

## CURRICULUM VITAE

**Li He, Ph.D.**

**Professor**

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### Education

**Ph.D. (08/2006-04/2012)**

Department of Biological Chemistry, Johns Hopkins School of Medicine.

**M.S. (08/2003-07/2006)**

Department of Bioscience and Biotechnology, Tsinghua University, China.

**B.A. (08/1999-07/2003)**

Department of Chemistry, Tsinghua University, China

### Professional Experience

**Professor (08/2019-)** School of Life Science, University of Science and Technology of China

**Postdoctoral Research Fellow (05/2012-08/2019)** Department of Genetics, Harvard Medical School, Howard Hughes Medical Institute.

### Scholarships and Awards

Damon Runyon Cancer Research Awards (2012-2016)

Johns Hopkins Mette Strand Young Investigator Award (2011)

### Reviewing

*Ad hoc* reviewer for: *Developmental Biology, Genetics, Development Growth and Differentiation, Molecular and Cellular Biochemistry, Biochemical Journal, Cell Biology International, PLOS ONE, Human Genetics, Mechanisms of Development, Apoptosis, Biomarkers in Cancer, Biomedical Engineering and Computational Biology, Molecular Immunology, PNAS.*

### Selected Publication

1. **He, L.\***, Huang, J., Binari, R., Falo, J., and Perrimon, N. Enhanced dual-color fluorescent transcriptional reporters for in vivo study of signaling dynamics. *Elife*, 2019 (\*1<sup>st</sup> and corresponding author)
2. **He, L.\***, Si, G., Huang, J., Samuel, A., and Perrimon, N. (2018) Mechanical regulation of stem-cell differentiation by the stretch-activated Piezo channel. *Nature* 555, 103-106. (\*1<sup>st</sup> and corresponding author)
3. **He, L.**, Huang, J., and Perrimon, N. (2017) Development of an optimized synthetic Notch receptor as an in vivo cell-cell contact sensor. *Proceedings of the National Academy of Sciences* 114, 5467-5472.
4. **He, L.\***, Wang, X.\*, Tang, H. L., and Montell, D. (2010) Tissue elongation requires oscillating contractions of a basal actomyosin network. *Nature Cell Biology* 12, 1133-1142. (\*equal contribution, Cover Story)
5. Wang, X.\*, **He, L.\***, Wu, Y. I., Hahn, K. M., and Montell, D. (2010) Light-mediated activation reveals a key role for Rac in collective guidance of cell movement in vivo. *Nature Cell Biology* 12, 591-597. (\*equal contribution)

### Research Paper

6. Hunter, G. L., **He, L.**, Perrimon, N., Charras, G., Giniger, E., and Baum, B. (2018) A role for actomyosin contractility in Notch signaling. *BMC Biology*. November 2019.

7. Parasram, K, Bernardon, N, Hammoud, M, Chang, H, **He, L**, Perrimon, N, Karpowicz, P. Intestinal Stem Cells Exhibit Conditional Circadian Clock Function. *Stem Cell Reports*. 2018 Nov 13;11(5):1287-1301.
8. Xu, C., Luo, J., **He, L.**, Montell, C., and Perrimon, N. (2017) Oxidative stress induces stem cell proliferation via TRPA1/RyR-mediated Ca<sup>2+</sup> signaling in the Drosophila midgut. *eLife* 6, e22441.
9. Hunter, G. L., Hadjivasiliou, Z., Bonin, H., **He, L.**, Perrimon, N., Charras, G., and Baum, B. (2016) Coordinated control of Notch/Delta signalling and cell cycle progression drives lateral inhibition-mediated tissue patterning. *Development* 143, 2305-2310.
10. Chen, C.-L., Hu, Y., Udeshi, N. D., Lau, T. Y., Wirtz-Peitz, F., **He, L.**, Ting, A. Y., Carr, S. A., and Perrimon, N. (2015) Proteomic mapping in live Drosophila tissues using an engineered ascorbate peroxidase. *Proceedings of the National Academy of Sciences* 112, 12093-12098.
11. Gordon, W. R., Zimmerman, B., **He, L.**, Miles, L. J., Huang, J., Tiyanont, K., McArthur, D. G., Aster, J. C., Perrimon, N., Loparo, J. J., and Blacklow, S. C. (2015) Mechanical allostery: evidence for a force requirement in the proteolytic activation of Notch. *Developmental Cell* 33, 729-736.
12. Koride, S., **He, L.**, Xiong, L.-P., Lan, G., Montell, D. J., and Sun, S. X. (2014) Mechanochemical regulation of oscillatory follicle cell dynamics in the developing Drosophila egg chamber. *Molecular Biology of the Cell* 25, 3709-3716.
13. Cai, D., Chen, S.-C., Prasad, M., **He, L.**, Wang, X., Choesmel-Cadamuro, V., Sawyer, J. K., Danuser, G., and Montell, D. J. (2014) Mechanical feedback through E-cadherin promotes direction sensing during collective cell migration. *Cell* 157, 1146-1159. (Cover Story)
14. Sawyer, J. K., Choi, W.\*, Jung, K.-C.\*, **He, L.\***, Harris, N. J., and Peifer, M. (2011) A contractile actomyosin network linked to adherens junctions by Canoe/afadin helps drive convergent extension. *Molecular Biology of the Cell* 22, 2491-2508. (\*equal contribution)
15. **He, L.**, Lv, J., Zhou, Q., and Sui, S. (2006) Lipid rafts identified on synaptic vesicles from rat brain. *Tsinghua Science and Technology* 11, 452-458.

### **Review/Book Chapters**

1. Ahmad, M, **He, L**, Perrimon, N. Regulation of insulin and adipokinetic hormone/glucagon production in flies. *Wiley Interdiscip Rev Dev Biol*. 2019
2. **He, L.**, Ahmad, M., Perrimon, N., Mechanosensitive channels and their functions in stem cell differentiation. October 2018 *Experimental Cell Research* 374(2)
3. Prasad, M., Wang, X., **He, L.**, Cai, D., and Montell, D. J. (2015) Border cell migration: a model system for live imaging and genetic analysis of collective cell movement. *Drosophila Oogenesis. Methods in Molecular Biology*, vol 1328. Humana Press, New York, NY. pp 89-97.
4. **He, L.** and Montell, D. (2012) A cellular sense of touch. *Nature Cell Biology (News and Views)* 14, 902-903.
5. **He, L.**, Wang, X., and Montell, D. J. (2011) Shining light on Drosophila oogenesis: live imaging of egg development. *Current Opinion in Genetics & Development* 21, 612-619.
6. Prasad, M., Wang, X., **He, L.**, and Montell, D. J. (2011) Border cell migration: a model system for live imaging and genetic analysis of collective cell movement. *Cell Migration. Methods in Molecular Biology (Methods and Protocols)*, vol 769. Humana Press, New York, NY. pp 277-286.
7. Wu, Y. I., Wang, X., **He, L.**, Montell, D., and Hahn, K. M. (2011) Spatiotemporal control of small GTPases with light using the LOV domain. *Methods in Enzymology* 497, 393-407.