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

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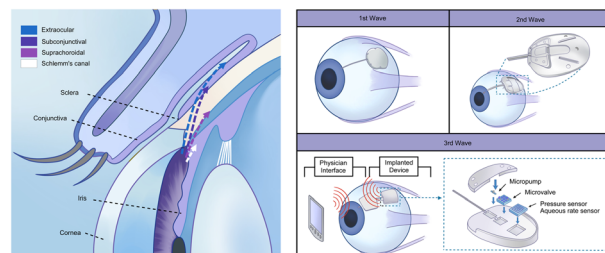
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Microfluidics in the eye: a review of glaucoma implants from an engineering perspective

Zecong Fang, Shuzhen Bi, J. David Brown, Junyi Chen and Tingrui Pan*

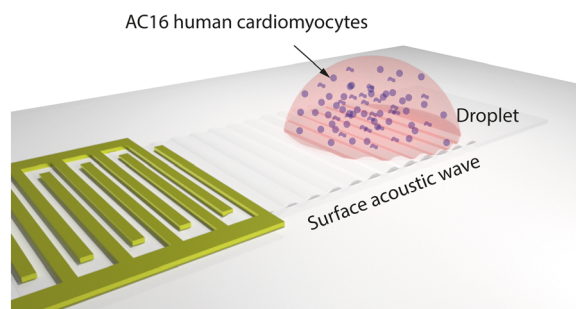


PAPERS

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In-droplet cell lysis of AC16 human cardiomyocyte cells via surface acoustic waves

R. M. Trujillo, G. Almanza, D. Sanchez-Saldaña, Ø. Rosand, M. Høydal, M. Fernandino and C. A. Dorao*



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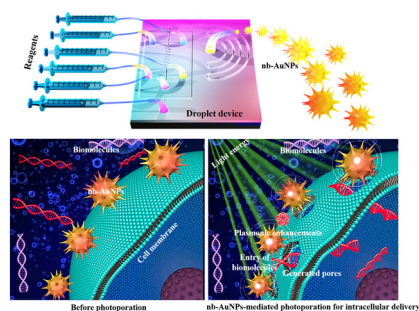


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Microfluidic device-fabricated spiky nano-burflower shape gold nanomaterials facilitate large biomolecule delivery into cells using infrared light pulses

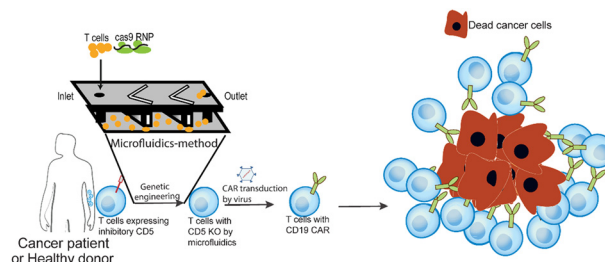
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Development of a microfluidic cell transfection device into gene-edited CAR T cell manufacturing workflow

Tong Yu, Navdeep Jhita, Peter Shankles, Andrew Fedanov, Noah Kramer, Sunil S. Raikar* and Todd Sulchek*



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A new tissue-agnostic microfluidic device to model physiology and disease: the lattice platform

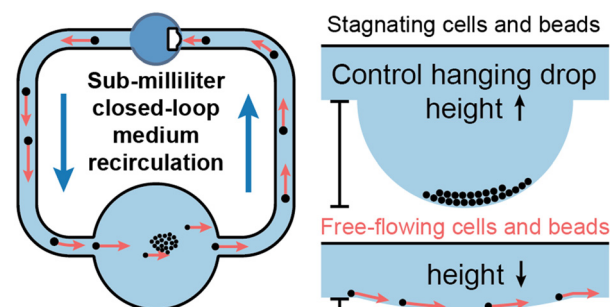
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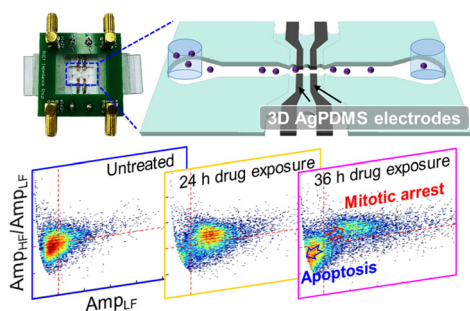
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Controlling bead and cell mobility in a recirculating hanging-drop network

Nassim Rousset*, Martina de Geus, Vittoria Chimisso, Alicia J. Kaestli, Andreas Hierlemann and Christian Lohasz



