

CURRICULUM VITAE

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CITIZENSHIP: United States of America

CURRENT ACADEMIC TITLE: Chair and Professor (Tenured)

ADDRESS:

Department of Basic Pharmaceutical Sciences
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EDUCATION:

Undergraduate and Graduate Training:

1987	Barton College (Psychology; Minors: Chemistry)	B.S.
1990	Emory University (Psychobiology)	M.A.
1995	Wake Forest University, Bowman Gray School of Medicine (Pharmacology/Physiology)	Ph.D.

Postgraduate Training:

1995-1998	University of Pennsylvania School of Medicine, Department of Pharmacology, Dr. James H. Eberwine (Advisor)
1995-1996	National Institute on Mental Health, Training Program in Neuropsychopharmacology (Dr. Irwin Lucki, Director)
1996-1998	National Institute on Drug Abuse, National Research Service Award: Molecular Characterization of Heroin Self-Administration

ACADEMIC AND ADMINISTRATIVE EXPERIENCE:

1999-2001	Director, Emory Health Sciences Center Microarray Facility
1999-2004	Assistant Professor of Pharmacology and Psychiatry & Behavioral Sciences, Emory University School of Medicine, Atlanta, GA
2001-2004	Assistant Professor of Hematology and Oncology, Emory University School of Medicine, Atlanta, GA
2004-2007	Adjunct Appointment in Psychiatry and Behavioral Sciences, Emory University School of Medicine
2004-2007	Affiliate Scientist, Yerkes National Primate Research Facility, Atlanta, GA
2004-2008	Associate Professor of Physiology and Pharmacology, Wake Forest University School of Medicine
2006-2008	Associate Professor in Psychiatry and Behavioral Medicine, Wake Forest University School of Medicine
2008-2014	Professor with Tenure, Dept. of Physiology and Pharmacology, Psychiatry and Behavioral Medicine, Wake Forest University School of Medicine
2009-2014	Professor in the Translational Science Institute, Novel Clinical and Translational Methodologies Program
2010-2013	Adjunct Professor, Department of Psychiatry and Behavioral Medicine, University of Virginia School of Medicine
2014-present	Founding Chair and Professor, Basic Pharmaceutical Sciences, School of Pharmacy, High Point University, High Point, NC
2014-2015	Health Research Scientist, U.S. Department of Veterans Affairs, W.G. Hefner VA Medical Center, Salisbury, NC

PROFESSIONAL EXPERIENCE:

Study Sections and Other Grant Review Committees

1999	Veteran's Administrator External Grant Review
2000	National Center for Research Resources, Minority Institutions

2000	National Institute on Aging, Nathan Shock Centers for Excellence in Aging Research
2001	National Center for Research Resources, Biomedical Research Infrastructure (BRIN)
2001	National Institute on Alcohol Abuse and Alcoholism, Special Emphasis Panel
2002	National Center for Research Resources, Comparative Medicine
2002	National Science Foundation, Grant Review
2003	National Institute on Drug Abuse, B-START
2004	National Institute of Health, Insect Biochemistry and Genetics
2004	The Netherlands Organisation for Health Research and Development
2005	BUPA Foundation
2005	National Institute on Drug Abuse, B-START
2005	NIMH Center grant applications in schizophrenia and ADHD
2005	Philip Morris External Research Program
2005-2006	National Institutes for Mental Health, Mental Health Centers for Intervention Development and Applied Research (CIDAR)
2005-2007	National Institute of Health, MDCN-K(94), Neurogenetics and Neurogenomics (Chair 2006, 2007)
2006	Integrative Neuroscience Initiative for Alcoholism
2006	National Institute of Health, MDCN-K B, Proteomics of Calcium Channels
2006-2008	National Institute of Health, BDCN-A (90)S, Brain Disorders and Clinical Neuroscience
2007	National Institute on Aging, Alzheimer Program Project Review

2007 National Institute on Alcohol Abuse and Alcoholism, SBIR

2007 Neurological Foundation of New Zealand

2007 State of Pennsylvania Department of Health Final Performance Review

2008-2010 National Institute of Health Molecular Neurogenetics Study Section, Charter Member

2008 National Institute of Health, Center for Scientific Review, Emerging Technologies and Training in Neurosciences (ETTN-A) IRG

2008 National Institute of Health, National Institute on Drug Abuse, Special Emphasis Panel for HIV/AIDS Pilot Proteomics Centers (ZDA1 MXS-M (18))

2010 National Institute of Mental Health, Silvio O. Conte Centers for Basic and Translational Mental Health Research, (ZMH1 ERB-M(02))

2010 National Institute of Health, National Institute on Drug Abuse, Special Emphasis Panel for Systems Biology, HIV/AIDS, and Substance Abuse

2011 State of Pennsylvania Peer Review

2011 National Institute of Health, Special Emphasis Panel, Molecular, Cellular and Developmental Neuroscience A(04) (2011)

2011 NIAAA P01 Application Review (GG21)

2011 National Institute of Health, National Institute on Drug Abuse, Systems Biology of HIV/AIDS and Substance Use (ZAA1 DD (40) 1)

2011 National Institute of Health, BDCN-J, Special Emphasis Panel, (ZRG1 BDCN-J (03) M)

2011 NIAAA Member Conflict Application Review, Special Emphasis Panel, (ZAA1 GG (01) M)

- 2011 National Institute of Mental Health, Silvio O. Conte Centers for Basic and Translational Mental Health Research (ZMH1 ERB-S (02) S)
- 2012 National Institute of Mental Health, Silvio O. Conte Centers for Basic and Translational Mental Health Research, (ZMH1 ERB-M(02))
- 2012 National Institute of Health, National Institute on Alcohol Abuse and Alcoholism, ZAA1 -GG -(68) NIAA
- 2012 National Institute of Health, Center for Scientific Review, ZRG1 -BDCN -A -(02)
- 2013 National Institute of Health, National Institute on Drug Abuse, The Interplay of Substance Abuse and HIV-1 Infection on Glial Cell Function (R01/R21)ZDA1 GXM-A (08)
- 2013 National Institute of Health, National Institute of Environmental Health Sciences, Understanding Environmental Control of Epigenetic Mechanisms ZES1 LWJ-D (TG)
- 2013 National Institute of Health, National Institute on Alcohol Abuse and Alcoholism, ZAA1-GG-(60), NIAAA
- 2013 National Institute of Mental Health, Silvio O. Conte Centers for Basic and Translational Mental Health Research, (ZMH1 ERB-M(02))
- 2014 National Institute of Health, Special Emphasis Panel, Cellular Neurosciences, ZRG1 MDCN-G(91), Chair
- 2014 National Institute of Health, Biobehavioral Regulation, Learning and Ethology (BRLE) Study Section, Ad Hoc
- 2014 Center for Scientific Review, Molecular, Cellular and Developmental Neuroscience, Special Emphasis Panel, ZRG1 MDCN-N (04)
- 2015 National Institute of Health, Biobehavioral Regulation, Learning and Ethology (BRLE) Study Section, Ad Hoc (February 2015)

