

CURRICULUM VITAE

Roland Douglas Shytle, Ph.D.

OFFICES

Center for Excellence in Aging and Brain Repair
Department of Neurosurgery, MDC78
USF Health: College of Medicine
University of South Florida
12901 Bruce B. Downs Boulevard, Tampa, Florida 33612
Tel: (813) 974-1452 (assistant)
Tel: (813) 974-9171
Fax: (813) 974-3078
email: dshytle@usf.edu

OBJECTIVE

Research and Teaching in Translational Neuropsychopharmacology

EDUCATION

Ph.D. 1994
Neuroscience
University of Wyoming, Laramie WY

B.A. 1990, Experimental Psychology
University of North Carolina, Wilmington, NC

EMPLOYMENT

August 2008 - Present
Associate Professor (Tenure Track)
Course Director, MS in Medical Sciences/ Graduate Certificate, Aging & Neuroscience Concentration
Center for Excellence in Aging and Brain Repair,
Departments of Neurosurgery, Molecular Pharmacology & Physiology, and Neuroscience Program,
University of South Florida, USF Health: College of Medicine

June 1998 – July 2008
Assistant Professor
Center for Excellence in Aging and Brain Repair & Silver Child Development Center,
Department of Neurosurgery, University of South Florida, USF Health: College of Medicine

July 1994 - May 1996
Post-doctoral Research Fellow
University of South Florida, USF Health: College of Medicine, Tampa, FL

May 1996 - June 1998
Research Instructor

Current h-index: 44 (<https://scholar.google.com/citations?user=SNjumY4AAAAJ&hl=en>)

ACCOMPLISHMENTS

During my research career, I have developed primarily three research tracks. Below is a summary of my accomplishments in each area:

1) *Natural products in Drug Discovery Research*

- a) Interdisciplinary collaboration with Dr. Mike Zaworotko (USF Chemistry) on co-crystals as promising pharmaceuticals and nutraceuticals with composition of matter IP potential and improved bioavailability.
- b) First to publish with Dr. Jun Tan on the anti- β amyloid effects of green tea flavonoid, EGCG, as an alpha-secretase promoter in an animal model of Alzheimer's disease [*Journal of Neuroscience* 25(38):8807-14].
- c) Worked with USF start-up company, Natura Therapeutics, Inc., to develop novel nutraceutical formulations for the prevention of aging and neurodegenerative disease [*Stem Cells and Development*. 115: 118-123; *Rejuvenation Res.* 10(2):173-8.].

2) *Therapeutic potential of neuronal nicotinic acetylcholinergic receptor (nAChR) modulation*

- a) Played an essential role in conducting the first human trials of transdermal nicotine in Tourette's disorder [*Journal of Clinical Psychiatry*. 63(10):949-950] and Attention deficit hyperactivity disorder [*World Journal of Biological Psychiatry* 3:150-155].
- b) Developed a novel hypothesis for the therapeutic actions of antidepressants mediated by the inhibition of nAChRs [*Molecular Psychiatry*. 7:525-535]. This hypothesis was subsequently supported by three prospective controlled clinical trials conducted by independent groups using mecamylamine (Inversine®) and S-(+)-mecamylamine (TC-5214; Amplixa®).
- c) Co-Inventor of licensed USF intellectual property on the use of nAChR antagonists for the treatment of various neuropsychiatric diseases [*US Patents*: 6,034,079; 6,734,215; 6,979,698; & 7,101,916].
- d) First to publish on the role of nAChRs in modulation of microglial activation in the brain [*Journal of Neurochemistry*. 89:337-343; *Brain Research Bulletin* 64(2):165-70]. Received a multi-year NIH grant to further explore the therapeutic potential of nicotinic and cannabinoid therapy of the treatment of Alzheimer's disease.

