

Lab on a Chip

Devices and applications at the micro- and nanoscale
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Cover
See Jung Y. Han, Jihoon Ko *et al.*, pp. 2439–2450.
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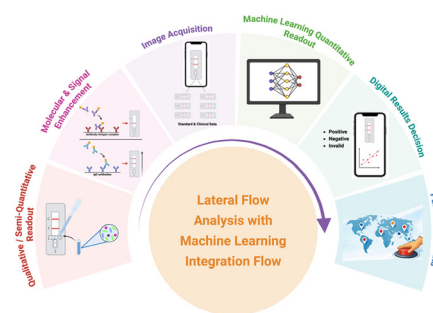
Inside cover
See Ali Salehi-Reyhani *et al.*, pp. 2451–2462.
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CRITICAL REVIEWS

2394

Machine learning-augmented lateral flow assays for point-of-care infectious disease diagnostics

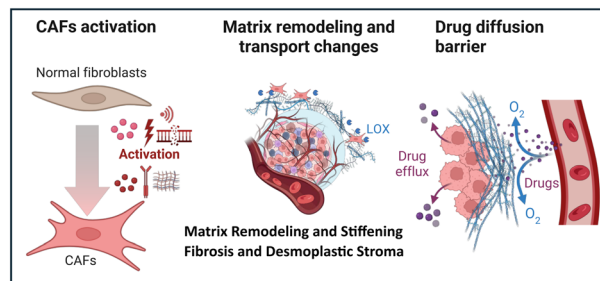
Cagla Parmaksizoglu, Isil Cakiroglu, Nazente Atceken, Eden Morales-Narváez, Ali K. Yetisen and Savas Tasoglu*



2415

Tumor-on-chip platforms for transport phenotyping: decoding CAF-driven barriers to drug delivery

Doriane Le Manach,* Vincent Senez and Matthias Nees*





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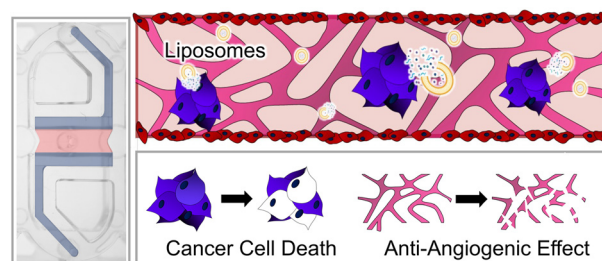


PAPERS

2439

A tumor spheroid array chip for high-fidelity evaluation of liposomal drug delivery through the EPR effect

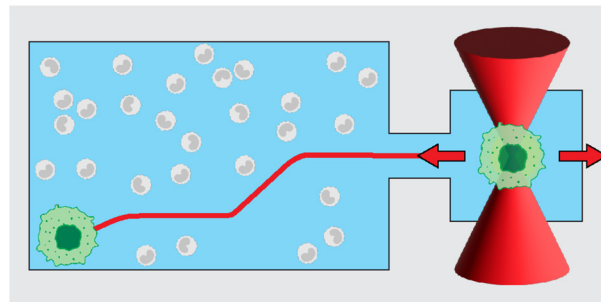
Yedam Lee, Sujin Kim, Hyeeyeon Koh, Yeonwoo Park, Jung Y. Han* and Jihoon Ko*



2451

MaGIC-OT: an AI-guided optical tweezers platform for autonomous single-cell isolation in microfluidic devices

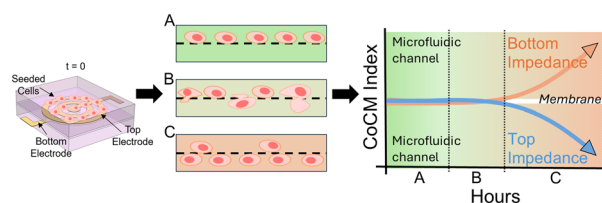
Jan-Philipp Cieslik, Xiaoye Xia and Ali Salehi-Reyhani*



2463

Real-time impedance-based cell migration measurements with integrated electrodes on porous membranes for next generation microphysiological systems

Karina Torres-Castro, Aditya Rane and Darwin R. Reyes*

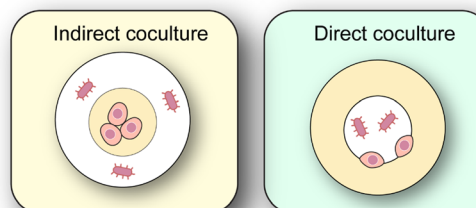


2473

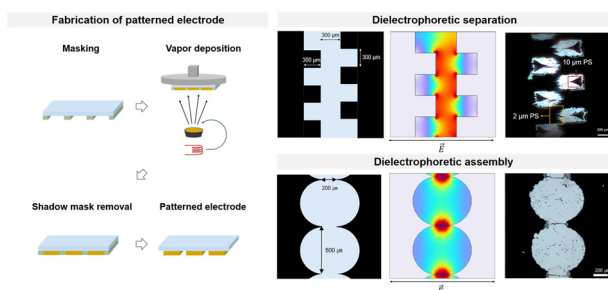
Multiphasic droplet microfluidics platform for controlled bacteria and mammalian cell co-culture

