

Lab on a Chip

Devices and applications at the micro- and nanoscale
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See W. Russ Algar *et al.*,
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PERSPECTIVES

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Point-of-need diagnostics in a post-Covid world: an opportunity for paper-based microfluidics to serve during syndemics

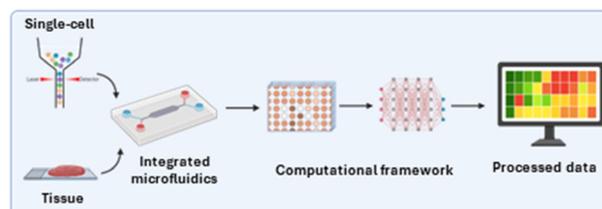
Maria-Nefeli Tsaloglou,* Dionysios C. Christodouleas, Jonathan Milette, Kendall Milkey, Isabelle C. Romine, Judy Im, Shefali Lathwal, Durairajandian Thava Selvam, Hadley D. Sikes and George M. Whitesides*



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Microfluidics for morphomics and spatial omics applications

Nishanth Venugopal Menon, Jeeyeon Lee, Tao Tang and Chwee Teck Lim*



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Fundamental questions
Elemental answers

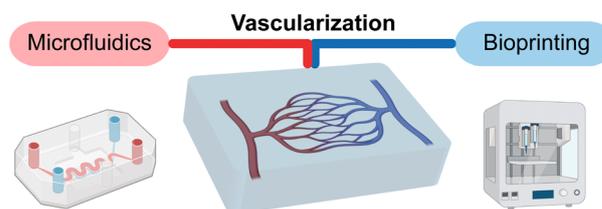
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Integrating microfluidic and bioprinting technologies: advanced strategies for tissue vascularization

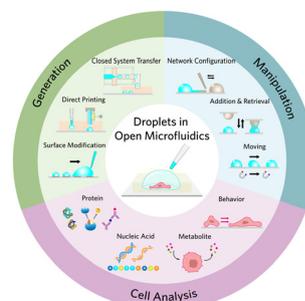
Xuan Mei, Ziyi Yang, Xiran Wang, Alan Shi, Joel Blanchard, Fanny Elahi, Heemin Kang,* Gorka Orive* and Yu Shrike Zhang*



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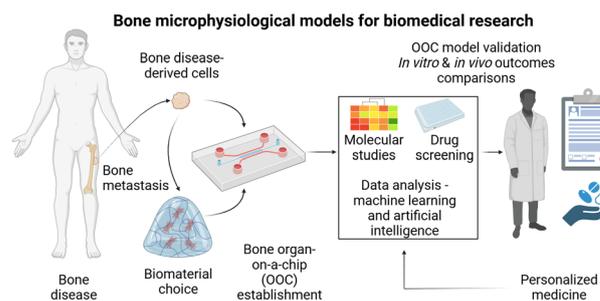
Jiaxu Lin, Ying Hou, Qiang Zhang and Jin-Ming Lin*



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Bone microphysiological models for biomedical research

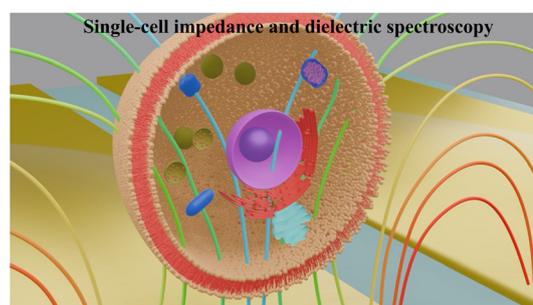
Francisco Verdugo-Avello,* Jacek K. Wychowaniec, Carlos A. Villacis-Aguirre, Matteo D'Este and Jorge R. Toledo



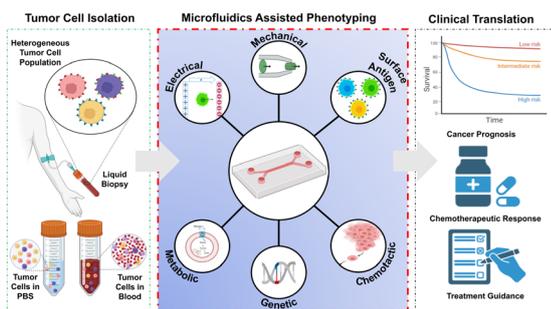
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Fatemeh Dadkhah Tehrani, Michael D. O'Toole* and David J. Collins



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Rutwik Joshi, Hesaneh Ahmadi, Karl Gardner, Robert K. Bright, Wenwen Wang and Wei Li*

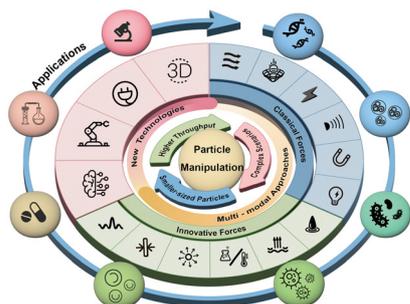
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Smartphones as a platform for molecular analysis: concepts, methods, devices and future potential

