

Curriculum Vitae
for
Susan T. Rouse, Ph.D.
(updated 3/2014)

Southern Wesleyan University
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Education

2010-2013 **MA-Bioethics**, Trinity International University, Deerfield, IL
1991-1997 **Ph.D., Neuroscience** Emory University, Atlanta, GA
1987-1991 **B.S., Biology and Psychology** Georgia College, Milledgeville, GA
Magna Cum Laude

Positions

2014-present **Chair, Division of Science**; Southern Wesleyan University
2012-present **Director, SWU Honors Program**; Southern Wesleyan University
2010-present **Professor of Biology, tenured**; Southern Wesleyan University
2005-2010 **Associate Professor of Biology**; Southern Wesleyan University
2004-2005 **Assistant Professor of Biology**; Brenau University
1998-2002 **Lecturer**; Department of Biology, Emory University
1997-1999 **Postdoctoral fellowship** in the laboratory of P. Jeffrey Conn, Ph.D.
Dept. of Pharmacology, Emory University

Research Interests

Bioethics, specifically neuroethics
Behavioral and cognitive effects of *Toxoplasma gondii* infection

Dissertation

Expression of m1-m4 Muscarinic Acetylcholine Receptors in Hippocampal Afferents

Teaching Experience

2010-Present Professor: Southern Wesleyan University
2005-2010 Associate Professor; Southern Wesleyan University
BIOL1004 **Biology I**

<i>SEMR 2011</i>	Scientific Literacy
<i>BIOL 2203</i>	Nutrition
<i>BIOL3254</i>	Biochemistry
<i>BIOL 3504</i>	Genetics
<i>BIOL 3454</i>	Molecular and Cellular Biology
<i>BIOL3403</i>	Physiology of Behavior
<i>BIOL4253</i>	Neurobiology
<i>BIOL3313</i>	Bioethics
<i>BIOL1103</i>	Biology for Non-majors
<i>BIOL1054</i>	Survey of Anatomy and Physiology
<i>BIOL4501</i>	Capstone Seminar (Biology Sr. Seminar)

2003-2005 Assistant Professor ; Brenau University

Courses taught:

<i>BY101-102</i>	Biological Science I & II
<i>BY206</i>	Microbiology
<i>BY301</i>	Genetics
<i>BY401</i>	Biology Senior Seminar

1998-2002 Lecturer; Department of Biology, Emory University

Courses taught:

<i>Bio141</i>	Cell and Molecular Biology
<i>Bio 142</i>	Population and Organismal Biology
<i>Bio 360</i>	Introduction to Neurobiology
<i>Bio 361</i>	Neurobiology Project Lab
<i>Bio190S</i>	The Stressed Out Brain

This was an academic freshman seminar that I created and taught. The class focused on the biology of stress and its affects on the human body.

Bio497 **Directed Study** with individual students

Grants/Awards

2014	SCICU Faculty-Student Research Grant Southern Wesleyan University (with Courtney Williams and Mark Cromer)
2012	SCICU Faculty-Student Research Grant Southern Wesleyan University (with Tessa Morrison)
2011	SCICU Faculty-Student Research Grant Southern Wesleyan University (with Stephanie Sestito)
2010	SCICU Faculty-Student Research Grant Southern Wesleyan University (with David Fipps)
2009	SCICU Faculty-Student Research Grant Southern Wesleyan University (with Brian Daniels)
2009-2010	Southern Wesleyan University Faculty Member of the Year

- 2009-2010 **SWU nominee for SC Governor's Professor of the Year and the SCICU Professor of the Year**
- 1999 **Center for Teaching and Curriculum** New course development grant, Emory University
- 1997- 1998 **Post-doctoral** Individual National Research Service Award-NIMH
- 1995-1997 **Pre-doctoral** Individual National Research Service Award-NIMH
- 1991-1997 **Graduate Fellowship**, Emory University Program in Neuroscience

Professional Societies

- 1995-present Society for Neuroscience
- 2005-2008 National Association of Science Teachers

Presentations

- 2008 *Alzheimer's Disease: An elusive neurodegenerative disorder.* Faculty Colloquium. Southern Wesleyan University.
- 2008 *Understanding Alzheimer's Disease.* Wesleyan Minister's Conference.
- 2009 *Prions: The infectious proteins that put the mad in Mad Cow Disease.* Faculty Colloquium. Southern Wesleyan University.

