

Lab on a Chip

Devices and applications at the micro- and nanoscale
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See Seunghyun Lee, Sung Kwon *et al.*, pp. 4309–4316.
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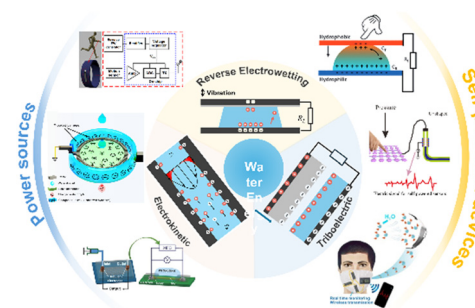
Inside cover
See Hongju Mao, Zhenhua Wu *et al.*, pp. 4317–4327.
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Interfacial electro-hydrodynamics inspired micro/nano-fluidic energy conversion: from mechanism to applications

Lingxuan Hao, Mohammed Imran Khan, Yilin Lei, Shuneng Zhou and Bei Fan*

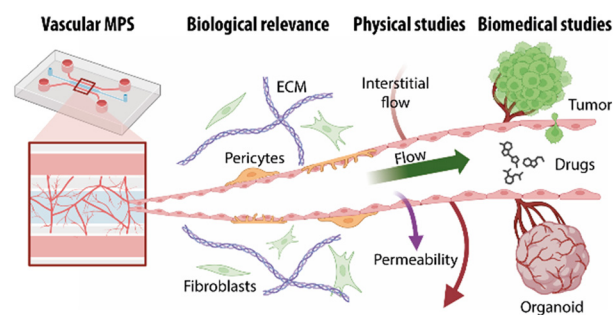


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Vascular microphysiological systems (MPS): biologically relevant and potent models

Lucas Breuil, Atsuya Kitada, Sachin Yadav, Hang Zhou, Kazuya Fujimoto and Ryuji Yokokawa*



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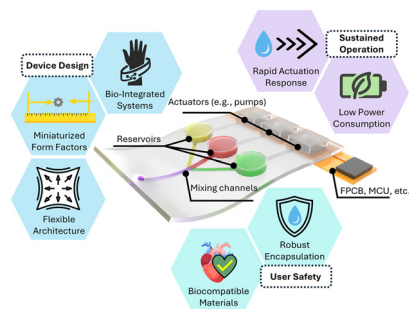


CRITICAL REVIEWS

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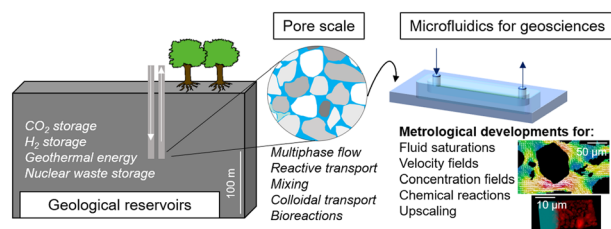
Qi Wang, Yizhen Jia and Jinghua Li*



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Microfluidics for geosciences: metrological developments and future challenges

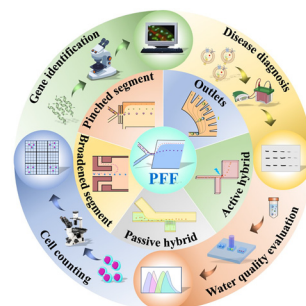
Sophie Roman,* Flore Rembert, Anthony R. Kovscek and Jenna Poonosamy*



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Qi Cui, Guizhong Tian, Tianyuan Zhou, Yigang Shen, Shilun Feng, Ming Li, Weihua Li, Yoichiro Hosokawa, Yaxiaer Yaliku* and Tianlong Zhang*

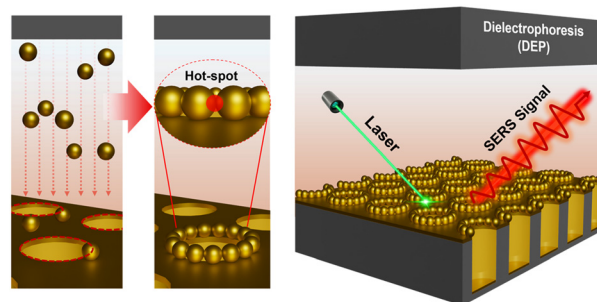


COMMUNICATION

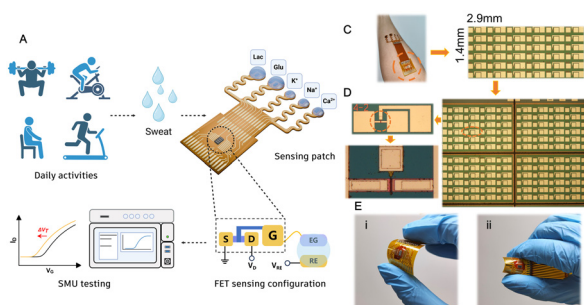
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Well-defined assembly of plasmonic metal nanoparticles by dielectrophoresis for highly sensitive SERS-active substrates