Daina V. Baker, Jasmine Bernal-Escalante, Christine Traaseth, Yihao Wang, Michael V. Tran, Seth Keenan and W. Russ Algar*

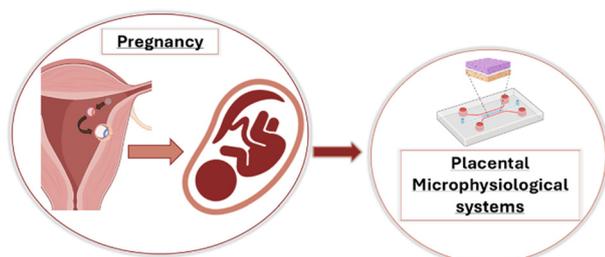
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Placental microphysiological systems: new advances on promising platforms that mimic the microenvironment of the human placenta

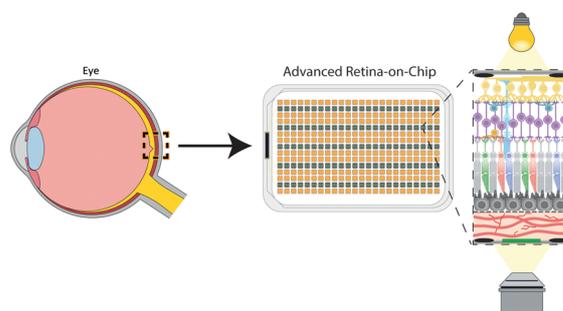
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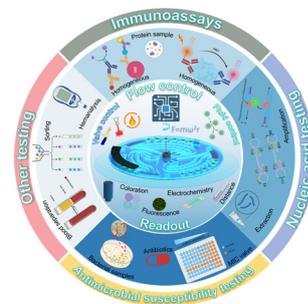
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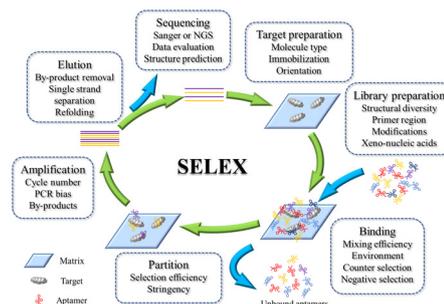
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Aptamer selection *via* versatile microfluidic platforms and their diverse applications

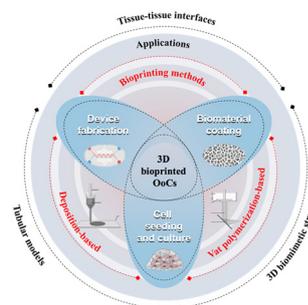
Yi-Da Chung, Yi-Cheng Tsai, Chi-Hung Wang and Gwo-Bin Lee*



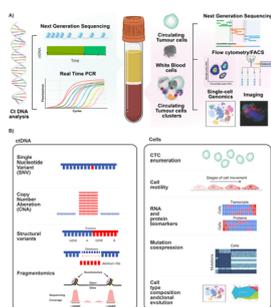
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Developing 3D bioprinting for organs-on-chips

Zuhao Wu, Rui Liu, Ning Shao and Yuanjin Zhao*



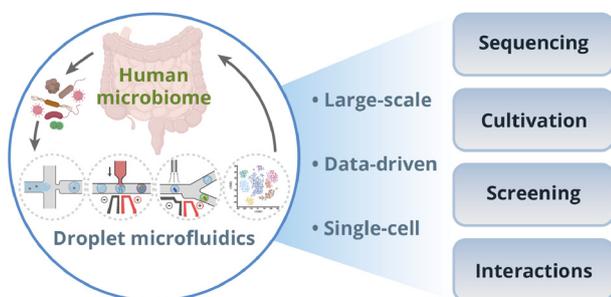
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Robert Salomon,* Sajad Razavi Bazaz, Kirk Mutafooulos, David Gallego-Ortega, Majid Warkiani, David Weitz and Dayong Jin

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Yibin Xu, Zhiyi Wang, Caiming Li, Shuiquan Tian and Wenbin Du*

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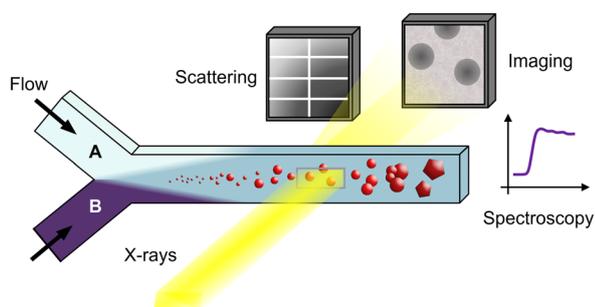


and Organs-on-Chip

Microsensor systems for cell metabolism – from 2D culture to organ-on-chip (2019–2024)