- 2015 National Institute of Health, Biobehavioral Regulation, Learning and Ethology (BRLE) Study Section, Ad Hoc (June 2015)
- 2015 National Institute of Health, Molecular, Cellular and Developmental Neuroscience, Special Emphasis Panel, ZRG1-MDCN-G-04
- 2015 National Institute of Health, AIDS and AIDS Related Research, Special Emphasis Panel, ZRG1-AARR-K(02)
- 2015 National Institute of Health, Program Project: Drug Addiction, Special Emphasis Panel ZRG1-IFCN-B (40) P

Editorial Boards

Drug and Alcohol Dependence (2008 - 2015)
BMC Genomics, Associate Editor (2010-2011),
Section Editor for Proteomics (2011-)
Frontiers in Psychiatry: Addictive Disorders – Review Editor (2010 -)
Frontiers in Neurogenomics – Review Editor (2011 -)
World Journal Of Psychiatry (2011-)
Addiction and Neuropharmacology (2012 -)
Journal of Addiction Medicine and Therapy (2013 -)

Other Editorial Affiliations (ad hoc review)

Addiction Biology
Aging Cell
The American Journal of Geriatric Psychiatry
Archives of General Psychiatry
Annals of Neurology
Behavioral Neuroscience
Biochemical Pharmacology
Biological Psychiatry
BMC Genomics
Brain Research
Brain Structure and Function
Current Drug Safety
Drug and Alcohol Dependence
International Journal of Molecular Sciences
International Journal for Neuropsychopharmacology
Journal of Neurochemical Research
Journal of Neurochemistry
Journal of Neuroimmune Pharmacology
Journal of Neuroscience

Journal of Neuroscience Methods
Journal of Neuroscience Research
Journal of Pharmacology and Experimental Therapeutics
Journal of Proteome Research
Methods
Molecular Brain Research
Molecular Pharmacology
Molecular Psychiatry
Neurochemical Research
Neurobiology of Aging
Neuropharmacology
Neuropsychopharmacology
Neuropsychiatric Genetics
NeuroRx
Neuroscience
Neuroscience and Biobehavioral Reviews
Neuroscience Letters
Neurotoxicology
Pharmacology, Biochemistry and Behavior
Proceedings of the National Academy of Sciences, USA
Proteomics
Psychopharmacology
Synapse

External Advisory Boards and Consultancies

1999	Glaxo-Smith Kline
1999-2004	Georgia Research Alliance (GRA) -co-authored the Next Generation Gene Discovery Cluster Genomic Cluster \$11,740,000 -advisor for functional genomics and proteomics technology -member of GRA Proteomic Project Steering Committee
2000-2001	Solvay Pharmaceuticals
2001	Novartis Ophthalmics
2007	Ortho-McNeil Janssen Scientific Affairs
2007	Johnson and Johnson Pharmaceuticals
2009-present	External Advisory Council (Named Chair in 2013), Center of Biomedical Research Excellence Center for Research

Excellence – Natural Products in Neuropharmacology at the University of Mississippi

2012-2013 External Advisory Board, Silvio O. Conte Center for Schizophrenia Research, NYU Langone Medical Center, Nathan Kline Institute for Psychiatric Research

INSTITUTIONAL SERVICE:

Emory University

1999-2001 Director, Emory Health Sciences Microarray Core Facility

1999-2004 Member, Emory Health Sciences Microarray Core Facility Advisory Council

2001 Participant, Basic Science Research Focus Group for information technology issues concerning Woodruff Health Sciences Center

2001 Representative, The International Genomics Consortium: The Role of Academic Institutions, Baltimore, Maryland

2001 Representative, The International Genomics Consortium: Phoenix, AZ

2001 Member, Graduate Neuroscience Subcommittee for Biochemistry Course Development

2001-2004 Organizer, Division of Neuroscience, Yerkes Primate Center Research Seminar Series

2002-2004 Member, Steering Committee for Biomedical Computing Center of Excellence

2003-2004 Member, Graduate Neuroscience Qualifying Examination Standing Committee

Wake Forest University

2004 - 2012 Member, Genomics Center Oversight Committee (University)

2004 - 2012 Member, Promotions Committee (Departmental)

2004 - 2010 Chair, Core Facilities Committee (Departmental)

2005 - 2006	Member, Research Advisory Committee (University)
2005 - 2006	Research Advisory Committee; Subcommittee on Post-doctoral Education
2005 - 2006	Member, Dean's Advisory Committee (University)
2005 - 2006	Chair, Seminar Series (Departmental)
2005 - 2008	Member, Basic Dollar Financial Evaluation Committee (Departmental)
2006 - 2010	Chair, Curriculum Committee (Departmental)
2008 - 2009	Member, Animal Care and Use Committee (University)
2008 - 2011	Member, Institutional Grant Review Committee (University)
2009 - 2011	Member, Research Advisory Committee (University)
2010 - 2013	Member, Recruitment Committee (Departmental)
2012 - present	Member, Conflict of Interest Committee

High Point University

2014 - present	Member, Executive Committee, School of Pharmacy
2014 – present	Member, University Research Committee (HPU)
2014 – present	Member, Professional Growth Committee (HPU)
2015 – 2016	Member, Institutional Animal Care and Use Committee (HPU)
2016	Faculty Compensation Committee (HPU)

PROFESSIONAL MEMBERSHIPS AND SERVICE:

1988 - present	Regular Member, Society for Neuroscience
1994 - present	Regular Member, College on Problems of Drug Dependence (Travel Award Committee Member 1999-2002) (Program Committee Member 2005-2008)

2002 - present	Member, The American Society for Neurochemistry
2004 - present	Member, Society of Biological Psychiatry
2006 - present	Member, American Society of Pharmacology and Experimental Therapeutics - Neuropharmacology Division (Nomination Committee 2007-present)
2006 - 2012	Member, International Society for Biomedical Research on Alcoholism
2006 - 2012	Member, Research Society on Alcoholism
2011 - present	Member, US Human Proteomics Organization