3) *Clinical Research in Neuropsychiatry*

- a) Developed several new clinical scales for Neuropsychiatry research
 - 1) The Tourette's Disorder Scale (TODS) [*Assessment*. 10(3):273-287; *JAACAP*. 42(9):1013-4]
 - 2) The Rage Assessment Scale (RAScal) [*JAACAP*. 42(9):1013-4]
 - 2) The Hoarding Assessment Scale (HAS) [*Illness, Crisis, and Loss* 16(3): 227-236]
 - 3) The RAPID IDEAS Scale (RISc) [*collecting data for reliability and validation*]
- b) Co-developed a new structured interview for research in Child Neuropsychiatry called the MINI-KID for DSM-IV [*funded by a grant from GlaxoSmithKline*].

ACADEMIC AWARDS

1985	Beta Sigma Phi Academic Scholarship
1989	Communication Workers Association Academic Scholarship
1990	First Place Poster Award at the North Carolina Psychological Association
1993	University of Wyoming's Graduate Travel Assistance Award
1993	Lillian Porteneir Scholarship
2000	USF Creative Young Faculty Research Award
2002	Nominee for USF President's Award for Faculty Excellence
2004	Florida Alzheimer Center and Research Institute Award
2006	USF Health: Biotechnology Award
2007	USF Health: Silver Performance Award for Outstanding Contributions
2008	Tenure and Promotion to Associate Professor
2009	USF Excellence in Innovation Award

GRANT HISTORY (all funded unless otherwise stated)

May 1989 - May 1990 Principal Investigator <i>North Carolina Academy of Science</i> Effects of Dopamine Antagonists on Avoidance Behavior	Total Direct Cost: \$250
May 1994 - May 1998 Co-Investigator Paul R. Sanberg (PI) & Archie A. Silver (Co-PI) <i>NIH: National Institutes of Neurological Disorders and Stroke</i> Nicotine/Haloperidol Therapy in Tourette Syndrome	Total Direct Cost: \$337,592 (45% indirect cost) NS32067-02
May 1996 - May 1997 Co-Investigator & Grant Writer Paul R. Sanberg (PI) & Archie A. Silver (Co-PI) <i>NIH: National Institutes of Neurological Disorders and Stroke</i> Minority Supplement Grant for NS32067	Total Direct Cost: \$12,420 (45% indirect cost) NS32067
July 1996 - May 1998 Co-Investigator & Grant Writer Paul R. Sanberg (Co-recipient of the 1996 Ove Ferno Grant Prize) <i>Collegium Internationale Neuro-Psychopharmacologicum</i> Transdermal Nicotine for the treatment of Attention-Deficit Hyperactivity Disorder	Total Direct Cost: \$18,000

<p>May 1996 - May 1998 Grant Writer Paul R. Sanberg (PI) & Brian McConville (Co-PI) <i>Tourette Syndrome Association</i> Transdermal Nicotine and Haldol for Treatment of Tourette's Syndrome</p>	<p>Total Direct Cost: \$24,300 (15% indirect cost)</p>
<p>February 1998 - 1999 Principal Investigator <i>USF College of Medicine Equipment Grant</i></p>	<p>Total Direct Costs: \$7,000</p>
<p>December 1999 - January 2001 Principal Investigator Roger Papke (Co-PI) at the University of Florida <i>Layton BioScience, Inc.</i> Analysis of Mecamylamine Congeners on Human Nicotinic Receptor Subtypes</p>	<p>Total Direct Cost: \$40,000 (25% indirect cost)</p>
<p>May 2000 - May 2001 Principal Investigator Stan Nazian (Co-PI) <i>USF Creative Young Faculty Award</i> Role of Nicotinic Receptors in the Hypothalamic CRH Response to Acetylcholine</p>	<p>Total Direct Costs: \$7,500</p>
<p>October 2001 - October 2002 Principal Investigator Archie A. Silver (Co-PI) <i>Layton BioScience, Inc.</i> Behavioral and Neuropharmacological Profiles of Novel Nicotine Antagonists for Neuropsychiatric Disorders</p>	<p>Total Direct Cost: \$150,000 (25% indirect cost)</p>
<p>October 2002 - October 2003 Co-Principal Investigator Paul R. Sanberg (PI) & Archie A. Silver (Co-I) <i>Targacept, Inc.</i> Clinical Studies on mecamylamine (Inversine®) for Neuropsychiatric Disorders</p>	<p>Total Direct Cost: \$150,000 (25% indirect cost)</p>
<p>June 2003 - June 2005 Consultant Tony George (PI) @Yale University <i>Donahue Foundation</i> Clinical Study on Mecamylamine (Inversine®) for Depressed Smokers</p>	<p>Total Direct Cost: \$100,000</p>
<p>June 2003 - June 2005 Principal Investigator David Sheehan (Co-I) & Amaya Ramos (Co-I), Archie A. Silver (Co-PI) <i>Stanley Research Foundation</i> An Investigation of a Nicotinic Receptor Antagonist (Mecamylamine) for Bipolar Disorder</p>	<p>Total Direct Cost: \$200,000 (15% indirect cost)</p>

