Stephanie C. Weber

Assistant Professor
Department of Biology
McGill University

Stewart Biology Building, W5/15
1205 Avenue Docteur Penfield
Montreal, QC H3A 1B1
steph.weber@mcgill.ca
http://stephweber.net

Education

Ph.D. Biochemistry, Stanford University 2011

B.S. Biology, B.S. Chemistry, *summa cum laude*, Duke University 2006

Research Experience

Postdoctoral fellow with Cliff Brangwynne, Princeton University 2011-2015
An intracellular phase transition couples nucleolar size with cell size in early C. elegans *embryos*

Graduate student with Julie Theriot, Stanford University 2007-2011
Macromolecular motion in vivo: *anomalous diffusion through an "active" viscoelastic medium*

Honors, Awards and Fellowships

Damon Runyon Postdoctoral Fellowship 2012-2015

Jane Coffin Childs Memorial Fund Postdoctoral Fellowship (declined) 2012

Life Sciences Research Foundation Postdoctoral Fellowship (declined) 2012

Bioengineering Outstanding Teaching Assistant Award 2011

Harold M. Weintraub Graduate Student Award 2011
National award recognizing outstanding achievement in graduate studies in the biological sciences

NSF Graduate Research Fellowship 2008-2011

Graduation with Distinction in Biology, Chemistry 2006

Faculty Scholar Award 2005
Highest honor bestowed upon a Duke undergraduate recognizing intellectual leadership and scholarly accomplishment

Phi Beta Kappa 2005

Deans' Summer Research Fellowship 2005

GEBS/NSF REU Summer Scholars Program 2004

Howard Hughes Research Fellows Program 2003

Publications

Uppaluri, S., **Weber, S. C.**, and Brangwynne, C. P. (2016) Hierarchical size scaling during multicellular growth and development, *Cell Reports*, In press.

Berry, J. M.*, **Weber, S. C.***, Vaidya, N., Haataja, M. and Brangwynne, C. P. (2015) RNA transcription modulates phase transition-driven nuclear body assembly, *Proceedings of the National Academy of Sciences*, 112, E5237. *Co-first authors.

Weber, S. C., and Brangwynne, C. P. (2015) Inverse size scaling of the nucleolus by a concentration-dependent phase transition, *Current Biology*, 25, 641.

Weber, S. C., and Brangwynne, C. P. (2012) Getting RNA and protein in phase, *Cell*, 149, 1188.

Weber, S. C., Thompson, M. A., Moerner, W. E., Spakowitz, A. J. and Theriot, J. A. (2012) Analytical tools to distinguish the effects of localization error, confinement and medium elasticity on the velocity autocorrelation function, *Biophysical Journal*, 102, 2443.

Weber, S. C., Spakowitz, A. J. and Theriot, J. A. (2012) Nonthermal ATP-dependent fluctuations contribute to the *in vivo* motion of chromosomal loci, *Proceedings of the National Academy of Sciences*, 109, 7338.

Weber, S. C., Theriot, J. A. and Spakowitz, A. J. (2010) Subdiffusive motion of a polymer composed of subdiffusive monomers, *Physical Review E* 82, 011913.

Weber, S. C. and Theriot, J. A. (2010) Mu gets in the loop, *Molecular Cell* 39, 1.

Weber, S. C., Spakowitz, A. J. and Theriot, J. A. (2010) Bacterial chromosomal loci move subdiffusively through a viscoelastic cytoplasm, *Physical Review Letters* 104, 238102.

Invited Talks

Weber, S. C., Berry, J. M., Vaidya, N., Haataja, M. and Brangwynne, C. P. (2015) RNA transcription modulates phase transition-driven nucleolar assembly, *American Society for Cell Biology*, Annual Meeting.

Weber, S. C. and Brangwynne, C. P. (2014) Nucleolar assembly and growth are governed by a concentration-dependent phase transition, *American Society for Cell Biology*, Annual Meeting.

Weber, S. C. and Brangwynne, C. P. (2014) Inverse size scaling of the nucleolus by a concentration-dependent phase transition, *Biophysical Society*, Disordered Motifs and Domains in Cell Control.

Weber, S. C. and Brangwynne, C. P. (2014) Nucleolar size and assembly is governed by a concentration-dependent phase transition, *Gordon Research Conference*, Post-Transcriptional Gene Regulation.

Weber, S. C., Spakowitz, A. J. and Theriot, J. A. (2010) ATP-dependent fluctuations drive macromolecular motion *in vivo*, *American Society for Cell Biology*, Ann. Meeting.

Teaching Experience

Adjunct Lecturer, Department of Biology, Santa Clara University 2015-2016
BIOL181 Physical Biology of the Cell
BIOL175 Molecular Biology
BIOL25 Investigations in Cell and Molecular Biology
BIOL18 Exploring Biotechnology

Teaching Transcript Program, Princeton University 2013-2015
Pedagogical training at The McGraw Center for Teaching & Learning

Guest Lecturer, Princeton University 2012, 2014
CBE433 Mechanics and Dynamics of Soft Living Matter

Teaching Assistant, Stanford University 2008, 2010
BIOE41 Physical Biology of Macromolecules
BIO109 The Human Genome and Disease

Teaching Assistant, Marine Biological Laboratory, Woods Hole, MA 2008
Physiology Course

Service

Women in Cell Biology 2015
Served as a table leader for a Career Discussion Roundtable at the American Society for Cell Biology's Annual Meeting.

Princeton Postdoc Council 2013-2015
Served as liaison between postdocs and administration; Organized professional development and social events for the postdoctoral community at Princeton

Mentoring Program 2013-2015
Coordinated mentoring relationships between postdocs and graduate students, in collaboration with Graduate Women in Science and Engineering (GWISE)

Outreach 2012-2015
Designed and delivered lectures and lab activities for students at Stuart Country Day School in Princeton, NJ and Kilmer Elementary School in Trenton, NJ