

Lab on a Chip

Devices and applications at the micro- and nanoscale
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ISSN 1473-0197 CODEN LCAHAM 24(20) 4671-4932 (2024)



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See Ainara Vallejo-Illarramendi, Jacobo Paredes *et al.*, pp. 4741-4754.
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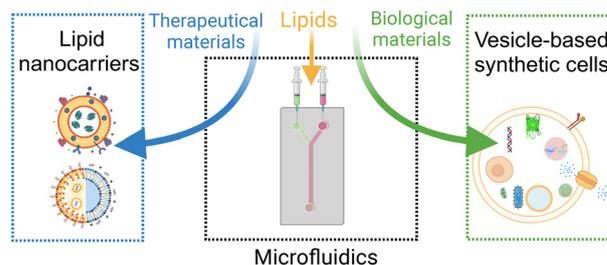
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Xu Qian,* Qiang Xu, Christopher J. Lyon and Tony Y. Hu*



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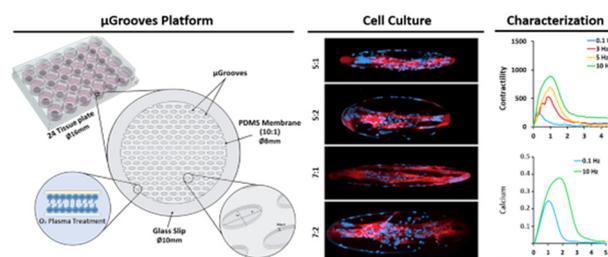
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Development of an *in vitro* platform for the analysis of contractile and calcium dynamics in single human myotubes

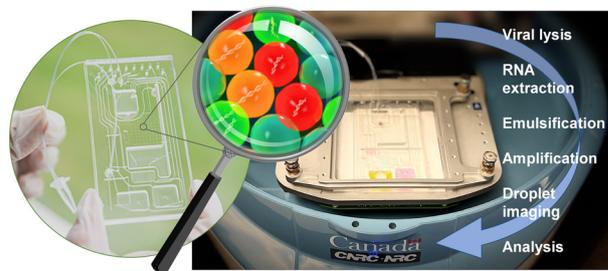
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Sample-to-answer centrifugal microfluidic droplet PCR platform for quantitation of viral load

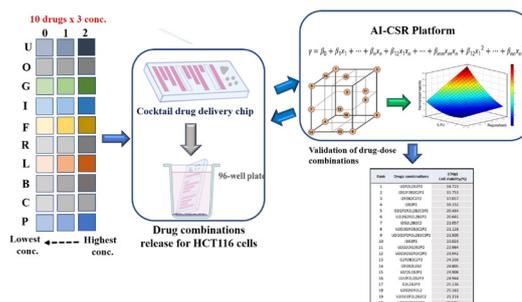
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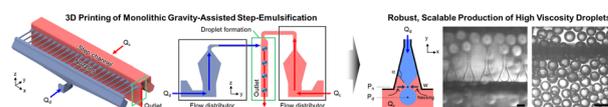
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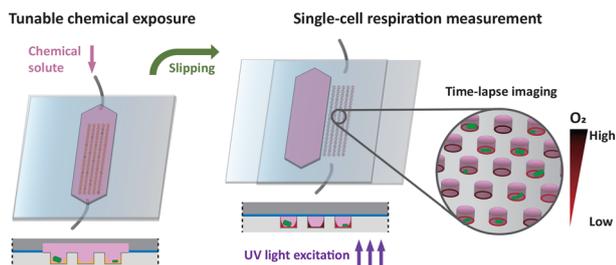
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3D printing of monolithic gravity-assisted step-emulsification device for scalable production of high viscosity emulsion droplets

Yoon-Ho Hwang, Je Hyun Lee, Taewoong Um and Hyomin Lee*



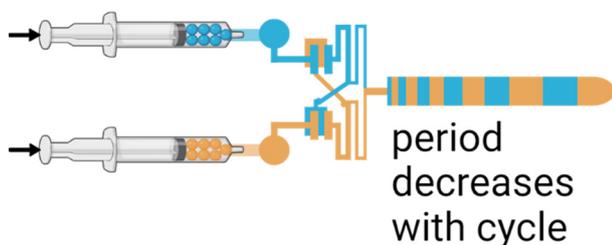
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SlipO₂Chip – single-cell respiration under tuneable environments