<p>January 2004 – January 2008 Co-Principal Investigator David Sheehan (PI) <i>GlaxoSmithKline</i> Validation and Reliability of the MINI-KID for DSM-IV</p>	<p>Total Direct Cost: \$200,000 (25% indirect cost)</p>
<p>July 2005 – July 2007 Principal Investigator Jun Tan (Co-I) <i>Florida Alzheimer's Center and Research Institute</i> Nicotine/Galantamine has a treatment for Alzheimer's disease</p>	<p>Total Direct Cost: \$250,000 (30% indirect cost)</p>
<p>January 2005 – January 2006 (not funded) Principal Investigator Wade Myers (Co-I) <i>Bristol Myers Squibb</i> Open Label Trial of Aripiprazole for Tourette's disorder</p>	<p>Total Direct Cost: \$50,000</p>
<p>March 2007 – February 2010 Principal Investigator Jun Tan (Co-I) <i>National Institutes of Health (R-21)</i> Nicotine/Cannabinoid Therapy for Alzheimer's disease</p>	<p>Total Direct Cost: \$275,000 (45% indirect cost)</p>
<p>Dec 2006 – Nov 2011 Co-Investigator Jun Tan (PI) <i>National Institutes of Health (PO1):NIA</i> CD45 Modulation of Microglial Activation and Neuroprotective Property</p>	<p>Total Directs: \$750,000 (45% indirect cost)</p>
<p>Sept 2009 – August 2011 (unscored) Co-Investigator Jun Tan (PI) <i>National Institutes of Health (R-21):NCCAM</i> Oral administration of green tea EGCG inhibits Alzheimer's disease pathogenesis</p>	<p>Total Direct Costs: \$250,000 (45% indirect cost)</p>
<p>July 2008 – July 2009 Co-PI Michael Zaworotko (PI) <i>Byrd Alzheimer Research Institute</i> Pharmaceutical Co-crystals for Alzheimer's disease Therapy</p>	<p>Total Direct Cost: \$78,000 (28% indirect cost)</p>
<p>Oct 2008 – Sept 2009 (unscored) Co-Investigator Jun Tan (PI) <i>National Institutes of Health (SBIR) with Natura</i> Oral EGCG as a Therapy for Alzheimer's disease</p>	<p>Total Direct Cost: \$150,000 (47% indirect cost)</p>

