

Curriculum Vitae

Personal Information

Full Name: Scott Walter Stevens, Ph.D.

Business Address: University of Texas at Austin
Institute for Cellular and Molecular Biology
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Positions Held

9/2008 – present Associate Professor of Molecular Biosciences
University of Texas at Austin

9/2002 – 8/2008 Assistant Professor of Molecular Genetics and Microbiology
University of Texas at Austin

Education and Training

Feb. 2002 to Jun. 2002 Senior Research Fellow
California Institute of Technology, Pasadena, CA

Feb. 1996 to Feb. 2002 Postdoctoral Fellow
California Institute of Technology, Pasadena, CA
Division of Biology
In the laboratory of Dr. John Abelson

August 1991 to Jan. 1996 Ph.D. Candidate
University of North Carolina at Chapel Hill
Department of Microbiology and Immunology
Dissertation "An analysis of HIV-1 integration events"
In the laboratory of Dr. Jack Griffith

1987-1991 Bachelor of Science candidate in Biochemistry (with honors)
University of Illinois at Urbana/Champaign
Department of Biochemistry
Thesis: "Cloning, genetic disruption and mutational analysis of the 54kD subunit of Signal Recognition Particle in the fission yeast *Schizosaccharomyces pombe*"
In the laboratory of Dr. JoAnn Wise.

Publications

1. Althoff, S.A, **Stevens, S. W.** and J. A. Wise (1994). The SRP54 GTPase is essential for protein export in the fission yeast *Schizosaccharomyces pombe*. *Mol. Cell. Biol.* 14; 7839-7854.
2. **Stevens, S. W.** and J. D. Griffith (1994). Human immunodeficiency virus type 1 may preferentially integrate into chromatin occupied by L1Hs repetitive elements. *Proc. Natl. Acad. Sci. (USA)* 91; 5557-5561.
3. **Stevens, S. W.** and J. D. Griffith (1996). Sequence analysis of the human DNA flanking sites of human immunodeficiency virus type 1 integration. *J. Virol.* 70; 6459-6462.
4. Trotta, C. R., Miao, F., Arn, E. A., **Stevens, S. W.**, Ho, C. K., Rauhut, R. and J. N. Abelson (1997). The Yeast tRNA Splicing Endonuclease: A tetrameric enzyme with two active site subunits homologous to the archaeal tRNA endonucleases. *Cell* 89; 849-858.
5. **Stevens, S. W.** and J. Abelson (1999). Purification of the yeast U4/U6•U5 snRNP and identification of its associated proteins. *Proc. Natl. Acad. Sci. U.S.A.* 96; 7226-7231.
6. **Stevens, S. W.** (1999). Analysis of low-abundance RNPs from yeast by affinity chromatography and mass spectrometry microsequencing. *Methods in Enzymology* 318; 385-398.
7. **Stevens, S. W.**, Ge H. Y., Moore R. E., Young M. K., Lee, T. D. and J. Abelson (2001). Biochemical and genetic analyses of the U5, U6 and U4/U6•U5 small nuclear ribonucleoproteins from *Saccharomyces cerevisiae*. *RNA* 7; 1543-1553.
8. **Stevens, S. W.**, Ryan, D. E., Ge H. Y., Moore R. E., Young M. K., Lee, T. D. and J. Abelson (2002). Composition and Functional Characterization of the Yeast Spliceosomal Penta-snRNP. *Molecular Cell* 9; 41-54.
9. **Stevens, S. W.** and J. Abelson (2002). Pre-mRNA splicing in yeast: mechanisms, machinery and methods. *Methods in Enzymology* 351; 200-220.
10. Ryan, D. E., **Stevens, S. W.** and J. Abelson (2002). Extensive mutation of yeast U6 snRNA provides insight into its role in spliceosome activation. *RNA* 8; 1011-1033.
11. Combs, D. J., Nagel, R. J., Ares, Manuel Jr. and **S. W. Stevens** (2006). Prp43p is a DEAH-box spliceosome disassembly factor essential for ribosome biogenesis. *Mol. Cell. Biol.* 26; 523-534.
12. Chen, Y.-I. Maika, S. D. and **S. W. Stevens** (2006). Epitope tagging of proteins at the native chromosomal loci of genes in mice and in cultured vertebrate cells. *J. Mol. Biol.* 361; 412-419.
13. Chen, Y.-I., Moore, R.E., Ge, H. Y., Young, M. K., Lee, T.D. and **S. W. Stevens** (2006). A compositional analysis of pre-mRNA processing complexes formed *in vivo* purified from human and chicken cells. *Nucleic Acids Res.* 35; 3928-3944.
14. **S.W. Stevens** (2008). Purification of ribonucleoproteins using peptide-elutable antibodies and other affinity techniques. *In* RNA – Protein Interaction Protocols. R.J. Lin *ed.* Humana Press
15. **S.W. Stevens** (2010). The Biology of DEAH/RHA proteins and their mechanism of action. *In* Helicases and Helicase-like proteins in RNA metabolism. E. Jankowsky *ed.* Royal Society of Chemistry, London, U.K.
16. Lardelli, R.M., Thompson, J.X., Yates, J.R. III and **S.W. Stevens.** (2010). Release of SF3 from the intron branchpoint activates the first step of pre-mRNA splicing. *RNA* 16 516-528.
17. Matthew R. Sorenson and **Scott W. Stevens** (2014) Rapid identification of mRNA processing defects with a novel single-cell yeast reporter. *RNA* 20 732-745.
18. Eric J. Montemayor, Adam Katolik, Alexander B. Taylor, Jonathan Schuermann, D. Joshua Combs, Richard Johnsson, Stephen P. Holloway, Masad J. Damha, **Scott W. Stevens***, and P. John Hart*. (2014) Structural basis of lariat RNA recognition by the intron debranching enzyme Dbr1. *Nucl. Acids Res.* 42(16): 10845–10855.