Johannes Dornhof, Jochen Kieninger, Stefan J. Rupitsch and Andreas Weltin*

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Mark A. Levenstein,* Corinne Chevillard, Florent Malloggi, Fabienne Testard and Olivier Taché

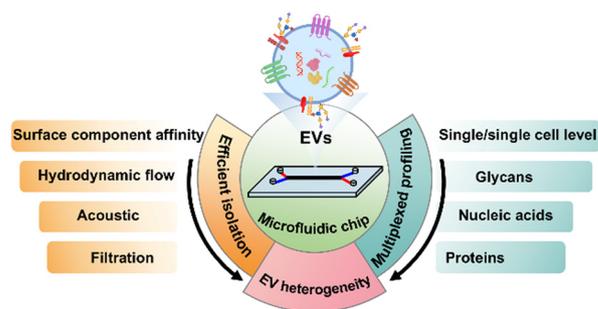


CRITICAL REVIEWS

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Demystifying EV heterogeneity: emerging microfluidic technologies for isolation and multiplexed profiling of extracellular vesicles

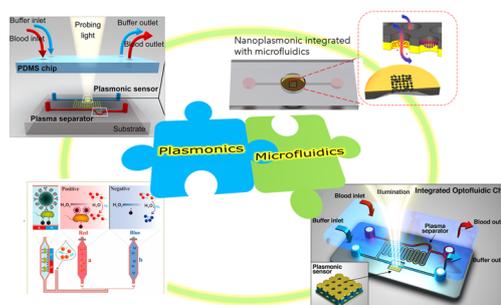
Guihua Zhang, Xiaodan Huang, Sinong Liu, Yiling Xu, Nan Wang, Chaoyong Yang and Zhi Zhu*



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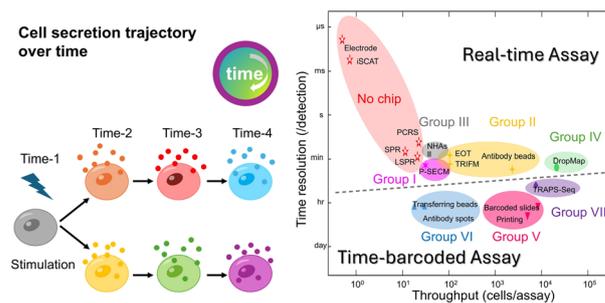
C. Escobedo* and A. G. Brolo*



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Time-resolved single-cell secretion analysis via microfluidics

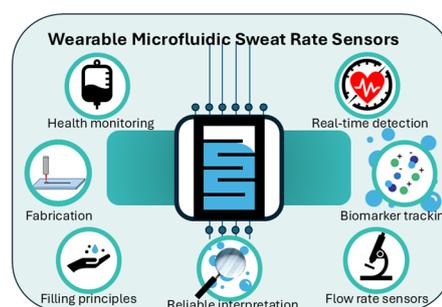
Ying Xu, Mei Tsz Jewel Chan, Ming Yang, Heixu Meng and Chia-Hung Chen*



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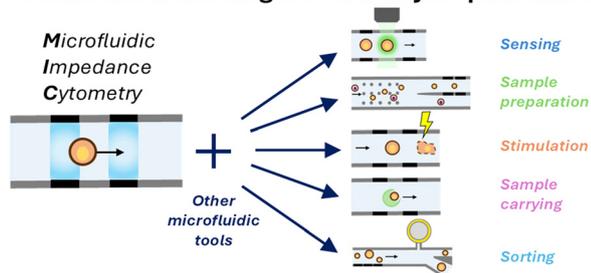
Worth your sweat: wearable microfluidic flow rate sensors for meaningful sweat analytics

R. F. R. Ursem, A. Steijlen,* M. Parrilla,* J. Bastemeijer, A. Bossche and K. De Wael*



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Multifunctional single-cell analysis platforms

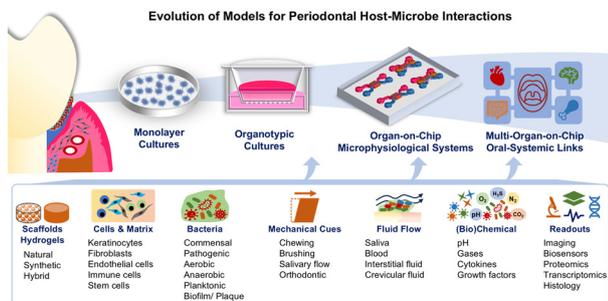


Integrating impedance cytometry with other microfluidic tools towards multifunctional single-cell analysis platforms

Marta Righetto, Cristian Brandi, Riccardo Reale and Federica Caselli*

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Advances in modeling periodontal host-microbe interactions: insights from organotypic and organ-on-chip systems

Hardik Makkar and Gopu Sriram*