HONORS AND AWARDS:

1992	European Behavioral Pharmacology Society Travel Award, Cambridge, England
1995	Federation of American Societies for Experimental Biology Travel Award
1997	College on Problems of Drug Dependence Travel Award
1997	First recipient of the Walter Sonneborn Katz Young Investigator Award, National Alliance for Research on Schizophrenia and Depression
1998	National Institute on Drug Abuse Director's Travel Award, College on Problems of Drug Dependence
2001	Executive Committee, Non-Human Primate Genome Project Initiative
2006	International Society for Biomedical Research on Alcoholism, Travel Award
2010	Scientific Committee, Translational Research in Psychiatry Meeting, Innsbruck, Austria

GRANTS: CURRENT AND PENDING:

Current:

U01MH103392 (Akbarian PI – Mt. Sinai; Hemby subcontract) 06/15/14-05/31/17
NIH/NIMH: Cis-regulatory epigenome mappings in schizophrenia
Provide expertise on non-human primate neuroanatomy, tissue from collection of antipsychotic treated monkeys

Past:

P50 DA06634 (Childers, PI) 04/01/10 – 03/31/14
NIH/NIDA

Center for the Neurobiological Investigation of Drug Abuse
Project 3 Leader (Hemby): Biochemical Mechanisms of Effective Treatments
Oversight of project and integration with other projects and cores in the Center. Direct investigations into alterations and restoration of synaptic plasticity in primate and rodent models.

Pilot Award 12/01/13 – 11/30/14
Center for Comparative Medicine, Wake Forest School of Medicine
Model of Developmental Psychiatric Disorders by Gestational Infection

Yale/NIDA Proteomics Center 06/01/10 – 05/30/14
NIDA
Project Leader

R01 DA012498 (Hemby PI) 03/01/07-11/29/13
NIH/NIDA: Neurobiology of Speedball Self-Administration
Investigate the mechanisms for the potentiation by heroin of cocaine's neurochemical and reinforcing effects using microdialysis, protein and mRNA assessments.

R24AA019431 (Daunais) 09/01/09 – 08/30/13
NIH/NIAAA
Monkey Alcohol Tissues Research Resource
Provide advice and feedback on tissue procurement and distribution, quality control and data management

R01 AA016177-A2 (Lynch, UVA, PI; Hemby subcontract) 07/15/08 – 06/30/13
Hemby - collaborator
Rat Models of Alcohol Dependence for Evaluating Combined Medication Effects
Provide assistance and consultation for microdialysis, HPLC and infrared Western blot analysis

R21 DA027512-01 (Hemby, PI) 9/01/09 - 08/31/12
NIH/NIDA: Proteomic biosignatures of withdrawal from cocaine in rhesus monkeys
Identification of plasma protein biomarkers during various stages of cocaine withdrawal and determine their ability to serve as surrogates for CNS pathology

Astra Zeneca (Hemby PI) 10/01/09-09/30/12

Behavioral and Biochemical Assessment of Quetiapine in a Non-Human Primate Model of Stress-Induced Depression
Biochemical assessment of neurotrophic signaling in dorsolateral prefrontal cortex and hippocampus

R01 NS066583-01 (Hegde PI, Hemby co-investigator) 07/01/09-06/30/12
Local Mechanisms Underlying Synaptic Plasticity
iTRAQ labeling and proteomic analysis from hippocampal slices.

Research Award (Hemby PI) 08/01/05-07/31/11
Stanley Medical Research Institute
Non-Human Primate Brain Bank for Antipsychotic Research
Bank of tissue from macaca mulatta administered haloperidol and clozapine for 6 months.

R01 NINDS (Hegde PI, Hemby co-investigator) 7/01/09-6/30/12
Hemby collaborator
Local Mechanisms Underlying Synaptic Plasticity
iTRAQ labeling and proteomic analysis from hippocampal slices.

R01 MH074313 (Hemby PI) 08/01/05-07/31/12
NIMH/NIH: Entorhinal Transcriptome in Schizophrenia
Provide detailed cellular profiles of human schizophrenic brain tissue from entorhinal cortex and compare profiles of non-human primates with chronic antipsychotic drug administration histories.

R01 DA003628-19 (Hemby PI) 03/01/06-02/28/09
NIDA/NIH
Neurobiological Parameters of Cocaine Reinforcement
Biochemical evaluations of cholinergic transmission during cocaine self-administration.

Alzheimer's Association (Hegde PI, Hemby co-investigator) 08/01/08 – 07/31/09
Ameliorating Harmful Abeta Effects on Synaptic Plasticity
Oversight of iTRAQ labeling and proteomic analysis from hippocampal slices.

R01 DA013234 Hemby (PI) 09/30/01-07/31/07
NIDA/NIH
Accumbens-Pallidal GABA and Morphine Reinforcement
The goal of this project is to elucidate the role of accumbens-pallidal GABAergic medium spiny neurons under chronic morphine self-administration conditions.

R01 DA13772-01 Hemby (PI) 09/15/01-08/30/04
NIDA/NIH
Molecular Fingerprint of Cocaine Abuse: Single Cell and Regional Analysis

Elucidate and compare patterns of gene expression in the mesolimbic dopamine pathway in human post-mortem tissue from cocaine overdose victims and age-matched controls.

Research Award Hemby (PI) 08/01/01-07/31/04
Stanley Foundation Research Programs
Molecular fingerprint of dopamine neurons: Relation to axonal target and effects of schizophrenia and neuroleptic treatment
Gene expression of midbrain dopamine neuronal populations defined by their projection targets and the effects of neuroleptic treatment.

Research Award Hemby (PI) 08/01/03-07/31/05
Stanley Foundation Research Programs Institute
Functional genomics and proteomics analysis of rhesus monkeys treated with typical and atypical neuroleptic

Research Award Hemby (PI) 07/01/00-06/30/02
National Alliance for Autism Research
Gene expression profiling of Autism: Alterations in temporal lobe profiles
Functional genomic analysis of post-mortem brain tissue from individuals diagnosed with Autism

R01 DA022599 (Martin PI; Hemby Co-I) 09/26/06 – 06/30/10
NIH/NIDA: Role of the Amygdala in Opioid Self-Administration in Rats with Chronic Pain
Provide analytical support for capillary electrophoretic analysis of amino acids.