Yun Su Yeo, Jaejun Park, Sunghoon Yoo, Dong Hwan Nam, Hayoung Kim, Tae Jae Lee, Gyu Leem, Jae-Sung Kwon* and Seunghyun Lee*



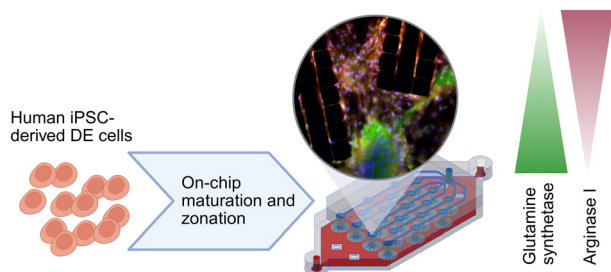
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A multi-channel wearable sensing patch based on gate-all-around field-effect transistors

Zhe Xing, Qiang Liu, Bo Lin, Shuang Li, Yuxin Liu, Guanyang Zhang, Wenjie Yu, Zhenhua Wu* and Hongju Mao*

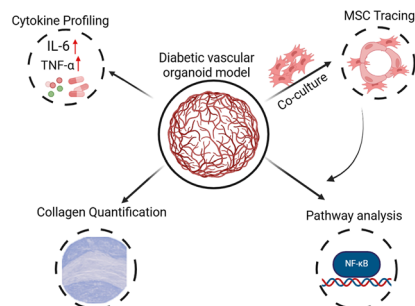
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An *in vivo* mimetic liver-lobule-chip (LLOC) for stem cell maturation, and zonation of hepatocyte-like cells on chip

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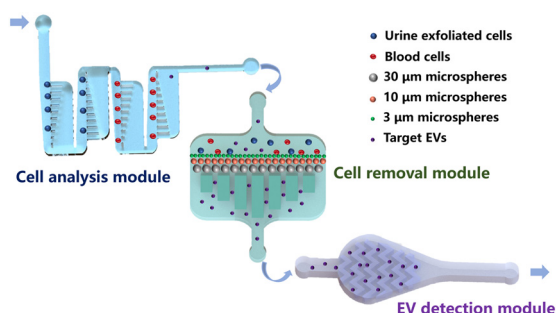
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Mesenchymal stem cells attenuate diabetic vascular complication by reducing irregular extracellular matrix production in human blood vessel organoids

Junhong Zeng, Jiaqi Wang, Yu Zhang, Zitian Wang, Yu Zhu, Yibo Hou, Xiangsai Li, Haiying Peng, Peter E. Lobie and Shaohua Ma*

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A urine detection chip for the analysis of urinary cells and extracellular vesicles for bladder cancer screening

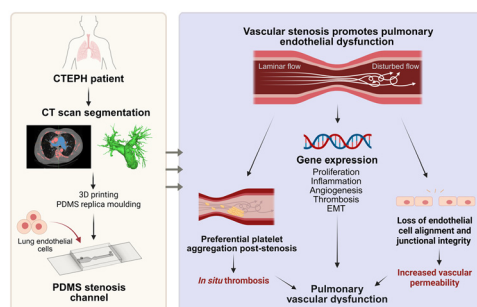
Junyuan Liu, Yuxin Qu, Xun Xu, Zixing Ye,* Jing Cheng* and Han Wang*



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3D modelling of pulmonary arterial stenosis and endothelial dysfunction in CTEPH

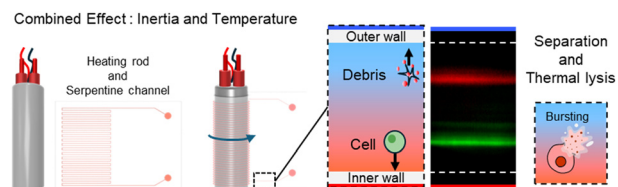
Salina Nicoleau, Ylenia Roger Valle, Olga Tura-Ceide, Chloe H. Armour, Joan Albert Barberà, Thomas. A. J. McKinnon, Deepa Gopalan and Beata Wojciak-Stothard*