Publications

Books/Book Chapters

- Accornero, C and S. Rouse (2009) Abortion and Euthanasia (Chapter 6) in *Creation Care* (Wesleyan Church)
- Rouse, S. (2007) *Instructor's guide for Biological Science, Third edition* (Scott Freeman). Benjamin Cummings/Pearson.
- Rouse, S. (2006) *Powerpoint Lectures to accompany Concepts in Biology* (Enger, Ross and Bailey). McGraw Hill Publishers.
- Rouse, S. (2005) *Instructor's guide for Biological Science, Second edition* (Scott Freeman). Prentice Hall, NJ.
- Palmer, Julie (editor), Heady, J., Kelley, C., Pindel, D. **Rouse, S.**, Whittemore, S. (contributors). (2002) *Instructor's guide for Biological Science* (Scott Freeman). Prentice Hall, NJ.
- Michelle L. Gilmore, **Susan T. Rouse**, Craig Heilman, Norman Nash, Allan I. Levey (1998) Production of Antisera Using Fusion Proteins in **Receptor Biochemistry and Methodology**. Wiley-Liss. New York.

Primary Research Articles/Reviews

Rouse, Susan T. (2013) Cognitive Enhancement in Education: the State of the Issue. *Dignitas*.

Rouse, Susan T. (2012) Defending the right of conscience in healthcare beyond the right to religious freedom. *Linacre Quarterly*. 79(2):155-168.

Alagarsamy, S., **Rouse, S.**, Junge, C., Hubert, C., Gutman, D., Smith, Y. and Conn, P.J. (2002) NMDA-Induced Phosphorylation and Regulation of mGluR5. *Pharmacology, Biochemistry and Behavior*.

Rouse, S.T., Marino, M.J., Bradley, S.R., Awad, H., Wittmann, M., and Conn, P.J. (2001) Distribution and roles of metabotropic glutamate receptors in basal ganglia: implications for treatment of PD and related disorders. *Pharmacology and Therapeutics*

Rouse, S., Hamilton, S., Potter, L., Nathanson, N. and Conn, P.J. (2000) Muscarinic-induced modulation of potassium conductances is unchanged in mouse hippocampal pyramidal cells that lack functional M₁ receptors. *Neuroscience Letters*. 278 (1-2); 61-64.

Rouse, S.T., Edmunds, S.M., Yi, H., Gilmor, M.G., and Levey, A.I. (2000) Synaptic Localization of the m2 Muscarinic Acetylcholine Receptor in the CA1 Region of Hippocampus and Direct Visualization of m2 in Cholinergic Terminals. *Neuroscience Letters*. 284; 182-186.

Bradley, S.R., Marino, M.J., **Rouse S.T.**, Wittmann M., Awad, H., Levey, A.I., and Conn, P.J. (2000) Activation of group II mGluRs inhibits synaptic excitation of the substantia nigra pars reticulata. *Journal of Neuroscience*. 20 (9); 3085-94.

Rouse, S., Marino, M., Potter, L., Conn, P., and Levey, A. (1999) mAChRs in Hippocampus. *Life Sciences*. 64; 502-509.

Alagarsamy, S., Marino, M., **Rouse, S.**, Gereau, R., Heinemann, S., Conn, P.J. (1999) Activation of NMDA Receptors Reverses Desensitization of mGluR5 in Native and Recombinant Systems. *Nature Neuroscience*. 2; 234-240.

Susan T. Rouse, Michelle L. Gilmor and Allan I. Levey (1998) Differential Presynaptic and Postsynaptic Expression of m1-m4 Muscarinic Acetylcholine Receptors at the Perforant Pathway/Granule Cell Synapse. *Neuroscience*. 86 (1); 221-232.

Marino, M.J., **Rouse S.T.**, Levey, A.I., Potter, L.T. and Conn, P.J. (1998) Activation of the genetically defined m1 muscarinic receptor potentiates NMDA receptor currents in hippocampal pyramidal cells. *Proc. Natl. Acad. Sci*. 95; 11465-11470.