BIBLIOGRAPHY:

Edited Books:

1. ***Functional Genomics and Proteomics in the Clinical Neurosciences***. Elsevier: New York, (ed. S.E. Hemby and S. Bahn). Elsevier Publishing, New York (2006).

Book Chapters:

1. D.S. Saunders, S.E. Hemby, and A.W. Hayes (1994). Neurotoxicity of organochlorine insecticides, polychlorinated biphenyls and polychlorinated dibenzo-*p*-dioxins. In P.J. Vinken and G.W. Bruyn (eds.), F.A. de Wolff (vol. ed.): ***Handbook of Clinical Neurology, Vol 20 (64), Intoxications of the Nervous System, Part I***. Elsevier: New York, pp. 197-210.
2. S.E. Hemby, S.I. Dworkin and B.A. Johnson. (1997). Neuropharmacological basis of drug reinforcement. In: B.A. Johnson and J.D. Roache (eds.), ***Drug Addiction and Its Treatment: Nexus of Neuroscience and Behavior***. Raven Press, New York, pp. 137-169.
3. J. Eberwine, P. Crino, S. Arnold, J. Trojanowski, and S. Hemby (1997). Molecular analysis of the single cell: importance in the study of psychiatric disorders. In: S. Watson (ed.), ***Psychopharmacology: Fifth Generation of Progress***. Lippincott-Raven Press, New York, (CD-ROM version).
4. S.E. Hemby (2003). The neurobiology of alcohol addiction. In: B.A. Johnson, P. Ruiz, and M. Glanter (eds.) ***Alcoholism: A Practical Handbook***. Lippincott Williams & Wilkins, Baltimore pp. 10-18.
5. W.H. Fasulo and S.E. Hemby (2004). Signal transduction abnormalities in schizophrenia: new treatment options, In: J.A. den Boer, G.J. ter Horst, and M. George (eds.), ***Current and Future Developments in Psychopharmacology***. Benecke N.I., Amsterdam, pp. 231-256.
6. S.D. Ginsberg, S.E. Hemby, E.J. Mufson and L.J. Martin (2005). Cell and tissue microdissection in combination with genomic and proteomic applications, In: L. Zaborszky, F.G. Wouterlood, J.L. Lanciego (eds.), ***Neuroanatomical Tract-Tracing 3: Molecules - Neurons & Systems***. Springer/Kluwer/Plenum Publishers, Amsterdam, pp. 109-141.
7. S.E. Hemby and J.A. O'Connor. (2007). Transcriptional regulation in schizophrenia. In: E.F. Walker and D. Romer, (eds.), ***Adolescent Psychopathology and the Developing Brain: Integrating Brain and Prevention Science***, Oxford University Press: New York pp. 103-123.

8. S.E. Hemby and N. Tannu (2010). **Modeling substance abuse for applications in proteomics**. In: A. Otten (ed.), *Neuroproteomics: Methods in Molecular Biology*, Humana Press: Totowa, NJ, pp. 69-83.
9. W. Lynch and S.E. Hemby (2011) Drug reinforcement in animals. In: B.A. Johnson (ed.), *Addiction Medicine*, Springer Publishing: New York, pp. 117-128.
10. S.E. Hemby, W. Lynch and N. Tannu (2011). Novel methodologies: Proteomic approaches in substance abuse research. In: B.A. Johnson (ed.), *Addiction Medicine*, Springer Publishing: New York, pp. 359-378.

Journal Articles:

1. S.E. Hemby, G.H. Jones, D. B. Neill and J.B. Justice, Jr. (1992). Six hydroxydopamine lesions of the medial prefrontal cortex fail to influence cocaine place conditioning. *Behavioral Brain Research*, 49 (2): 225-230.
2. S.E. Hemby, G.H. Jones, J.B. Justice, Jr. and D.B. Neill (1992). Conditioned locomotor activity but not conditioned place preference following microinjections of cocaine into the nucleus accumbens. *Psychopharmacology*, 106: 330-336.
3. M.S. Hooks, G.H. Jones, S.E. Hemby and J.B. Justice, Jr. (1993). Environmental and pharmacological sensitization to repeated peripheral and intra-nucleus accumbens cocaine. *Psychopharmacology*, 111:109-116.
4. S.E. Hemby, G.H. Jones, D. B. Neill and J.B. Justice, Jr. (1994). Assessment of the relative contribution of peripheral and central components in cocaine place conditioning. *Pharmacology, Biochemistry & Behavior*, 47 (4): 973-979.
5. S.E. Hemby, C. Co, D. Reboussin, H. Davies, S.I. Dworkin and J.E. Smith (1995). Comparison of a novel tropane analog, 2 β -propanoyl-3 β -(4-tolyl) tropane (PTT) with cocaine HCl in rats: nucleus accumbens extracellular dopamine and motor activity. *The Journal of Pharmacology and Experimental Therapeutics*, 273: 656-666.
6. S.E. Hemby, T.J. Martin, C. Co, S.I. Dworkin and J.E. Smith (1995). The effects of intravenous heroin administration on extracellular nucleus accumbens dopamine concentrations as determined by *in vivo* microdialysis. *The Journal of Pharmacology and Experimental Therapeutics*, 273: 591-598.
7. S.E. Hemby, J.E. Smith and S.I. Dworkin (1996). The effect of eticlopride and naltrexone on responding maintained by food, cocaine, heroin and cocaine/heroin combinations in rats. *The Journal of Pharmacology and Experimental Therapeutics*, 277: 1247-1258.