Yuan Cui, Milena De Albuquerque Moreira, Kristen E. Whalen, Laurent Barbe, Qian Shi, Klaus Koren, Maria Tenje and Lars Behrendt*

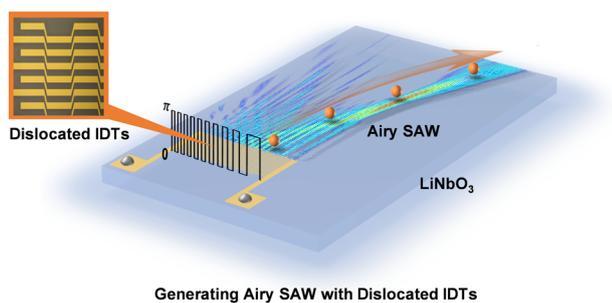
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Forced air oscillations – pneumatic capacitance in microfluidic oscillators produces non-linear responses and emergent behaviors

Sasha Cai Leshner-Pérez, Vishwa Vasani, Jihye So and Shuichi Takayama*

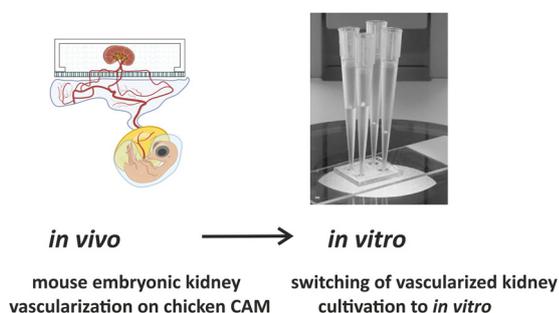
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Generating Airy surface acoustic waves with dislocated interdigital transducers

Zongjun Ma, Delai Kong, Wenfeng Cai, Zhenming Wang, Ming Cheng, Zixuan Wu, Xueqian Zhao, Mengjia Cen, Haitao Dai, Shifeng Guo and Yan Jun Liu*

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From *ex ovo* to *in vitro*: xenotransplantation and vascularization of mouse embryonic kidneys in a microfluidic chip

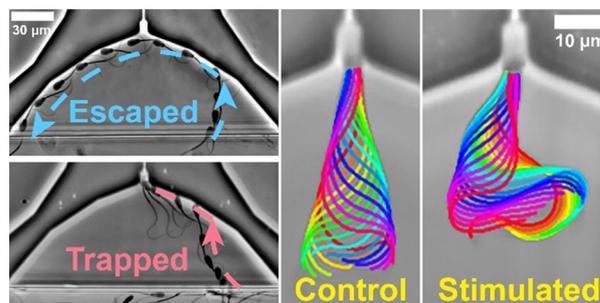
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Microfluidic sperm trap array for single-cell flagellar analysis with unrestricted 2D flagellar movement

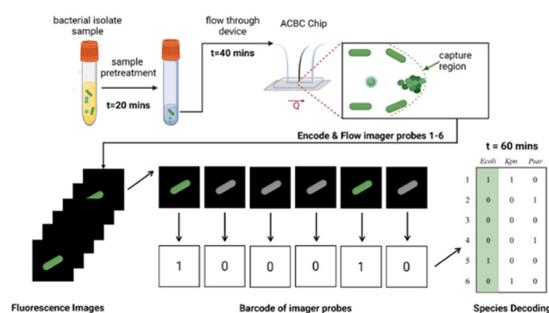
Kaiyu Wang, Antai Tao, Rongjing Zhang* and Junhua Yuan*



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Rapid identification of bacterial isolates using microfluidic adaptive channels and multiplexed fluorescence microscopy

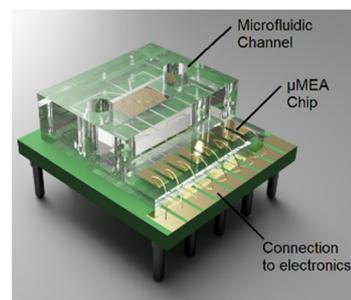
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Integrated microfluidic multiple electrode aggregometry for point-of-care platelet function analysis