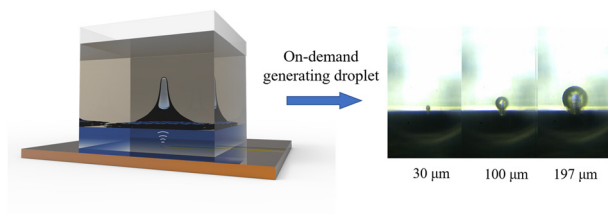
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Single-cell impedance cytometry of anticancer drug-treated tumor cells exhibiting mitotic arrest state to apoptosis using low-cost silver-PDMS microelectrodes

Xinlong Yang, Ziheng Liang, Yuan Luo, Xueyuan Yuan, Yao Cai, Duli Yu and Xiaoxing Xing*

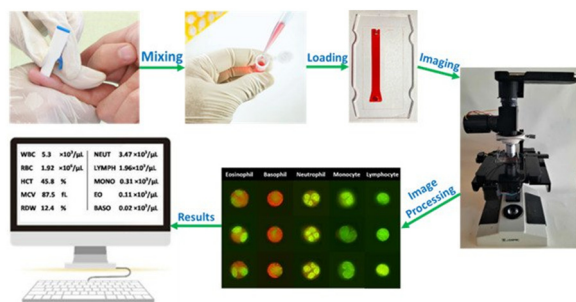
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Pinch-off droplet generator using microscale gigahertz acoustics

Yangchao Zhou, Meihang He, Haitao Zhang, Bohua Liu, Chongling Sun, Ziyu Han* and Xuexin Duan*

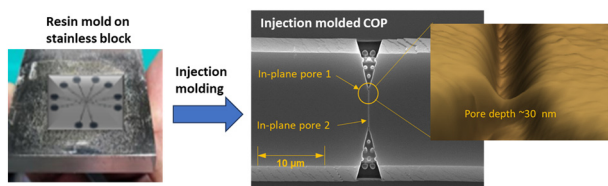
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Comprehensive quantitative analysis of erythrocytes and leukocytes using trace volume of human blood using microfluidic-image cytometry and machine learning

Nima Moradi, Fateme Haji Mohamad Hoseyni, Hassan Hajghassem,* Navid Yarahmadi, Hadi Niknam Shirvan, Erfan Safaie, Mahsa Kalantar, Salma Sefidbakht, Ali Amini and Sebastiaan Eeltink

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Farhad Shiri, Junseo Choi, Chad Vietz, Chathurika Rathnayaka, Anishkumar Manoharan, Suresh Shivanka, Guoqiang Li, Chengbin Yu, Michael C. Murphy, Steven A. Soper* and Sunggook Park*

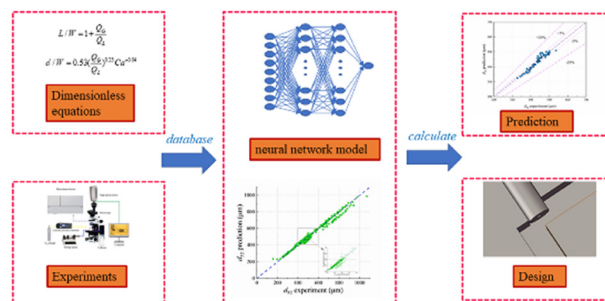


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A general neural network model co-driven by mechanism and data for the reliable design of gas-liquid T-junction microdevices

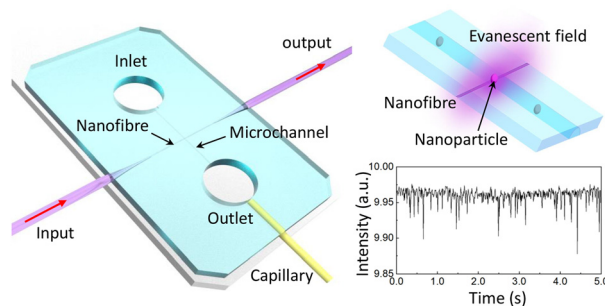
Yu Chang, Lin Sheng, Junjie Wang, Jian Deng and Guangsheng Luo*



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An optical nanofibre-enabled on-chip single-nanoparticle sensor

Ning Liu, Ni Yao, Shipeng Wang, Zhang Zhang, Tanchen Ren, Ying Gao, Xuhao Zhou, Limin Tong and Lei Zhang*



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High-precision rapid testing of omicron SARS-CoV-2 variants in clinical samples using AI-nanopore

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