8. P. Crino, S. Hemby and J. Eberwine (1996) Utility of *in situ* transcription, single cell nucleic acid amplification and expression profiling in the study of central nervous system development. ***Journal of Analytical Morphology***, 3: 203-206.
9. S.E. Hemby, I. Lucki, G. Gatto, A. Singh, C. Thornley, J. Matasi, N. Kong, J.E. Smith, H.M.L. Davies and S.I. Dworkin (1997). Potential antidepressant effects of novel tropane compounds, selective for serotonin or dopamine transporters. ***The Journal of Pharmacology and Experimental Therapeutics***, 282: 727-733.
10. S.E. Hemby, C. Co, T.R. Koves, J.E. Smith and S.I. Dworkin (1997). Differences in nucleus accumbens extracellular dopamine concentrations between response-dependent and response-independent cocaine administration. ***Psychopharmacology***, 133: 7-16.
11. P. Crino, K. Khodakhah, K. Becker, S. Ginsberg, S. Hemby and J. Eberwine (1998). Presence and phosphorylation of transcription factors in developing dendrites. ***Proceedings of the National Academy of Sciences*** 95: 2313-2318.
12. S. Hemby (1999). Biology of addiction. Recent advances in the biology of addiction. ***Current Psychiatry Reports***, 1: 159-165.
13. S.E. Hemby, C. Co, S.I. Dworkin and J.E. Smith (1999). Synergistic elevations in extracellular dopamine concentrations in the nucleus accumbens during self-administration of cocaine/heroin combinations (speedball) in the rat. ***The Journal of Pharmacology and Experimental Therapeutics***, 288:274-280.
14. S.D. Ginsberg, P.B. Crino, S.E. Hemby, J.A. Weintgarten, V.M-Y. Lee, J.H. Eberwine and J.Q. Trojanowski (1999). Predominance of neuronal mRNAs in individual Alzheimer's Disease senile plaques. ***Annals of Neurology***, 45: 174-181.
15. S.D. Ginsberg, S.E. Hemby, J.A. Weintgarten, V.M-Y. Lee, J.H. Eberwine and J.Q. Trojanowski (2000). Gene expression profiles of senile plaques and tangles in Alzheimer's Disease. ***Annals of Neurology***, 48: 77-87.
16. J. Rogers, G. Baskin, R. Bumgarner, M. Cherry, S. Hemby, L. Hood, J. Jung, M. Katze, L. Lyons, R. McIndoe, S. Ojeda, G. Schatten and D. Watkins (2001). Recommendations for Future Efforts in Primate Genomics. NCCR, <http://www.nccr.nih.gov/compmed/primategenomics20010606.asp>
17. S. E. Hemby, M.M. Sanchez, and J.T. Winslow (2001) Functional genomics approaches to a primate model of autistic symptomology. ***Journal of Autism and Developmental Disorders***, 31: 551-555.
18. S.E. Hemby, S. Ginsberg, B. Brunk, S.E. Arnold, J.Q. Trojanowski, and J.H. Eberwine (2002) Gene expression profile for schizophrenia: discrete neuron

- transcription patterns in the entorhinal cortex. *Archives of General Psychiatry*, 59: 631-640.
19. W. Hasenkamp and S.E. Hemby (2002). Gene expression profiling in psychiatric illness. *Progress in Brain Research*, 138: 277-395.
 20. S.M. Kaech, S.E. Hemby, E. Kersh and R. Ahmed (2002). Delineating Memory CD8 T cell development: gene expression profiles change as memory cell qualities are progressively acquired following acute viral infection. *Cell*, 111:837-851.
 21. S.E. Hemby, J.Q. Trojanowski, and S.D. Ginsberg (2003). Neuron specific age related decreases in dopamine receptor subtype mRNAs *Journal of Comparative Neurology*, 456: 176-183.
 22. W. Tang, W. Fasulo, D. Mash, S. Hemby (2003). Molecular profiling of midbrain dopamine regions in cocaine overdose victims. *Journal of Neurochemistry*, 85: 911-924.
 23. W.H. Fasulo and S.E. Hemby. (2003) Time-dependent changes in gene expression profiles of midbrain dopamine neurons following haloperidol administration. *Journal of Neurochemistry*, 87: 205-219.
 24. E. Backes, M. Wesley, S. E. Hemby. (2003). Discrete cell gene profiling of ventral tegmental-accumbal dopamine neurons following cocaine self-administration. *Journal of Pharmacology and Experimental Therapeutics*, 307:450-459.
 25. W. Tang, M. Wesley, W. Freeman, B. Liang, and S. E. Hemby. (2004). Alterations in ionotropic glutamate receptor subunits during cocaine self-administration and withdrawal in rats. *Journal of Neurochemistry*, 89:1021-1033.
 26. S.E. Hemby. (2004). Morphine-induced alterations in gene expression of nucleus accumbens medium spiny neurons. *Neuroscience*, 126:689-703.
 27. J. M. Verkuyl, S.E. Hemby and M. Joëls. (2004). Chronic stress attenuates GABAergic inhibition and alters gene expression of parvocellular neurons in the hypothalamus. *Eur J Neuroscience* 6:665-1673.
 28. W. Freeman and S.E. Hemby (2004). Proteomic approaches in the neurosciences. *J. Neurochemical Research*, 29:1065-1081.
 29. S.D. Ginsberg, I. Elarova, M. Ruben, F. Tan, S.E. Counts, J.H. Eberwine, J.Q. Trojanowski, S.E. Hemby, E.J. Mufson, and S. Che (2004). Single cell gene expression analysis: implications for neurodegenerative and neuropsychiatric disorders. *J. Neurochemical Research*, 29:1053-64.

30. R. Moffitt, J. Phan, S. Hemby, M. Wang (2005). Effect of outlier removal on gene marker selection using support vector machines. ***Conf Proc IEEE Eng Med Biol Soc.***1:917-20.
31. S.E. Hemby, W. Tang, and B. Horman (2005). Regulation of glutamate receptor subunits following cocaine self-administration. ***Brain Research***, 1064:75-82.
32. S. E. Hemby, W. Tang, E.C. Muly, M.J. Kuhar, L. Howell, D.C. Mash (2005). Cocaine-induced alterations in nucleus accumbens ionotropic glutamate receptor subunits in human and non-human primates. ***Journal of Neurochemistry***, 95:1785-1793.
33. N. Tannu and S.E. Hemby (2006). Two dimensional fluorescence difference gel electrophoresis (2D-DIGE) for comparative proteomics profiling. ***Nature Protocols***, 1:1732-1742.
34. J. O'Connor, E.C. Muly, S.E. Hemby. (2006). Molecular mapping of striatal subregions in *Macaca Mulata*. ***Experimental Neurology***, 198:326-337.
35. N. Tannu and S.E. Hemby (2006). Quantitation in two dimensional fluorescence difference gel electrophoresis (2D-DIGE): effect of protein fixation. ***Electrophoresis***, 27:2011-1015.
36. J. O'Connor, W. Hasenkamp, B. Horman, E.C. Muly and S.E. Hemby (2006). Region specific regulation of NR1 subunit in rhesus monkeys following chronic antipsychotic drug administration. ***Biological Psychiatry***, 60:659-662.
37. J.E. Smith, C. Co, M. Collier, S.E. Hemby and T.J. Martin (2006). Heroin potentiates the reinforcing effects of cocaine and enhances the effects of cocaine on the extracellular fluid levels of nucleus accumbens dopamine. ***Neuropsychopharmacology***, 31:139-150.
38. S.E. Hemby, Joann O'Connor, G. Acosta, D. Floyd, N. Anderson, B.A. McCool, D. Friedman, K.A. Grant. (2006). Ethanol-induced regulation of GABAA subunit mRNAs in prefrontal fields of cynomolgus monkeys. ***Alcoholism: Clinical and Experimental Research***, 30:1978-1985.
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70. R.E. Brutcher, M. Parvizi, M.A. Nader and S.E. Hemby (In press). Comparative behavioral and biochemical assessment of chronic quetiapine and venlafaxine administration in a non-human primate model of stress-induced depression. **Wake Forest Journal of Science and Medicine**.
71. J. Morales-Corraliza, H. Wong, M.J. Mazzella, J.D. Wagner, S.E. Hemby, S.D. Ginsberg, and P.M. Mathews (In press). AD-like biochemical profile in non-human primate model of diabetes mellitus. **Journal Of Neuroscience**.
72. N. Tannu, S.D. Ginsberg and S.E. Hemby (Submitted). Synaptic proteomic analysis of rhesus monkey entorhinal cortex and hippocampus.

