## Lab on a Chip

## Devices and applications at the micro- and nanoscale rsc.li/loc

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ISSN 1473-0197 CODEN LCAHAM 24(23) 5169-5266 (2024)



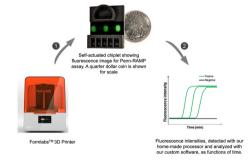
Cover See Felix Ansah, Marziyeh Hajialyani, Haim H. Bau et al., pp. 5175-5183. Image reproduced by permission of Haim H. Bau from Lab Chip, 2024, 24, 5175.

#### **PAPERS**

#### 5175

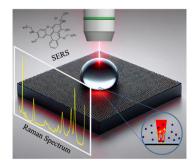
#### Self-actuated microfluidic chiplet for two-stage multiplex nucleic acid amplification assay

Felix Ansah, Marziyeh Hajialyani, Fatemeh Ahmadi, Yuming Gu, Ergün Alperay Tarım, Michael G. Mauk, Gordon A. Awandare and Haim H. Bau\*



Utilization of microdroplets as optical lenses for surface-enhanced Raman spectroscopy (SERS) enhancement on localized silver nanoparticledecorated porous silicon substrates

Chia-Wen Tsao\* and Zi-Yi Yang







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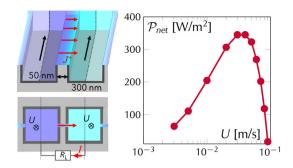
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#### A nanofluidic exchanger for harvesting saline gradient energy

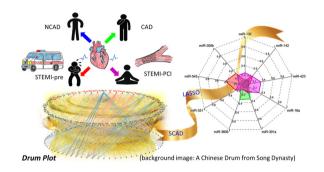
Saranath Sripriya, Cyril Picard, Vincent Larrey, Frank Fournel and Elisabeth Charlaix\*



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#### Towards real-time myocardial infarction diagnosis: a convergence of machine learning and ionexchange membrane technologies leveraging miRNA signatures

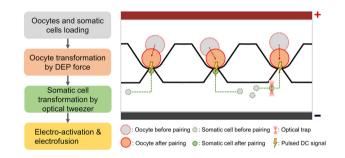
Xiang Ren, Ruyu Zhou, George Ronan, S. Gulberk Ozcebe, Jiaying Ji, Satyajyoti Senapati, Keith L. March, Eileen Handberg, David Anderson, Carl J. Pepine, Hsueh-Chia Chang, Fang Liu and Pinar Zorlutuna\*



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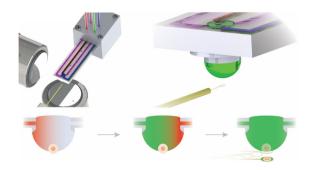
#### Optical tweezer-assisted cell pairing and fusion for somatic cell nuclear transfer within an open microchannel

Yidi Zhang, Han Zhao, Zhenlin Chen, Zhen Liu, Hanjin Huang, Yun Qu, Yaowei Liu, Mingzhu Sun, Dong Sun\* and Xin Zhao\*



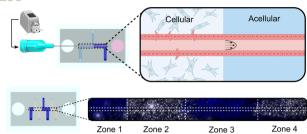
#### A microfluidic hanging droplet as a programmable platform for mammalian egg vitrification

Haidong Feng, Georgios Katsikis, India D. Napier, Gong Du, Josh Lim, Joseph O. Doyle, Scott R. Manalis and Linda G. Griffith\*



#### **PAPERS**

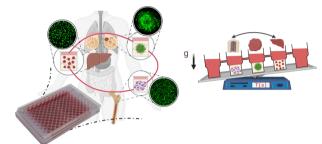
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### Zonal patterning of extracellular matrix and stromal cell populations along a perfusable cellular microchannel

Brea Chernokal, Bryan J. Ferrick and Jason P. Gleghorn\*





#### A gravity-driven tissue chip to study the efficacy and toxicity of cancer therapeutics

Pouria Rafsanjani Nejad, Astha Lamichhane, Prasiddha Guragain, Gary Luker and Hossein Tavana\*

#### CORRECTION

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Correction: 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\*