<p>May 2008 – April 2010 Co-Investigator Jun Tan (PI) <i>Nichols Foundation</i> Unrestricted funds for Pilot studies on Hydrogen gas as antioxidant</p>	<p>Total Direct Cost: \$27,000 (N/A indirect cost)</p>
<p>May 2009 – April 2010 Co-Investigator Jun Tan (PI) <i>National Institutes of Health (SBIR) with Natura</i> DiosMem as a Therapy for Alzheimer's disease</p>	<p>Total Direct Cost: \$150,000 (47% indirect cost)</p>
<p>September 2009 – September 2011 (unscored) Principal Investigator Jun Tan (Co-I) <i>National Institutes of Health (RC1)</i> Hydrogen Gas Biomarker for Measuring Antioxidant Activity</p>	<p>Total Direct Cost: \$546,368 (47% indirect cost)</p>
<p>September 2009 – September 2011 (unscored) Co-Principal Investigator Jun Tan (Co-PI) <i>National Institutes of Health (RC1)</i> Promotion of APP alpha-secretase, a new therapeutic approach for Alzheimer's disease</p>	<p>Total Direct Cost: \$600,000 (47% indirect cost)</p>
<p>July 2010 – June 2012 Co-Investigator Jun Tan (PI) <i>National Institutes of Health (R21)</i> IL-6-mediated Jak2/Stat3 signaling and brain development</p>	<p>Total Direct Cost: \$275,000 (47% indirect cost)</p>
<p>September 2009 – September 2011 Co-Investigator Tanya Murphy (PI) <i>Centers for Disease Control (CDC)</i> Quality of life, Comorbidities, Medication and Health service Utilization across the Lifespan in Individuals with Tic Disorders</p>	<p>Total Direct Cost: \$200,000 (47% indirect cost)</p>
<p>May 2010 – April 2011 (unscored) Co-Investigator Jun Tan/Cindy Sanberg (PIs) <i>National Institutes of Health (SBIR) with Natura</i> TeaMEM-O3™ modulation of Alzheimer's-like pathology and behavioral changes</p>	<p>Total Direct Cost: \$2,500,000 (47% indirect cost)</p>
<p>08/01/2009 - 07/31/2014 Co-Investigator Jun Tan (PI) <i>National Institutes of Health (R01)</i> Implication of HUCBC: a novel therapeutic strategy for Alzheimer's disease</p>	<p>Total Direct Cost: \$1,500,000 (49% indirect cost)</p>

April 2013 – March 2014	(unfunded)	Total Direct Cost: \$300,000 (25% indirect cost)
Principal Investigator		
Mike Zaworotko (CoPI)		
<i>Alkermes Pharmaceuticals</i>		
Lithium Cocrystals with improved Therapeutic Profiles		
April 2013 – March 2015	(unscored)	Total Direct Cost: \$2,000,000 (49% indirect cost)
Co-Investigator		
Jun Tan/Cindy Sanberg (PIs)		
<i>National Institutes of Health (SBIR phase II) with Natura</i>		
Luteolin modulation of Alzheimer's-like pathology and behavioral changes		
April 2013 – March 2015	(unscored)	Total Direct Cost: \$275,000 (49% indirect cost)
Principal Investigator		
Jun Tan (Co-I)		
<i>National Institutes of Health (R21)</i>		
Assessment of Novel Lithium cocrystal for Fragile X syndrome		
April 2013 – March 2016	(declined for full review)	Total Direct Cost: \$3,000,000 (49% indirect cost)
Principal Investigator		
Mike Zaworotko (CoPI)		
<i>US Army (white paper)</i>		
Lithium Cocrystals with improved Therapeutic Profiles		
April 2014 – March 2016		Total Direct Cost: \$70,000 (35% indirect cost)
Principal Investigator		
Cyanotech Corporation		
Bioavailability Testing of Astaxanthin Formulations in Human subjects		
April 2010 – August 2016		Total Direct Cost: \$700,000 (49% indirect cost)
Principal Investigator		
USF Research Foundation (Targacept/AstraZeneca License)		
CNS Drug and Nutraceutical Discovery Program		
2015-2017		Total Direct Cost: \$224,250 (49% indirect cost)
Co-Investigator		
Jun Tan (PI)		
1R21 AG049477 01A1		
A Flavonoid Gamma-Secretase Modulator (GSM) Reduces β -amyloid and Tau Pathologies in the AD mice		
2015-2017		Total Direct Cost: \$326,283 (49% indirect cost)
Co-Investigator		
Jun Tan (PI)		
5R01 AT007411 02		
Flavonoid-Diosmin Modulation of A β and Tau Pathologies through GSK-3 β signaling (NCCIH)		
5/15/2016 – 5/30/2020		Total Direct Cost: \$1,868,750 (49% indirect cost)
Co-Investigator		
Jun Tan (PI)		
1R01AG050253-01		
<i>National Institutes of Health (R01)</i>		
LISPRO, an ionic cocrystal of lithium, as a potential novel treatment for Alzheimer's disease		