Manuscripts in preparation:

1. C.L. Lin, A. Dincer, E.L Giannaris, Y. Guo, A. Akintobi, J. Neary, V. Haroutunian, A. Lessard, W.E. Bunney Jr., J. Straubhaar, S. E. Hemby and S. Akbarian. White matter neuron excess and prefrontal transcriptomes in schizophrenia and related disease.
2. T. Halene, A. Dincer , A. Kozlenkov , P. Croxson , A. Mitchell , E. Giannaris , Y. Jiang , P.R. Hof , P. Roussos , S. Dracheva , S. Hemby, S. Akbarian. Shifted cell compositions in prefrontal cortex and white matter after clozapine exposure.
3. S. McIntosh and S.E. Hemby. Transcriptional profiling of midbrain dopamine neurons following self-administration of cocaine, heroin and speedball.
4. N. Tannu, S. Sun, R. Pintal and S.E. Hemby. Membrane proteome analysis of superior temporal gyrus in non-human primates following chronic antipsychotic administration demonstrates drug specific changes.
5. N. Tannu, S. Sun, R. Pintal, S.E. Arnold and S.E. Hemby. Membrane proteomic analysis of superior temporal gyrus in schizophrenics and controls.
6. J. A. O'Connor, G. Acosta, E.C. Muly and S.E. Hemby. Effects of antipsychotic administration on NMDA and NR1 receptor splice variant mRNAs in the primate DLPFC: comparison with schizophrenia and bipolar disorder.
7. S. McIntosh, B. Horman, S.E. Hemby. Speedball self-administration induces synergistic increases in extracellular dopamine and serotonin in specific regions of the mesolimbic pathway.
8. G. Acosta, E. Rogaevev, Y. Jiang, S. Akbarian and S.E. Hemby. Antipsychotic regulated BDNF/trkB mRNA and protein expression in the dorsolateral prefrontal cortex of rhesus monkeys following chronic administration.
9. S. McIntosh, C. Colangelo, L. Li and S.E. Hemby. Targeted proteomic profiling of nucleus accumbens membrane fractions following self-administration of cocaine, heroin and cocaine/heroin combinations.

Abstracts: (denotes oral presentation; ### session chair)**

1. H.O. Pettit, S.E. Hemby, J.B. Justice, Jr., & D.B. Neill (1988). Extracellular dopamine concentrations in the nucleus accumbens during self-stimulation of the ventral tegmental area and the lateral hypothalamus. Satellite Symposium of the Society for Neuroscience, Montreal, Canada.
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cocaine administration. Joint Meeting of the British Association for Psychopharmacology and European Behavioural Pharmacology Society, Cambridge, England.

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65. ~~###~~ S.E. Hemby (2012). Symposium: Losing GABA/Glutamate Balance in Alcoholism. The International Society for Biomedical Research on Alcoholism, Sapporo, Japan.
66. S. L. Willard, D. R. Riddle, M.E. Forbes, S.E. Hemby, S. McIntosh, B. Uberseder, C.A. Shively (2012). Cellular and molecular factors contributing to hippocampus size in an adult female monkey model of depression. The Annual Meeting of the Society for Neuroscience, New Orleans, LA
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69. ****S.E. Hemby (2013) Models of HIV and intravenous drug abuse: behavioral and neurobiological outcomes. Consequences of Substance Abuse Addiction in NeuroAIDS, International Symposium on Neurovirology, Washington, DC**

Miscellaneous:

1. **Emory Report**, December 2000. "Hemby's study dusts cocaine addiction for prints." Article focuses on our efforts to use translational approaches combined with high throughput genomics technologies to identify neuropathology of addiction.
2. **Science Daily (www.sciencedaily.com)**, December 2000. "Molecular Fingerprint Identified For Cocaine Addiction." Article reports on the presentation of data indicating our identification of a molecular profile of cocaine addiction in human brain – the first such study.
3. **Georgia Tech Research News**, January 2001. "Bioinformatics: The art and science of decoding life." Interviewed for article that included opinions of use of DNA microarray technology and our current research efforts.