Ibraheem Alshareedah and Anand Kumar*

Phase Separation + Microfluidics



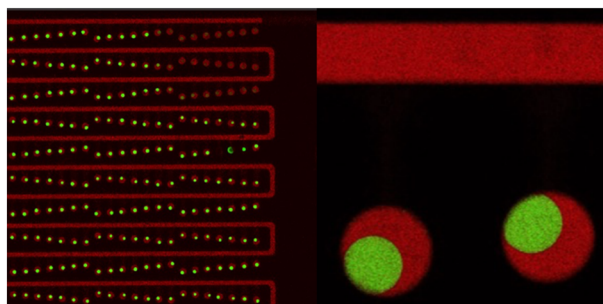
2486



Directed dielectrophoretic assembly and separation on microelectrodes patterned *via* stereolithography 3D-printed shadow masks

Eunhwa Jo, Chanwook Cha, Yeongjun Kim, Jeongjae Seo, Eun Jung Lee and Koohee Han*

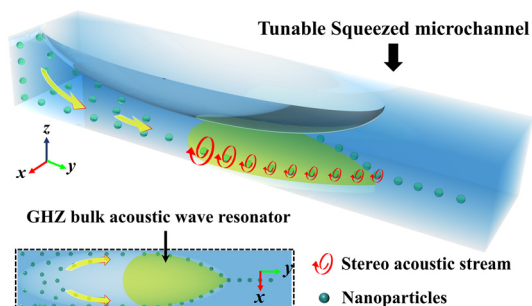
2495



A microfluidic method for controlled generation and trapping of membraneless water-in-water droplets

Chi Li, Hailin Fu,* Kalpit J. Bakal, Jaap M. J. den Toonder, E. W. Meijer, Sailing He* and Hans M. Wyss*

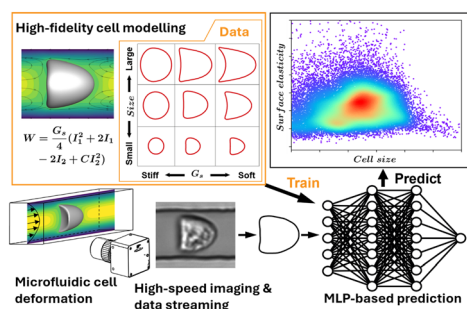
2506



Tunable squeeze-activated GHz acoustofluidics for stable trapping and separation of sub-100 nm nanoparticles

Yiming Liu, Wei Wei, Hang Qi, Shuaihua Zhang, Yongqi Chen, Yaping Wang* and Xuexin Duan*

2514



Real-time high-throughput characterisation of the surface elasticity of suspended cells

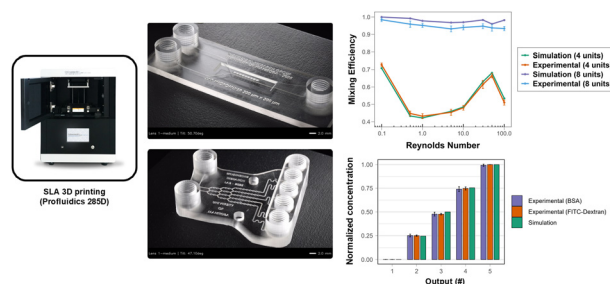
Ziyu Guo, Yi Sui* and Wen Wang



2531

Monolithic 3D-printed split-and-recombine micromixer integrated into a microfluidic concentration gradient generator

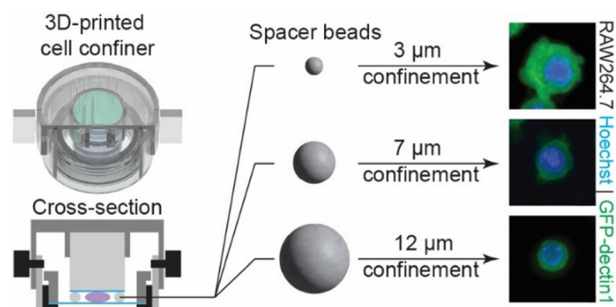
Francisco Navarro Molina, Jitendra Paliwal and Elham Salimi*



2543

A customizable, low-cost 3D-printed device for live cell confinement imaging

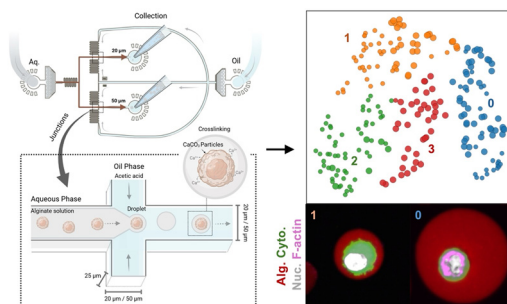
Hunter Richman, Jin Ou, Manpreet Khara and Yan Yu*