Principal Investigator (unfunded)
James and Esther King Biomedical Research Program \$879,750 3/01/2020 – 06/30/2022
Novel Lithium Formulation with Improved Therapeutic Profile for Neuroprotection in Cancer Patients receiving Whole Brain Radiotherapy

Principal Investigator (score of 53)
R21 07/01/2019 – 06/30/2021
Does Early Exposure to Acetaminophen increase the risk of Neurodevelopmental disorders?
In this proposal, we are investigating the neurodevelopmental toxicity of acetaminophen in neonatal BTBR and wild type C57/B6 mice. (scored 52 on 1st review)

Co-Investigator (unfunded)
R01 Sawmiller (PI) 05/15/2019 – 04/30/2023
LISPRO as a potential novel treatment for Down syndrome-related Alzheimer's disease
In this proposal we are evaluating LISPRO's therapeutic effect in transgenic Downs mice.

Co-Investigator Brian Guinta (PI) (unfunded) 2/1/19- 1/31/22
Veterans Administration Total Direct Cost: \$950,000 (49% indirect cost)
Therapeutic effect of Nano-lipidic for TBI accelerated Alzheimer's like pathology

Principal Investigator Active
Alzamend Neuro Inc. \$300,000 (50% I-4 corridor) 03/01/2019 – 02/28/2021
Novel Lithium Formulation with Improved Therapeutic Profile (49% indirect cost)
Research funding from licensee, we are investigating the neuroprotective properties of LISPRO a novel formulation of lithium.

Principal Investigator Active
Alzamend Neuro Inc. \$300,000 (50% I-4 corridor) 07/01/2021 – 06/30/2022
Brain and Plasma Levels of LiProSal following oral administration (49% indirect cost)
Research funding from licensee, we are investigating the brain pK properties of LIPROSAL a novel formulation of lithium.

Co-Investigator (received a fundable score)
R01 Sawmiller (PI) 07/01/2022 – 6/30/2025
Novel lithium-based therapeutics for Alzheimer's disease: LISPRO and lithium cholesterol sulfate

Principal Investigator
R21 (pending) 09/01/2021 – 8/30/2022
Novel Lithium Formulation for Bipolar Disorder
National Institutes of Health (R21)
LiProSal, an ionic cocrystal of lithium, as a potential novel treatment for Bipolar Disorder

SERVICE
Peer Reviewer

Neuropsychopharmacology	Biological Psychiatry	Clinical Therapeutics
Pharmacology, Biochemistry & Behavior	Experimental Neurology	Journal of Neuroscience
General Pharmacology	CNS Drugs	Methods
Molecular Pharmacology	Clinical Therapeutics	Journal of Neurochemistry
Progress in Biological Psychiatry and Neuropsychopharmacology	Psychopharmacology	Neurotoxicology & Teratology
Neuropsychiatric Disease and Treatment	Psychological Medicine	Journal of Alternative and Complementary Medicine
Frontiers in Neuroscience	Journal of Alternative and Complementary Medicine	
Neurobiology of Aging	Nicotine and Tobacco Research	

University Committees

2004-2010 USF IACUC Committee

USF College of Medicine Committees

2018- Graduate Coordinator's meeting (monthly)

2000 -2002 Research Committee

2000 -2002 Space Committee (representing Neurosurgery)

2000 (spring) Neuroscience Course Curriculum committee

2002 -2004 Bylaws Committee

2002 -2006 Assoc. Dean's Ad Hoc Res. Review Committee

2005 Translational Research Committee
(Wrote business plan for Return on Investment Pilot Research Program)

2004 -2006 Space Committee (representing Psychiatry)

2007 LCME Junior Faculty Committee for Re-accreditation process

2007 Internal Search Committee for Associate Dean of Research

Departmental Committees

1997-2012 Basic and Clinical Research Review Committee
USF Department of Psychiatry and Behavioral Medicine

2002-2012 USF Neurosurgery Resident Interview Committee

2003-2005 Search Committee: Director of Child and Adolescent Psychiatry,
USF Department of Psychiatry and Behavioral Medicine

