiming Zhou, Jian Huang, Shuye Cao, Jinying Dong, Renxin Wang, Mengxi Wu* and Junshan Liu*

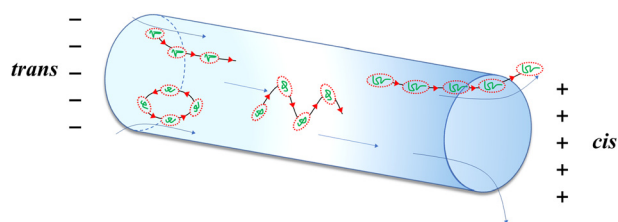
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A microfluidic co-culture model for investigating colonocytes-microbiota interactions in colorectal cancer

Daniel Penarete-Acosta, Rachel Stading, Laura Emerson, Mitchell Horn, Sanjukta Chakraborty, Arum Han and Arul Jayaraman*

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Dynamic behavior of DNA molecules in microchannels: exploring deflective, elliptical, and spin motions induced by Saffman and Magnus forces

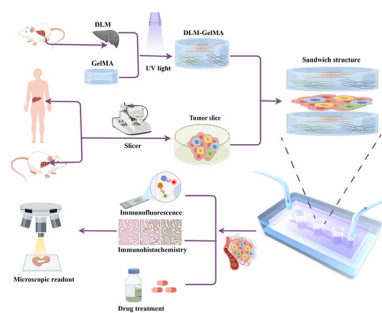
Zhiwei Li, Qiong Wang, Yong Niu, Ruiyu Wang, Wei Zhao, Chen Zhang, Guiren Wang and Kaige Wang*



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DLM–GelMA/tumor slice sandwich structured tumor on a chip for drug efficacy testing

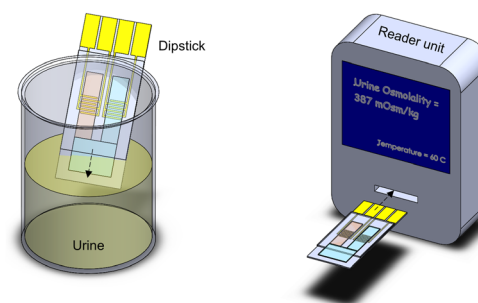
Wenqi Hu, Ho-Pan Bei, Hongwei Jiang, Di Wu, Xiaorui Yu, Xintong Zhou, Qiuwan Sun, Qinrui Lu, Qijun Du, Liangwen Wang, Zhi Luo, Guohua Wu,* Xin Zhao* and Shuqi Wang*



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Tian Fook Kong, Xinhui Shen, Mei Yi Sim, Jin Yong, Tze Kiat Ng, Tsung Wen Chong* and Marcos*



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A centrifugal-driven spiral microchannel microfiltration chip for emulsion and deformable particle sorting

Yongchao Cai, Zekun Li, Cuimin Sun,* Xuan Zhao, Shixiong Wu, Guangyong Huang, Shengchang Tang, Peng Dai, Xiangfu Wei and Hui You*