19. Matthew R. Sorenson¹, Deepak K. Jha², Stefanie A. Ucles³, Danielle M. Flood³, Brian D. Strahl^{2,4}, **Scott W. Stevens*** and Tracy L. Kress^{*} (2016) Histone H3K36 methylation regulates pre-mRNA splicing in *Saccharomyces cerevisiae*. *RNA Biol.* 13 (4) 412–426.
20. Sujin Lee and **Scott W. Stevens.** (2016). Spliceosomal Intronogenesis. *Proc. Natl. Acad. Sci. U.S.A.* 113 (23) 6514-6519.
21. Nathaniel E. Clark, Adam Katolik, Kenneth M. Roberts, Alexander B. Taylor, Stephen P. Holloway, Jonathan P. Schuermann, Eric J. Montemayor, **Scott W. Stevens**, Paul F. Fitzpatrick, Masad J. Damha, and P. John Hart. (2016). Metal dependence and branched RNA co-crystal structures of the RNA lariat debranching enzyme Dbr1. *Proc. Natl. Acad. Sci. U.S.A.* 113 (51) 14727-14732.

* *CO-CORRESPONDING AUTHORS*

Teaching

Spring 2003

- BIO393 “Ribonucleoproteins”. I designed this seminar course as an introduction to the topic of macromolecular machines. Although titled “Ribonucleoproteins”, this course was focused on all large protein and RNA/protein assemblies, their functions and their interactions with other macromolecular machines.
- MOL190 “Seminar in Molecular Biology”. Co-instructor

Fall 2003

- MOL190 “Seminar in Molecular Biology”; Instructor

Spring 2004

- BIO211 “Introduction to Biology I; Cell Biology”

Spring 2005

- BIO211 “Introduction to Biology I; Cell Biology”

Spring 2006

- CH204 “Introduction to Chemical Practice - Freshman Research Initiative”
- CH107 “Conference Course: Freshman Research Initiative (Chemistry majors)”
- BIO102C “Conference Course: Freshman Research Initiative (Biology majors)”

Spring 2007

- CH204 “Introduction to Chemical Practice - Freshman Research Initiative”
- BIO205 “Introductory Biology Laboratory- Freshman Research Initiative”
- BIO102C “Conference Course: Freshman Research Initiative (Biology majors)”
- CH107 “Conference Course: Freshman Research Initiative (Chemistry majors)”

Spring 2008

- CH204 “Introduction to Chemical Practice - Freshman Research Initiative”
- BIO205 “Introductory Biology Laboratory- Freshman Research Initiative”
- BIO102C “Conference Course: Freshman Research Initiative (Biology majors)”
- CH107 “Conference Course: Freshman Research Initiative (Chemistry majors)”
- BIO393 “Genes and Genomes”; Microbiology Graduate Student Journal Club

Spring 2009

- CH204 “Introduction to Chemical Practice - Freshman Research Initiative”
- BIO205 “Introductory Biology Laboratory- Freshman Research Initiative”
- BIO102C “Conference Course: Freshman Research Initiative (Biology majors)”
- CH107 “Conference Course: Freshman Research Initiative (Chemistry majors)”
- BIO393 “Eukaryotic Gene Expression”; Microbiology Graduate Student Journal Club

Spring 2010

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO205	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Spring 2011

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO205	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Spring 2012

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO205	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Spring 2013

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Fall 2013

BIO396R	"Microbiology Research Seminar"
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Spring 2014

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Fall 2014

BIO396R	"Microbiology Research Seminar"
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Spring 2015

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"
BIO344	"Molecular Biology"

Fall 2015

BIO396R	"Microbiology Research Seminar"
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Spring 2016

CH204	"Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L	"Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C	"Conference Course: Freshman Research Initiative (Biology majors)"
CH107	"Conference Course: Freshman Research Initiative (Chemistry majors)"

BIO344 "Molecular Biology"

Fall 2016

BIO396R "Microbiology Research Seminar"
BIO344 "Molecular Biology"

Spring 2017

CH204 "Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L "Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C "Conference Course: Freshman Research Initiative (Biology majors)"
CH107 "Conference Course: Freshman Research Initiative (Chemistry majors)"
BCH339F "Foundations of Biochemistry"

Fall 2017

BIO396R "Microbiology Research Seminar"
BIO344 "Molecular Biology"

Spring 2018

CH204 "Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L "Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C "Conference Course: Freshman Research Initiative (Biology majors)"
CH107 "Conference Course: Freshman Research Initiative (Chemistry majors)"
BCH339F "Foundations of Biochemistry"

Fall 2018

BIO396R "Microbiology Research Seminar"
BIO344 "Molecular Biology"

Spring 2019

CH204 "Introduction to Chemical Practice - Freshman Research Initiative"
BIO206L "Introductory Biology Laboratory- Freshman Research Initiative"
BIO102C "Conference Course: Freshman Research Initiative (Biology majors)"
CH107 "Conference Course: Freshman Research Initiative (Chemistry majors)"
BCH339F "Foundations of Biochemistry"

Fall 2019

BIO344 "Molecular Biology"
BCH339F "Foundations of Biochemistry"