

## CURRICULUM VITAE

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### Education:

Boston University School of Medicine	NIH Postdoctoral Fellow, 1982-1985; Department of Anatomy
University of Texas Health Science Center	Ph. D. in Biomedical Science; 1982; Department of Neurobiology and Anatomy
University of South Alabama	B.S.; 1978; Departments of Mathematics and Psychology (double major)

### Employment and Positions Held:

1991-Present	Associate Professor, Tenured; Department of Physical Therapy; Northeastern University, Boston, Massachusetts
2002-2015	Research Associate Professor: Department of Neurobiology, SUNY Upstate Medical School, Syracuse, NY
1985-1991	Assistant Professor; Department of Physical Therapy; Northeastern University, Boston, Massachusetts
1982-1985	NIH Postdoctoral Fellow, Department of Anatomy; Boston University, Boston, Massachusetts
1983 - 1984	Assistant Professor in Residence; Department of Psychology; University of Connecticut; Storrs, Connecticut
1979- 1982	Teaching Assistant; Department of Neurobiology and Anatomy; University of Texas Medical School, Houston, Texas
1975-1977	Research Assistant; Neuroscience Research Program, University of South Alabama Medical School, Mobile, Alabama

### Peer Reviewed Publications:

1. Vogt BA, Vogt LF, Sikes RW 2018 A nociceptive stress model of adolescent physical abuse induces contextual fear and cingulate nociceptive neuroplasticities *Brain Struct Funct.* 2018 Jan;223(1):429-448. PMID: 28861709
2. Pancaro C, Segal BS, Sikes RW, Almeer Z, Schumann R, Azocar RJ, Marchand JE (2016) Dexmedetomidine and ketamine show distinct patterns of cell degeneration and apoptosis in the developing rat neonatal brain. *J Matern Fetal Neonatal Med.* PMID: 26821538.
3. Morrison TR, Sikes RW, Melloni RH Jr. (2015) Anabolic steroids alter the physiological activity of aggression circuits in the lateral anterior hypothalamus. *Neuroscience.* PMID: 26691962; PMCID: PMC4720269.
4. Shyu BC, Sikes RW, Vogt LJ, Vogt BA 2010 Nociceptive processing by anterior cingulate pyramidal neurons. *J Neurophysiol.* 103(6):3287-301.
5. Vogt BA, Sikes RW 2009, Cingulate Nociceptive circuitry and roles in pain processing: The cingulate premotor pain model. In Vogt BA *Cingulate Neurobiology and disease* Oxford University Press, Oxford
6. Sikes RW, Vogt LJ, Vogt BA 2008 Distribution and properties of visceral nociceptive neurons in rabbit cingulate cortex. *Pain* 135:160-74
7. Vogt BA, Hof PR, Sikes RW, Friedman D, Vogt LJ 2007 Dopamine- $\beta$  hydroxylase distribution in the monkey midline and intralaminar thalamic nuclei. *Brain Structure Function*, 2008 212:465-479
8. Newton, J, Sikes RW and Skavenski AA 2002 Cross-modal plasticity after monocular enucleation of the adult rabbit. *Experimental Brain Research* 2002 144:43-429.
9. Waszczak, BL; Martin, L; Boucher, N; Zahr, N; Sikes RW 2001 Electrophysiological and behavioral output of the rat basal ganglia after intrastriatal infusion of d-amphetamine: lack of support for the basal ganglia model *Brain Research* 920: 170-182
10. Vogt BA, Sikes RW 2000 The medial pain system, cingulate cortex, and parallel processing of nociceptive information. *Prog Brain Res* 122:223-35
11. Vogt BA; Sikes RW; Vogt LJ 1993 Anterior Cingulate Cortex and the Medial Pain System in *Neurobiology of Cingulate Cortex and Limbic Thalamus: A comprehensive handbook* BA Vogt and M Gabriel Eds. Birkhauser, Boston
12. Vogt LJ; Vogt BA; Sikes RW 1992 Limbic thalamus in rabbit: architecture, projections to cingulate cortex and distribution of muscarinic acetylcholine, GABAA, and opioid receptors. *J Comp Neurol*, 319, 205-17.
13. Sikes RW; Vogt BA 1992 Nociceptive neurons in area 24 of rabbit cingulate cortex. *J Neurophysiol*, 68: 5, Nov, 1720-32.
14. Vogt BA; Sikes RW; Lateral magnocellular thalamic nucleus in rabbits: architecture and projections to cingulate cortex 1990 *J Comp Neurol*, 299, 64-74.
15. Sikes RW; Vogt BA; Swadlow HA 1988 Neuronal responses in rabbit cingulate cortex linked to quick-phase eye movements during nystagmus; *J Neurophysiol*, 59, 922-36