2554

Machine learning-driven single-cell phenotyping in size-controlled microenvironments via parallel deterministic droplet microfluidics

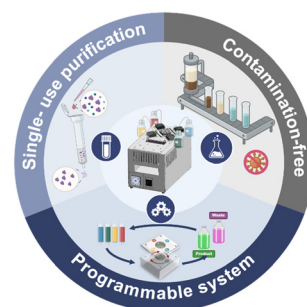
Sangmin Lee, Steven O'Donnell, Zhangli Peng and Jae-Won Shin*



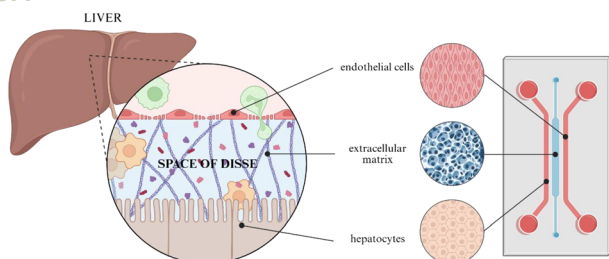
2565

Digitally programmable microfluidic valving for autonomous, high-resolution continuous chromatographic purification

Yi-Cheng Liao, Chih-Yi Huang, Yu-Chuan Tang, Cheng-Hsian Wu, Yu-Hsuan Chi, I-Wei Chen, Hsuan-Yu Mu, Ya-Hui Lin, Yunching Chen, Fu-Fei Hsu and Jen-Huang Huang*



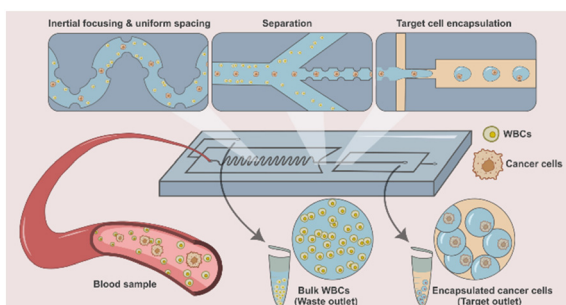
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In vitro space of Disse model for exploration of drug induced hepatotoxicity

Ana Mesic,* Antonietta Messina, Zoe Tiprez, Benoit Charlot, Safa Mohamed Ismail, Nicolas Huang, Sakina Bensalem, Jean-Charles Duclos-Vallee and Bruno Le Pioufle

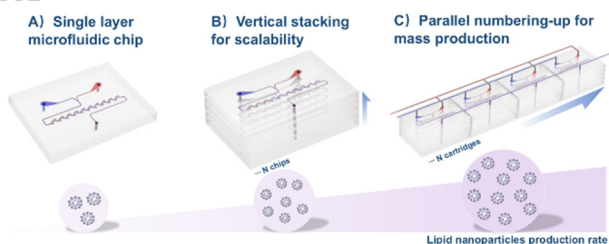
2589



Integrated microfluidic platform for inertial separation and encapsulation of single cells in droplets

Fariba Malekpour Galogahi, Haotian Cha, Sharda Yadav, Hang Thu Ta and Nam-Trung Nguyen*

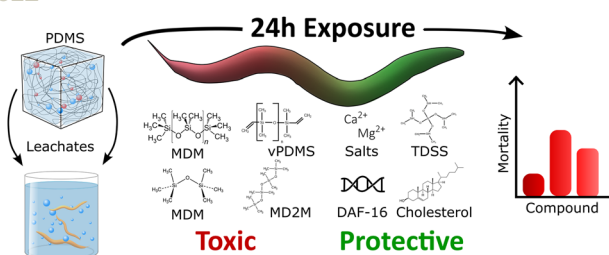
2601



Vertical numbering-up microfluidic architecture for scalable and homogeneous lipid nanoparticle production

Zhaoyu Zhang, Jaejeung Kim, Jinwoo Hwang, Hyunjo Seo, Geonha Kim, Seoyeon Choi, Kyung-A Hyun and Hyo-Il Jung*

2612



PDMS aqueous leachates cause acute toxicity in *C. elegans*

Kin Gomez, Kirill Efimenko, Jan Genzer and Adriana San-Miguel*



CORRECTION

2622

Correction: Cell docking inside microwells within reversibly sealed microfluidic channels for fabricating multiphenotype cell arrays

Ali Khademhosseini, Judy Yeh, George Eng, Jeffrey Karp, Hirokazu Kaji, Jeffrey Borenstein, Omid C. Farokhzad and Robert Langer*