4. **Emory Magazine**, 2001. “Exposing the Roots of Addiction.” Interviewed for article which emphasizes our contribution to the multi-tiered approach to study addiction at Emory University School of Medicine.
5. **Barton College Scope Magazine**, Fall 2001. “The right choice.” Article focuses on my academic and professional development especially as it relates to Barton College.
6. **Director's Report to the National Advisory Council on Drug Abuse**, May, 2004. “Molecular Profiling of Midbrain Dopamine Regions in Cocaine Overdose Victims.” The Director shared the importance of the results of our study to identify the molecular pathology associated with chronic cocaine use on human brain.
7. **Visions Magazine** (WFUBMC), Spring/Summer 2005. “On the Path of Protein Study.” Article describes the proteomics effort at WFUBMC. Interviewed as to our proteomics approaches and the advances provided to the study of neuropsychiatric illness.
8. **Drug Discovery and Development Magazine**, October, 2006. ““Omics” shines new light on neuroscience,” by James Netterwald. Interviewed for article by author to discuss the promise of genomic and proteomic approaches for neuroscience related disease.
9. **Science Daily (www.sciencedaily.com)**, November 2006. “High-tech Research Shows Cocaine Changes Proteins And Brain Function.” Article reports on the identification of a broad scale protein profile of cocaine addiction in human brain – the first such study – using high tech proteomic approaches.
10. **Newswise.com**, “Research Team to Analyze Brain Changes in Schizophrenia.” August, 2006. Copy of news release from WFU on our funding to study biochemical alterations in the brains of schizophrenics as well as antipsychotic induced changes in rhesus monkeys.
11. **Voices and Viewpoints, WFDD 88.5 FM**, January 2007. Interviewed by Diane Green regarding our efforts to delineate the pathology associated with schizophrenia in human post-mortem tissue and to dissociate disease from drug effects using a non-human primate model of antipsychotic administration.
12. **Journal of the American Medical Association article**, October 10, 2007 entitled “Topiramate for treating alcohol dependence: a randomized controlled trial.” Acknowledged for service on Topiramate for Alcoholism Advisory Board.
13. **Drug Discovery and Development Magazine**, February, 2007. “Spot On,” by James Netterwald. Interviewed for article by author to discuss the use of two-dimensional difference in gel electrophoresis (2D-DIGE) technology.

INVITED PRESENTATIONS:

Seminars:

1. Association for Behavioral Analysis, 20th Annual Convention, Atlanta, GA, 1994: *The use of in vivo microdialysis to evaluate the neurochemical correlates of the behavioral effects of drugs.*
2. American Society for Neurochemistry, 26th Annual Meeting, Santa Monica, CA, 1995: *The use of in vivo microdialysis to evaluate the role of nucleus accumbens dopamine in the reinforcing effects of cocaine and heroin in rats.*
3. The Scripps Research Institute, Neuroscience Lecture Series, La Jolla, CA, 1995: *Pharmacological and neurochemical assessment of the reinforcing effects of cocaine, heroin and cocaine/heroin combinations in rats.*
4. University of Pennsylvania School of Medicine, Department of Psychiatry, Treatment Research Center, 1996: *Pharmacological and neurochemical basis of speedball reinforcement.*
5. University of Pennsylvania School of Medicine, Department of Psychiatry, Treatment Research Center, 1997: *Single cell gene expression methodologies: applications for neuropsychiatric disorders.*
6. Yerkes Regional Primate Research Center, Emory University School of Medicine, 1998: *Molecular and neurochemical profiling of drug abuse: the role of context dependency*
7. University of Pennsylvania School of Medicine, Center for Neurobiology and Behavior, 1998: *Neurochemical and molecular profiling of drug abuse: regional and single cell analysis*
8. Medical College of Georgia, Institute of Molecular Medicine and Genetics Seminar Series, 1999: *A molecular analysis of neuropsychiatric disorders: expression profiling of individual neurons*
9. University of Pennsylvania School of Medicine, Center for Neurodegenerative Disease Research, 1999: *Single cell mRNA expression analysis of schizophrenia: A preliminary transcriptome of the disease*
10. Emory University, Department of Chemistry, 1999: *cDNA Microarrays and single cell gene expression technologies: insights into neuropsychiatric disorders*

11. Brown University, Department of Molecular and Cell Biology and Biochemistry, 2000: *Neurochemical and molecular profiling of drug abuse: regional and single cell analysis*
12. Georgia Area Science Writers Association, Atlanta, GA, 2000: *Functional Genomics: Academia and Industry*
13. The 2000 University System of Georgia Research Symposium, Athens, GA, 2000, Genomics: Research and Applications Session: *Gene Expression Profiling or "Molecular Fingerprinting" of Psychiatric Disorders*
14. Emory University, Frontiers in Neuroscience, 2000: *Molecular profiles of psychiatric disorders: schizophrenia, autism and substance abuse*
15. Florida State University, Department of Biology, 2000: *Neuroadaptive Responses to Chronic Drug Use: Molecular Fingerprinting of Abuse.*
16. Symposium on target discovery for schizophrenia using human brain tissue, Sponsored by Solvay Pharmaceuticals, Amsterdam, 2000: *Gene Expression in brains from schizophrenic patients.*
17. Primate Genomics Workshop, National Council on Research Resources, Seattle, Washington, 2001: *Genomic efforts of the Yerkes Regional Primate Center*
18. Medical University of South Carolina, Department of Neuroscience, 2002: *Glutamatergic involvement in cocaine abuse*
19. Wake Forest University, Department of Physiology and Pharmacology, 2003: *Cocaine-induced neuroadaptations: perspectives from humans, monkeys and rodents*
20. Stanley Medical Research Institute, 2004: *Profiling typical and atypical of antipsychotics in non-human primates.*
21. University of Pennsylvania, [Center for Neurobiology and Behavior](#), 2004: *Integrative Analysis of Human Cocaine Abuse: neuronal sensitization and molecular stress.*
22. Wake Forest University, Neuroscience Tutorial for Neuroscience Graduate Program, 2007: *Understanding the biochemistry of schizophrenia: separating disease from treatment.*
23. NIDA Intramural Program, 2011. *The neurobiology of cocaine/heroin combination self-administration.*
24. Wake Forest University, Molecular Pathology, 2011. *Proteomic analysis of neuropsychiatric disorders and treatment.*

25. The Scripps Research Institute, 2011. *Behavioral and neurobiological pathology associated with chronic speedball intake*
26. University of Nebraska Medical Center, Omaha, NE. (2012). *Translational neuroproteomic analysis of drug addiction.*

Invitations to Address National and International Meetings:

