STEPHANIE J. SPIELMAN

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CONTACT INFORMATION

Email: stephanie.spielman@utexas.edu Website: https:/sjspielman.org

Github: https://www.github.com/sjspielman

EDUCATION

The University of Texas at Austin Ph.D. in Ecology, Evolution and Behavior (expected May 2016) Research focus in Computational Molecular Evolution

Advisor: Claus O. Wilke

Brown University 2006 - 2010

Sc.B. in Biology, with Honors

Concentration in Ecology and Evolutionary Biology

Advisor: Daniel M. Weinreich

AWARDS AND HONORS

| Outstanding Teaching Award Biology Instructional Office, UT Austin | 2014 |
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| EEB Travel Grant Department of Integrative Biology, UT Austin | 2013 |
| SMBE Graduate Student Travel Grant Society for Molecular Biology and Evolution | 2013 |
| Integrative Biology Graduate Recruitment Fellowship Department of Integrative Biology, UT Austin | 2011 |
| Karen T. Romer Undergraduate Teaching and Research Award Brown University | 2009 |

PEER-REVIEWED PUBLICATIONS

5. **SJ Spielman** and CO Wilke. In press. The relationship between dN/dS and scaled selection coefficients. Mol Biol Evol.

- 4. **Spielman SJ**, Dawson ET*, and Wilke CO. 2014. Limited utility of residue masking for positive-selection inference. Mol Biol Evol 31(9):2496 2500.
- 3. Shahmoradi A, Sydykova DK*, **Spielman SJ**, Jackson EL, Dawson ET* Meyer AG, and Wilke CO. 2014. Predicting evolutionary site variability from structure in viral proteins: buriedness, flexibility, and design. J Mol Evol 79:130 142.
- 2. Tien MZ*, Meyer AG, Sydykova DK*, **Spielman SJ**, and Wilke CO. 2013. *Maximum allowed solvent accessibilites of residues in proteins*. PLoS One 8(11):e80635.
- 1. **Spielman SJ** and Wilke CO. 2013. Membrane environment imposes unique selection pressures in transmembrane domains of G-protein coupled receptors. J Mol Evol 76(3):172 182.

PREPRINTS AND OPINIONS

- 2. **Spielman SJ**[†], Meyer, AG[†], and Wilke CO. 2014. *Increased evolutionary rate in the 2014 West African Ebola outbreak is due to transient polymorphism and not positive selection.* bioRxiv doi: 10.1101/011429. [†]Authors contributed equally.
- 1. **Spielman SJ**, Kumar K*, and Wilke CO. Comprehensive, structurally-curated alignment and phylogeny of vertebrate biogenic amine receptors. PeerJ Preprints, https://peerj.com/preprints/571.

PRESENTATIONS AND POSTERS

How limited data and transient polymorphism influence evolutionary sequence analysis of EBOV genomes.

Contributed poster at Modeling the Spread and Control of Ebola in West Africa: a rapid response workshop.

Georgia Institute of Technology, Atlanta, GA 2015.

Limited utility of residue masking for positive-selection inference.

Contributed poster at 2nd Annual Symposium on Big Data in Biology, CCBB The University of Texas at Austin, Austin, TX 2014.

The molecular evolution of membrane proteins.

Contributed talk at SMBE Satellite Meeting, MPEII: Thermodynamics, Phylogenetics, and Structure University of Colorado, Aurora, CO 2013.

Membrane environment imposes unique selection pressures on GPCRs.

Contributed poster at Annual BEACON Congress Michigan State University, East Lansing, MI 2013.

^{*}Denotes undergraduate co-author.

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TEACHING EXPERIENCE

| Co-instructor, Peer-led Introduction to Computational Biology Center for Computational Biology and Bioinformatics, UT Austin | Spring 2015 |
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| Teaching Assistant, Computational Biology and Bioinformatics Department of Statistics and Data Science, UT Austin | Spring 2015 |
| Co-instructor, Introduction to Python Short Course Center for Computational Biology and Bioinformatics, UT Austin | May 2014 |
| Teaching Assistant, Biostatistics Department of Statistics and Data Science, UT Austin | Fall 2013 |
| Teaching Assistant, Evolution Department of Integrative Biology, UT Austin | Spring 2013 |
| Teaching Assistant, Biostatistics Department of Statistics and Data Science, UT Austin | Fall 2012 |
| Teaching Assistant, Evolutionary Biology Department of Biology, Brown University | Fall 2009 |