

# STEPHANIE J. SPIELMAN

The University of Texas at Austin  
2500 Speedway, Austin, TX 78712

## CONTACT INFORMATION

---

Email: [stephanie.spielman@utexas.edu](mailto:stephanie.spielman@utexas.edu)  
Website: <https://sjspielman.org>  
Github: <https://www.github.com/sjspielman>

## EDUCATION

---

<b>The University of Texas at Austin</b> Ph.D. in Ecology, Evolution and Behavior (expected May 2016) Research focus in Computational Molecular Evolution Advisor: Claus O. Wilke	2011 - present
<b>Brown University</b> Sc.B. in Biology, with Honors Concentration in Ecology and Evolutionary Biology Advisor: Daniel M. Weinreich	2006 - 2010

## AWARDS AND HONORS

---

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

## PEER-REVIEWED PUBLICATIONS

---

6. **Spielman SJ**, Kumar K\*, and Wilke CO. In press. *Comprehensive, structurally-curated alignment and phylogeny of vertebrate biogenic amine receptors*. PeerJ. Preprint: <https://peerj.com/preprints/571>.

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 accessibilities 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.

\*Denotes undergraduate co-author.

## PREPRINTS AND OPINIONS

---

1. **Spielman SJ**<sup>†</sup>, Meyer, AG<sup>†</sup>, 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. <sup>†</sup>Authors contributed equally.

\*Denotes undergraduate co-author.

## 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.

## TEACHING EXPERIENCE

---

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