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Micro-/nanoparticle separation combining inertial and thermophoretic effects in three-dimensional serpentine-spiral channels

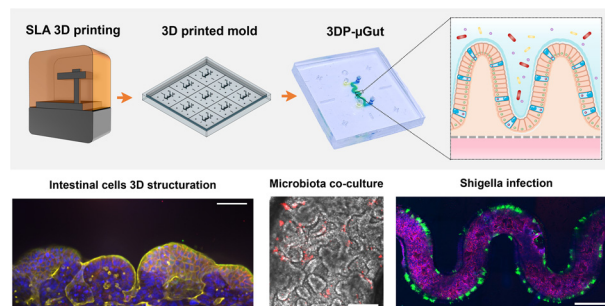
Junho Kim, Hwisu Jeon, Kyunghun Lee and Taesung Kim*



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Gut-on-chip methodology based on 3D-printed molds: a cost-effective and accessible approach

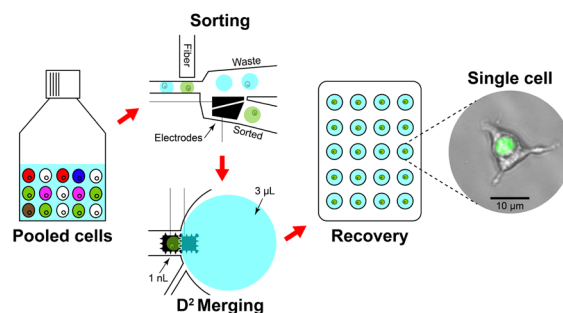
Elise Delannoy, Aurélie Burette, Sébastien Janel, Sabine Poirat, Nathalie Deboosere, Catherine Daniel and Alexandre Grassart*



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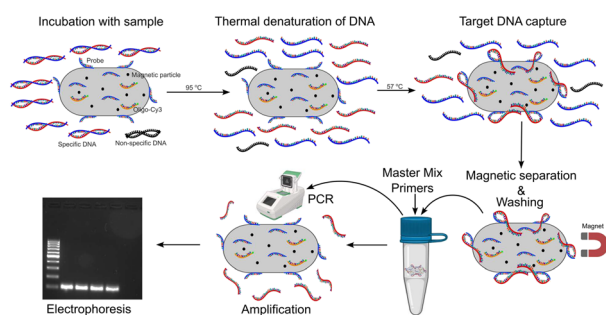
Recovery of phenotypically sorted cells using droplet-digital microfluidics

Zhiyang Deng, James M. Perry, Marian Weiss, Robert Genth, Alexis Autour, Christoph A. Merten* and Steve C. C. Shih*



PAPERS

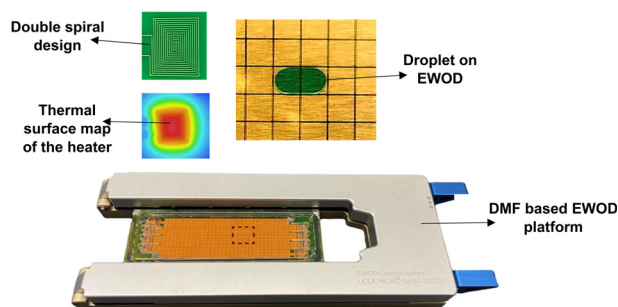
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Hydrogel beads for enhanced nucleic acid analysis in complex fluid matrices

Lokman Alpsoy, Stephan Tieu, Sina Dehestanizad, Thomas Brandstetter and Jürgen Rühle*

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Integrated heating & sensing for PCB EWOD chips on a digital microfluidics cloud platform

Mosfera A. Chowdury, Gnanesh Nagesh, Eric Hyunsung Cho, Qining Leo Wang, Bhawya, Abdulrahman Altabbaa, Lina Rose, Simon Rondeau-Gagné, Chang-Jin “CJ” Kim* and Mohammed Jalal Ahamed*

CORRECTIONS

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Correction: Pipette-operable microfluidic devices with hydrophobic valves in sequential dispensing with various liquid samples: multiplex disease assay by RT-LAMP

Yen-Wei Chang, Jih-Pu Lin, Shiu-Jie Ling, Yen-Chun Chen, Helene Minyi Liu and Yen-Wen Lu*

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Correction: Evaluating migration and cytotoxicity of tissue-resident and conventional NK cells in a 3D microphysiological system using live-cell imaging

Hyeri Choi, June Ho Shin, Hyeonsu Jo, John B. Sunwoo* and Noo Li Jeon*