Susan T. Rouse and Allan I. Levey (1997) Muscarinic Acetylcholine Receptor Immunoreactivity After Hippocampal Commissural/Associational Pathways Lesions: Evidence for Multiple Presynaptic Receptor Subtypes. **Journal of Comparative Neurology**. 380 (3): 382-394.

Susan T. Rouse, Traci M. Thomas and Allan I. Levey (1997) Muscarinic Acetylcholine Receptor Subtype, m2: Diverse Functional Implications of Differential Synaptic Localization. **Life Sciences**. 60: 1031-1038.

Susan T. Rouse and Allan I. Levey (1996) Expression of m1-m4 Muscarinic Acetylcholine Receptor Immunoreactivity in Septohippocampal Neurons and Other Identified Hippocampal Afferents. **Journal of Comparative Neurology**. 375 (3): 406-416.

Abstracts

Wittmann M., Marino M.J., **Rouse S.T.** and Conn P.J. (2000) Metabotropic glutamate receptors modulate excitatory and inhibitory transmission in the substantia nigra pars reticulata. **Society for Neuroscience Abstracts** Vol. 26: #740.15

Rouse, S., Hamilton, S., Potter, L., Nathanson, N., and Conn, P.J. (1998) Muscarinic Modulation of Hippocampal Function in m1 Knockout Mice. *Eighth International Symposium on Subtypes of Muscarinic Receptors*. Boston, MA.

MJ Marino, **ST Rouse**, AI Levey, LT Potter, and PJ Conn (1997) The m1 muscarinic receptor mediates potentiation of NMDA-receptor current in CA1 pyramidal cells. . **Society for Neuroscience Abstracts**. Vol. 23: #787.7

SR Bradley, KJ Rhodes, **ST Rouse**, AI Levey, and PJ Conn (1997) Distribution of mGluR4a in mouse brain and subtype-specific antibodies. . **Society for Neuroscience Abstracts**. Vol. 23: #685.13

Susan T. Rouse and Allan I. Levey (1996) Alterations in mAChR expression in rat dentate gyrus following commissural/associational pathway lesions. **Society for Neuroscience Abstracts**. Vol. 22: #692.20.

Susan T. Rouse and Allan I. Levey (1996) Diversity of mAChR heteroreceptor proteins in multiple hippocampal circuits. Eighth Symposium on Muscarinic Subtypes. **Life Sciences**. 60.

Susan T. Rouse and Allan I. Levey (1995) m1-m4 muscarinic receptor proteins in rat dentate gyrus and afferent projection neurons. **Society for Neuroscience Abstracts**. Vol. 21. # 800.13.

Melikian H, Moore K, Qian Y, Kimmel H, **Taylor S**, Gereau R, Levey A, Blakely R (1993) Structure and function of plasma membrane serotonin transporters. **Abstracts for Society for Neuroscience**. *Vol. 19*. #206.1.

Ramamorthy S, Yang-Feng T, Chang AS, Berson H, **Taylor, S**, Moore K, Bauman A, Ganapathy V, Blakely R (1993) Cloning and characterization of human serotonin transporter. **2nd Annual Serotonin Symposium**. Houston, Texas..

Professional References

Chair and Dean, 2005-present

Walt Sinnamon, Ph.D.
Dean of the College of Arts and Sciences
Southern Wesleyan University
907 Wesleyan Drive
Central, SC 29631
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Peer and mentor 1998-2002

Paul Lennard, Ph.D.
Director, Neuroscience and Behavioral Biology Program
Annex E 11 Frat Row
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Atlanta, GA 30322
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Postdoctoral advisor 1997-1999

P. Jeffrey Conn, Ph.D.
Department of Pharmacology
Vanderbilt University Medical Center
23rd Avenue South at Pierce
452-B Preston Research Building
Nashville, TN 37232-6600
Phone: 615-936-2478
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E-mail: jeff.conn@vanderbilt.edu

Predoctoral/Dissertation advisor 1993-1997

Allan I. Levey, M.D., Ph.D.
Department of Neurology
Emory University School of Medicine
Whitehead Biomedical Research Bldg.
Atlanta, GA 30322
404-727-3727

Undergraduate advisor and mentor 1987-1991

William F. McDaniel, Ph.D.
Chair, Psychology Dept.
Georgia College and State University
Milledgeville, GA 31061-0490
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