16. DeFrance JF; Sikes RW; Chronister RB 1985 Dopamine action in the nucleus accumbens; *J Neurophysiol*, 54, 1568-77.
17. Sikes RW; Vogt BA 1987 Afferent connections of anterior thalamus in rats: sources and association with muscarinic acetylcholine receptors; *J Comp Neurol*, 256, 538-51.
18. Vogt BA; Sikes RW; Swadlow HA; Weyand TG 1986 Rabbit cingulate cortex: cytoarchitecture, physiological border with visual cortex, and afferent cortical connections of visual, motor, postsubicular, and intracingulate origin; *J Comp Neurol*, 248, 74-94.
19. DeFrance JF; Marchand JF; Sikes RW; Chronister RB; Hubbard JI 1985 Characterization of fimbria input to nucleus accumbens. *J Neurophysiol*, 54: 6, Dec, 1553-67.
20. Sikes RW; DeFrance JF 1985 Cholinergic modulation of mediodorsal thalamic input into cingulate cortex; *Brain Res*, 345, 327-31.
21. Sikes RW; DeFrance JF 1985 Cingulate cortex response to electrical stimulation of the mediodorsal thalamic nucleus. *Exp Neurol*, 89, 428-41
22. Chronister RB; Palmer GC; DeFrance JF; Sikes RW; Hubbard JI 1982 Histamine: correlative studies in nucleus accumbens; *J Neurobiol*, 13, 23-37.
23. Andree TH; Gottesfeld Z; DeFrance JF; Sikes RW; Enna SJ 1983 Evidence for cholinergic muscarinic receptors on mediodorsal thalamic projections to the anterior cingulate cortex; *Neurosci Lett*, 40, 99-103.
24. Chronister RB; Sikes RW; Wood J; DeFrance JF 1980 The pattern of termination of ventral tegmental afferents into nucleus accumbens: an anterograde HRP analysis; *Neurosci Lett*, 17, 231-5.
25. DeFrance JF; Sikes RW; Chronister RB 1984 Effects of CCK-8 in the nucleus accumbens; *Peptides*, 5, 1-6.
26. Sikes RW; Gottesfeld Z; DeFrance JF 1983 Origin of cingulate cortex cholinergic innervation in the rat; *Brain Res Bull*, 10, 429-32
27. DeFrance JF; Sikes RW; Gottesfeld Z 1983 Regional distribution of catecholamines in nucleus accumbens of the rabbit; *J Neurochem*, 40, 291-3.
28. Ortez RA; Sikes RW; Sperling HG 1980 Immunohistochemical localization of cyclic GMP in goldfish retina; *J Histochem Cytochem*, 28, 263-70
29. Sikes RW; Fuller GN; Colbert C; Chronister RB; DeFrance J; Wiggins RC 1981 The relative numbers of oligodendroglia in different brain regions of normal and postnatally undernourished rats; *Brain Res Bull*, 6, 385-91
30. DeFrance JF; Marchand JE; Stanley JC; Sikes RW; Chronister RB 1980 Convergence of excitatory amygdaloid and hippocampal input in the nucleus accumbens septi; *Brain Res*, 185, 183-6
31. Chronister RB; White LE Jr.; Sikes RW; DeFrance JF 1979 The regions of the fornix longus: a morphologic analysis. *J Hirnforsch*, 20, 201-16
32. Sikes RW; Chronister RB; White LE Jr. 1977 Origin of the direct hippocampus--anterior thalamic bundle in the rat: a combined horseradish peroxidase--Golgi analysis; *Exp Neurol*, 57, 379-95

33. Chronister RB; DeFrance JF; Sikes RW; Srebro B; White LE Jr. 1976 The midline septum telencephali: a raphe; Exp Neurol, 50, 684-98

Peer Review Abstracts (Recent)

RW Sikes, H Getto, S Murphy, V Ruvolo 2019 An Interactive 3D Model of CNS Cross-Sections and Sensory Pathways from Receptor to Cerebral Cortex FASEB Journal 33(1): Meeting Abstract 444.24

RW Sikes, A Paquette 2018 Simplifying stereotaxic insertion of cannula and electrodes using 3D printing of surgical guides designed with freely available software Society for Neuroscience Abstract 431.17

Sikes RW Bernardo C and Yavetz E 2017 From 3D Brains to 3D PDFs: Creating Virtual 3D Models of Human Brains for Neuroanatomy Classes Through Photogrammetric 3D Scanning FASEB Journal Vol 31 (1) Meeting Abstract 736.3

Book Chapters:

Sikes RW 2004 The physiology and psychology of pain. In Chad Starkey (Ed.)  
Therapeutic Modalities 3rd Edition Philadelphia, PA, F.A. Davis

Professional Organizations:

Society for Neuroscience 1980 – present  
American Association of Anatomists 1980 – present  
American Neurophysiological Society 2014 -- present

Recent Teaching:

Neuroscience (Lecture and Lab) Physical Therapy undergraduates 1985 - present

Functional Neuroanatomy (Lecture and Lab) Graduate and upper level Behavior  
Neuroscience undergraduates 2012 – present

Human Gross Anatomy (Lecture and Lab) Physical Therapy undergraduates 2000-  
2012, 2020

PT Projects 2 (2010 – present) Undergraduate research capstone projects