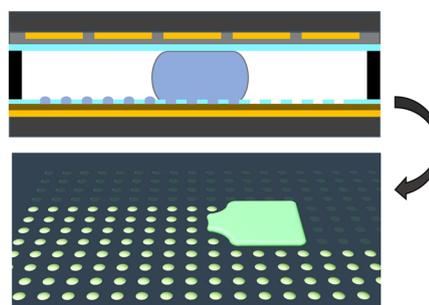
X. Zhao,* V. R. Gopal, F. Lozano-Juan, K. Kolandaivelu, A. Sarkar, D. Wu, J. Su, Q. Cheng, R. Pang and L.-S. Wu



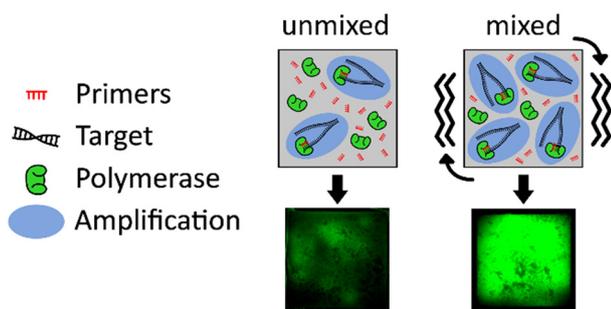
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Improved Teflon lift-off for droplet microarray generation and single-cell separation on digital microfluidic chips

Chuanjie Shen, Zhaoduo Tong, Xin Xu and Hongju Mao*



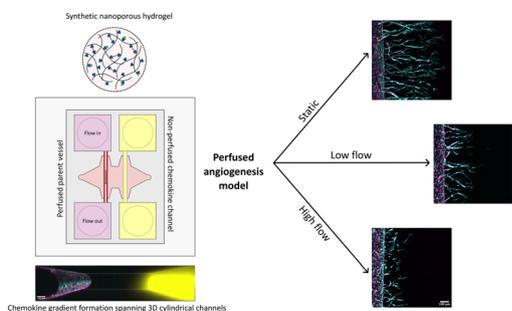
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Vibration mixing for enhanced paper-based recombinase polymerase amplification

Kelli N. Shimazu, Andrew T. Bender, Per G. Reinhall and Jonathan D. Posner*

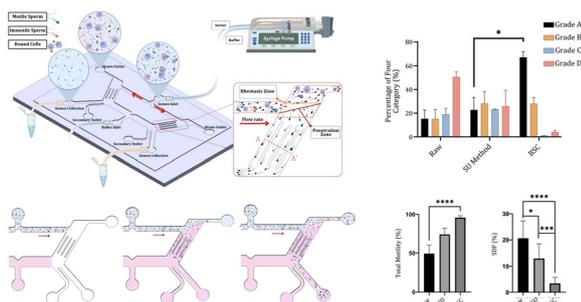
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A nanoporous hydrogel-based model to study chemokine gradient-driven angiogenesis under luminal flow

Nidhi Mote, Sarah Kubik, William J. Polacheck, Brendon M. Baker and Britta Trappmann*

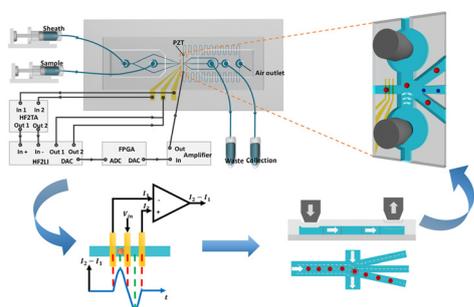
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High-throughput selection of sperm with improved DNA integrity and rapidly progressive motility using a butterfly-shaped chip compared to the swim-up method

Ali Sharafatdoust Asl, Mohammad Zabetian Targhi,* Soroush Zeaei, Iman Halvaei and Reza Nosrati*

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Label-free high-throughput impedance-activated cell sorting

Kui Zhang, Ziyang Xia, Yiming Wang, Lisheng Zheng, Baoqing Li* and Jiaru Chu*