1. 14th European College of Neuropsychopharmacology Congress, 2001: *Gene Expression Profiling of CNS Disorders*. Istanbul, Turkey
2. 22nd International Summer School of Brain Research, 2001: Gene Expression Profiling and Psychiatric Disorders; Neural Plasticity in Aging and Neuropathology. Amsterdam, Netherlands
3. National Institute for Child and Human Development, 2002: Emerging Technologies for the Study of Reproductive Neuroendocrinology: *Application of Retrograde Labeling to Single Cell Gene Expression Technologies*. Bethesda, MD
4. College on Problems of Drug Dependence, 2003: *Changing proteins, changing brains: Microarray analysis of drug effects*. Miami, FL
5. General Electric Healthcare Sponsored Workshop, Human Proteomic Organization, 2004: *Protein profiling of psychiatric disorders*. Beijing, China
6. General Electric Healthcare Sponsored Functional Biology Tour, 2004: *Delineating proteomic and genomic profiles of psychiatric disorders*. Daejeon, South Korea
7. General Electric Healthcare Sponsored Functional Biology Tour, 2004: *Delineating proteomic and genomic profiles of psychiatric disorders*. Bangkok, Thailand
8. General Electric Healthcare Sponsored Functional Biology Tour, 2004: *Delineating proteomic and genomic profiles of psychiatric disorders*. Hyderabad, India
9. The Adolescent Risk Communication Institute (ARCI) of the Annenberg Public Policy Center at Penn, 2005: *Neuroscience and Prevention Science in the Study of Developmental Psychopathology: Transcriptional Regulation in Schizophrenia*. Philadelphia, PA
10. World Psychiatric Association - International Congress, 2006: *The neurobiological mediators and consequences of alcoholism*. Istanbul Turkey
11. International Society for Biomedical Research on Alcoholism – International Congress, 2006: *Mechanisms of transcriptional regulation in the alcoholic brain*. Sydney Australia

12. International Society for Biomedical Research on Alcoholism – International Congress, 2006: *Ethanol self-administration and the regulation of GABA alpha subunit mRNAs in frontal cortical areas of cynomolgus monkeys*. Sydney Australia
13. National Institute on Drug Abuse, In Search of Signatures of Chronic Drug Use Workshop, 2007: *Potential proteomic biomarkers for cocaine addiction: preliminary assessments from rhesus monkeys*. Bethesda, MD.
14. First International Symposium on Addiction Medicine: Neurobiology of Addiction to Alcohol and Other Drugs, 2008: *Role of cortical GABA and glutamate dysregulation in alcoholism: disease and treatment*. San Jose, Costa Rica.
15. International Society for Neurochemistry, 2008. *The Neurochemistry of Drug Dependence: Beyond Dopamine: Proteomic profiling of cocaine addiction in the primate brain*. Busan, South Korea.
16. Human Proteomics Organization (HUPO), 2009. Proteomic analysis of cocaine addiction: Insights into the pathology of the addicted brain. Toronto, Canada.
17. International Meeting on New Opportunities and Challenges in the Treatment of Addictions (2009). Neurobiology of addiction. Mexico City, Mexico.
18. Translational Research in Psychiatry Meeting (2010). Proteomics in addiction workshop. Innsbruck, Austria.
19. Research Society on Alcoholism (2011). GABA and glutamate gene expression in prefrontal cortical fields following chronic ethanol self-administration in macaque monkeys.
20. Human Brain Proteomic Project (2012). Proteomic approaches for identifying and understanding substance abuse. Sao Paulo, Brazil.
21. College on Problems of Drug Dependence, Palm Springs, CA. (2012). Identification of biomarkers relevant for addiction diagnosis and treatment efficacy.

GRADUATE STUDENTS/RESIDENTS/FELLOWS ADVISED:

Graduate Students:

1. Wendy Hasenkamp (graduated 2005)
Wake Forest University
Woodruff Fellowship (Emory University), NIDA NRSA
NMDA Receptors in the Entorhinal Cortex in Schizophrenia
Current position: Program and Research Director at the Mind and Life Institute
2. Joann O'Connor (graduated 2006)
James Madison University
Mechanisms of prefrontal hypoglutamatergia in schizophrenia
Current position: Scientist, Forest Laboratories
3. Eric Backes (graduated 2007)
Southern Mississippi University
NIDA NRSA
Neuroadaptive responses in midbrain dopamine subpopulations as a function of cocaine self-administration in rats
Current position: Senior Medical Writer, Amgen
4. Kathleen Egan (Fall 2007-Spring 2009)
Stetson University
Biochemical adaptations in primate cortex following ethanol self-administration
Current Position: Post-doc, Public Health Sciences, Wake Forest University
5. Lindsey Pattison (Fall 2008 – present)
James Madison University
Mechanisms of neurochemical synergy following opiate stimulant combinations
Current position: PhD Candidate
6. Elizabeth Burnett (Fall 2009 – 2012)
University of Arizona
Role of 5HT1A in chronic alcohol intake in primates
Current position: Post-doctoral Fellow, Medical University of South Carolina
7. Gena Dolson (Fall 2010-2011)
James Madison University
Effects of chronic ethanol on GABA receptors in the cerebellum
Current position: Independent Medical Writer
8. Mahsa Rivka (Fall 2011 – Spring 2013)
University of Delaware
Maternal immune activation and schizophrenia
Current Position: Graduate Student

Post-doctoral Fellows:

1. Sufian Al-Khaldi, PhD (1999-2000)
Current: Supervisor, Food and Drug Administration Array Facility, Washington, DC
2. Yuhua Li, MD (2000-2002)
Current: Lab Manager, Emory Health Sciences Microarray Facility
3. Wenxue Tang, MD (2001-2004)
Current: Research Associate, Department of Otolaryngology, Emory University School of Medicine
4. Jose Morales, PhD (2003-2004)
Current: Post doctoral Fellow, Yerkes Research Center, Emory University School of Medicine
5. Willard Freeman, PhD (2003-2004)
Current: Research Assistant Professor, Penn State University School of Medicine
6. Nilesh Tannu, MD (2005-2011)
Current: Medical Resident University of Texas Health Science Center at Houston

Dissertation Committees:

1. Elizabeth Burnett (Advisor: David Friedman, PhD)
2. Daniel Christian (Advisor: Brian McCool, PhD)
3. Joseph McQuail (Advisor: Michell Nicole, PhD)
4. Stephanie Willard (Advisor: Carol Shively, PhD)

COMMUNITY ACTIVITIES AND SERVICE:

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| 2000 | Youth Soccer Coach, Optimist League, Forsyth County, Georgia |
| 2004 | Board of Directors, National Alliance for Mental Illness (NAMI) Georgia
Chairman, Fundraising Committee (NAMI) Georgia |

- 2005-2008 Youth Soccer Coach, YMCA Central Forsyth, NC
- 2007-2009 National Alliance for Mental Illness (NAMI), Forsyth County, NC
- 2007-2012 Volunteer, Advocacy for the Poor, Winston-Salem, NC
- 2012-2014 Member, Addiction Recovery Committee, St. Paul's Episcopal Church
- 2012-2014 Community Representative, The Children's Home, Winston-Salem, NC
- 2012-present Guardian *Ad Litem*, Forsyth County, NC