

Zida Li, Ph.D.

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Education

University of Michigan, Ann Arbor	Ann Arbor, MI
Ph.D., Mechanical Engineering	Aug. 2013 – Apr. 2018
Dissertation: <i>Micro-Engineered Devices for Point-of-Care Blood Clot Retraction Testing</i>	
Advisor: Prof. Jianping Fu	
University of Science and Technology of China	Hefei, Anhui, China
B.Eng., Mechanical Engineering	Aug. 2008 – June 2012
Advisor: Prof. Liquan He	
Tsinghua University	Beijing, China
Exchange Program – C9 University League	Sept. 2010 – Feb. 2011

Positions and Employment

Shenzhen University	Shenzhen, China
Assistant Professor, Biomedical Engineering	June 2018 – present
University of Michigan, Ann Arbor	Ann Arbor, MI
Graduate Student Research Assistant, Mechanical Engineering	Sept. 2013 – Apr. 2018
Graduate Student Teaching Assistant, Mechanical Engineering	Sept. 2014 – Apr. 2018
University of Hong Kong	Hong Kong
Research Assistant, Mechanical Engineering	Aug. 2012 – June 2013
Advisor: Prof. Anderson Ho Cheung Shum	

Peer Reviews

- Scientific Reports ▪ IEEE Transactions in Nanotechnology ▪ Applied Sciences ▪ Micromachines
- Engineering ▪ Design of Medical Devices Conference 2018 ▪ Biomicrofluidics

Awards

- Baxter Young Investigator Award First-Tier, Baxter Healthcare Inc. (2016)
- Provincial Honored Graduate, Department of Education, Anhui Province, China (2012)
- National Scholarship, Ministry of Education, China (2011)

Journal Publications

#co-first authors; *co-corresponding authors.

- [1] Xue Chen, Nicolo Simone Villa, Yanfeng Zhuang, Linzhe Chen, Tianfu Wang, **Zida Li***, and Tiantian Kong* (2019). Stretchable supercapacitors as emergent energy storage units for health monitoring bioelectronics. *Advanced Energy Materials*, Under Review.
- [2] Feng Lin, Xufeng Xue, Yue Shao, Yi Zheng, **Zida Li**, Chunyang Xiong*, and Jianping Fu* (2019). Emergent Primitive Streak Cell Patterning in Micropatterned Human Embryonic Stem Cell Colony. *Biomaterials*, Under Review.
- [3] Yi Zheng, Xufeng Xue, Yue Shao, Sicong Wang, Sajedah Nasr Esfahani, **Zida Li**, Jonathon M. Muncie, Johnathon N. Lakins, Valerie M. Weaver, Deborah L. Gumucio, and Jianping Fu (2019). Controlled modeling of human epiblast and amnion development using stem cells. *Nature*, In Press. DOI: 10.1038/s41586-019-1535-2
- [4] Yuanyuan Zheng#, Xufeng Xue#, Agnes M. Resto Irizarry, **Zida Li**, Yue Shao, Yi Zheng, Gang Zhao*, and Jianping Fu* (2019). A patterned model for neural tube development studies by human embryonic stem cells in a biomimetic niche. *Science Advances*, In Press.
- [5] Sajedah Nasr Esfahani, Yue Shao, Agnes M Resto Irizarry, **Zida Li**, Xufeng Xue, Deborah L Gumucio, and Jianping Fu (2019). Microengineered human amniotic ectoderm tissue array for high-content developmental phenotyping. *Biomaterials*, 216, 119244.
- [6] Luoquan Li#, Ping Wu#, Zhaofeng Luo, Lei Wang, Weiping Ding, Tao Wu, Jinyu Chen, Jinlong He, Ying Chen, Guibo Li, **Zida Li***, and Liqun He* (2019). Dean flow assisted single cell and bead encapsulation for high performance single cell expression profiling. *ACS Sensors*, 4(5), 1299-1305.
- [7] **Zida Li***, Luoquan Li, Meixiang Liao, Liqun He, and Ping Wu* (2019). Multiple splitting of droplets using multi-furcating microfluidic channels. *Biomicrofluidics*, 13(2), 024112.
- [8] Feng Lin, Yue Shao, Xufeng Xue, Yi Zheng, **Zida Li**, Chunyang Xiong, Jianping Fu (2019). Biophysical phenotypes and determinants of anterior vs. posterior primitive streak cells derived from human pluripotent stem cells. *Acta Biomaterialia*, 86, 125-134
- [9] **Zida Li**, Yize Wang, Xufeng Xue, Brendan McCracken, Kevin Ward, and Jianping Fu (2018). Carbon nanotube strain sensor based hemoretractometer for blood coagulation testing. *ACS Sensors*, 3(3), 670-676.
- [10] **Zida Li**, Xufeng Xue, Feng Lin, Yize Wang, Kevin Ward, and Jianping Fu (2017). Capillary-assisted coating of carbon nanotube thin film as a strain gauge. *Applied Physics Letters*, 111(17), 173105.
- [11] Koh Meng Aw Yong, **Zida Li**, Sofia D. Merajver, and Jianping Fu (2017). Analysis of tumor invasion front using long-term fluidic tumoroid culture. *Scientific Reports*, 7(1), 10784.
- [12] Xufeng Xue, Xiaowei Hong, **Zida Li**, Cheri X. Deng, and Jianping Fu (2017). Acoustic tweezing cytometry enhances osteogenesis of human mesenchymal stem cells through cytoskeletal contractility and YAP activation. *Biomaterials*, 134, 22-30.
- [13] Jianming Sang, Xiang Li, Yue Shao, **Zida Li**, and Jianping Fu (2016) Controlled tubular unit formation from collagen film for modular tissue engineering. *ACS Biomaterials Science & Engineering*, 3(11), 2860-2868.
- [14] **Zida Li**, Xiang Li, Brendan McCracken, Yue Shao, Kevin Ward, and Jianping Fu (2016). A miniaturized hemoretractometer for blood clot retraction testing. *Small*, 12(29), 3926-3934.
- [15] Ping Wu, Zhaofeng Luo, Zhifeng Liu, **Zida Li**, Chi Chen, Lili Feng, and Liqun He (2015). Drag-induced breakup mechanism for droplet generation in dripping within flow focusing microfluidics. *Chinese Journal of Chemical Engineering*, 23(1), 7-14.

