

Curriculum Vita

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Education and training

- 2008 Postdoc fellow, Cell Biology, School of Medicine, Johns Hopkins University, Baltimore, MD
- 2007 Ph.D., Materials Science and Engineering, Johns Hopkins University, Baltimore, MD
- 2002 M.S., Mechanical Engineering, Johns Hopkins University, Baltimore, MD
- 2000 B.S., Mechanics and Mechanical Engineering, University of Science and Technology of China, Hefei, China

Dissertation

“In situ stress measurement of thin film growth by electrochemical deposition: the correlations among stress, morphology and microstructures”.

Advisor: Professor Robert C. Cammarata

Publications

1. Sun Q., Luo T., Ren Y., Florey O., Shirasawa S., Sasazuki T., Vakiani E., Solit D. B., Cibas E. S., Hodgson L., Robinson D. N., and Overholtzer M. Competition between human cells by entosis. (in revision by Developmental Cell)
2. Luo T. The force-sharing among actin cytoskeleton proteins. Comp. Struct. Biotech. J. 2014. (invited review)
3. Luo T., Mohan K., Srivastava V., Iglesias P.A. and Robinson D.N. The molecular landscape of mechanosensing by the cell cortex. Nat. Mat., 2013. (conditionally accepted)

4. Luo T., Mohan K., Srivastava V., Ren Y., Iglesias P.A. and Robinson D.N. Understanding the cooperative interaction between myosin II and actin crosslinkers mediated by actin Filaments during mechanosensation. *Biophys. J.* 2012; 102:238-247.
5. Robinson D.N., Kee Y.S., Luo T., Surcel A. Understanding how dividing cells change shape. In Egelman EH (ed.) *Comprehensive Biophysics*, 2012; 7: 48-72
6. Luo T. and Robinson D.N. The role of the actin cytoskeleton in mechanosensation. Kamkin A. and Kiseleva I. eds. *Mechanosensitivity in cells and tissues: mechanosensitivity and mechanotransduction*, 2011; 4:25-65.
7. Surcel A, Kee YS, Luo T., Robinson D.N. Cytokinesis through biochemical-mechanical feedback loops. *Seminars in cell and developmental biology* 2010; 21: 866-873.
8. Luo T., Guo L. and Cammarata R. Real-time intrinsic stress generation during Volmer–Weber growth of Co by electrochemical deposition. *J. Crys. Growth.* 2010; 312: 1267-1270.
9. Ren Y, Effler J.C., Norstrom M, Luo T., Firtel R.A., Iglesias P.A., Rock R.S. and Robinson D.N. Mechanosensing through cooperative interactions between myosin II and the actin crosslinker cortexillin I. *Curr. Biol.* 2009; 19:1421-1428

Invited talks

1. Luo T. and Robinson D.N. "The molecular landscape of mechanosensing by the cell cortex", Engineering Mechanics Institute Conference, Evanston, August, 2013.
2. Luo T., Mohan K., Srivastava V., Iglesias P.A. and Robinson D.N. "A mechanobiological feedback model for the oscillations of myosin II and cell shape in epithelia", Society of Engineering Science 50th Annual Technical Meeting, Providence, July, 2013.
3. Luo T. and Robinson D.N., " Engineering the mechanosensory modules in *Dictyostelium* cells", Dictyostelium Meeting, Baltimore, August, 2011.
4. Luo T. and Robinson D.N., " Learning cellular self-defense from artificial cells", Materials Research Society Meeting, Boston, December, 2010.
5. Luo T. and Robinson D.N., " Cellular self-defense through cooperative interactions between myosin II and actin cross-linking proteins during cellular deformation", 16th US National Congress of Theoretical and Applied Mechanics, State College, July, 2010.
6. Luo T. and Robinson D.N., " Cooperative interactions between myosin II and cortexillin I mediated by actin filaments during cellular deformation", 26th Southern Biomedical Engineering Conference, College Park, April, 2010.

7. Luo T. and Robinson D.N., " Cooperative interactions between myosin II and actin cross-linking proteins to actin filaments", Biophysical Society 54th Annual Meeting, San Francisco, February, 2010.
8. Luo T. and Robinson D.N., " Reconstitution of actin cytoskeleton in artificial cells", Materials Research Society Meeting, Boston, November, 2009.
9. Luo T., Guo L., Searson P.C. and Cammarata R.C., " Self-patterning of islands during electrochemical deposition by mechanical constraints", Materials Research Society Meeting, Boston, November, 2007.
10. Luo T., Tang L., Sieradzki K. and Cammarata R.C., " Stress generation and relaxation mechanisms for thin film growth by electrochemical deposition", the 212th Meeting of the Electrochemical Society, Washington DC, October, 2007.
11. Luo T. and Cammarata R.C., " In situ monitoring of the stress evolution during electrochemical deposition of thin films", Materials Research Society Meeting, Boston, November, 2006.
12. Luo T. and Cammarata R.C., " Internal stress generation during electrochemical deposition of Volmer-Weber thin films", American Physics Society Meeting, Baltimore, March, 2006.

Memberships

1. American Society of Cell Biology
2. Materials Research Society
3. Biophysical Society
4. American Physics Society
5. The Electrochemical Society

Professionalships

1. Journal reviewers for Biophysical Journal, and Cellular and Molecular of Life Sciences, Current Biology, and Southern Medical Journal.
2. Session chairs of 2013 Society of Engineering Science 50th Annual Technical Meeting and 2011 Dictyostelium Meeting