- [16] **Zida Li**, Sze Yi Mak, Alban Sauret, and Ho Cheung Shum (2014). Syringe-pump-induced fluctuation in all-aqueous microfluidic system implications for flow rate accuracy. *Lab on a Chip*, 14(4), 744-749.
- [17] Sze Yi Mak, **Zida Li**, Arnaud Frere, Tat Chuen Chan, and Ho Cheung Shum (2014). Musical Interfaces: Visualization and Reconstruction of Music with a Microfluidic Two-Phase Flow. *Scientific Reports*, 4, 6675.
- [18] Xiang Li, Weiqiang Chen, **Zida Li**, Ling Li, Hongchen Gu, and Jianping Fu (2014). Emerging microengineered tools for functional analysis and phenotyping of blood cells. *Trends in Biotechnology*, 32(11), 586-594.

Book Chapters

- [1] **Zida Li*** and Anderson Ho Cheung Shum* (2019). Nanotechnology and microfluidics for biosensing and biophysical property assessment: implications for next generation in vitro diagnostics. *Nanotechnology and Microfluidics*, John Wiley & Sons, In Press.

Patents

- [1] Jianping Fu, Kevin Ward, **Zida Li**, and Xiang Li. (2017). A microscale device for blood coagulation assay. *U.S. Patent Application* 62/304,385.
- [2] Ho Cheung Shum, Alban Sauret, **Zida Li**, and Yang Song. (2013). System and method for generation of emulsions with low interfacial tension and measuring frequency of vibrations in the system. *U.S. Patent Application* 13/839,072.

Conference Presentations

- [1] Dean flow assisted single cell and bead encapsulation for high performance single cell expression profiling. **Panel Speech**. *IMCO 2019*, Hong Kong, June 2019.
- [2] Capillary-facilitated coating of carbon nanotube thin film as a strain gauge for blood retraction testing. **Poster Presentation**. *MicroTAS 2017*, Savannah, GA, USA, Oct 2017.
- [3] Capillary-assisted coating of carbon nanotube thin film for blood retraction testing. **Panel Speech**. *BMES 2017*, Phoenix, AZ, USA, Oct 2017.
- [4] A miniaturized hemoretractometer for blood clot retraction testing. **Panel Speech**. *8th International Symposium on Microchemistry and Microsystems*, Hong Kong, May 2016.