Grant Review Committees

1999 NIH Brain Disorders & Clinical Neuroscience Review Committee

2003 NIDA Review Committee (CEBRA)

2002-2006 Research Management Group, Inc

2009 NIH Challenge Grant Review Committee

2012- Present Alzheimer's Association International Research Grant Program

Foundation Committees

2001-2002 Medical Advisory Board for the Florida Chapter of the
Tourette's Syndrome Association

Professional Societies:

Society for Neuroscience

American Academy of Child and Adolescent Psychiatry

Alzheimer's Association

Tourette's Syndrome Association

MAPS: Multidisciplinary Association for Psychedelic Studies

American Society for Neural Transplantation

NCDEU: New Clinical Drug Evaluation Unit (NIMH)

American Botanical Council

Society for Biological Psychiatry

Co-Chair, Workshop on Nicotinic Receptors and Neuropsychiatry (2001)

International Behavioral Neuroscience Society

Chair, Local Organizing Committee for the 2003 Annual Meeting

International Union of Pharmacology

Member, 2004 Subcommittee on Nomenclature for Nicotinic Acetylcholine Receptors

TEACHING

Became MS course director for **Aging and Neuroscience Program** in MAY 2018 till present

Medical & Graduate Student Courses

1995-2000	PSYCH	Directed Study in Psychology Research
2001	BMS 6020	Medical Neuroscience (discussion)
Spring 2003	BMS 6020	Medical Neuroscience
Fall 2003	Workforce Florida Program	Clinical Trial Coordinator Didactics Course
Fall 2003	Workforce Florida Program	Psychopharmacology
Fall 2003	BMS 7460	Clinical Pharmacology
2004 - Present	GMS-7930-12	Seminar in Aging and Neuroscience
Summer 2004	Medical Student Research	Mini-KID Study (Med. Students: Saba Khan, Tariq Halim, Ruan Ramjit)
2004 - 2016	Senior Critical Care Clerkship (under Frank Fernandez, M.D.)	Psychiatry: Basic Science of Delirium
2005-2006	BMS8334	Evidence Based Medicine
2006	BMS6840	Behavioral Medicine
2011-2012	GMS 7930	Neuroimmunology
2011 - 2016	GMS 6843	Scientific Communication
2004 - Present	GMS-7930 (course director since 2018)	Aging and Neuroscience
2018 - Present	GMS 6604 (2 lectures)	Spinal Cord Repair
2018 - Present	GMS 6773 (2 lectures)	Stem Cells in Brain Repair
2018 - Present	GMS 7939	Neuroscience Seminar
2004 – Present	GMS 7910 (course director since 2018)	Directed Res in Aging and Neuro

Continuing Medical Education

Fall 2004	Keys to Neuropsychiatric Care (Sept., 2004)	New Research Findings in Tourette's Disorder
Fall 2004	Educational Program on ADHD (Dec., 2004)	Current Scientific Research

Thesis Committees:

1995	Elham Rafla-Juan, M.A.	(M.A. Thesis Committee; Psychology, USF)
1998-2001	Mary Newman, Ph.D.	(Honors Thesis Committee; M.A. Thesis Committee; Experimental Psychology, USF)
1998-2002	Berney Wilkinson, M.A.	(M.A. Thesis Committee; School Psychology, USF)
2000	Debra Howells, Ph.D.	(Ph.D. Thesis Committee; Clinical Psychology, Monash University, Australia)
2001-2002	Tariq Halim	(Honors Thesis Committee; Experimental Psychology, USF)
2001-2002	Alba Rodriguez, Ph.D.	(Ph.D. Thesis Committee; Experimental Psychology, USF)
2003 - 2004	Therese Yuen	(Ph.D. Thesis Committee; Clinical Psychology, Monash University, Australia)
2004 - 2008	Raquel Carvallo	(Ph.D. Thesis Committee; Chemical Engineering Department, USF)
2006 – 2008	Kavon Rezai-zadeh	(Ph.D., Molecular Medicine, Psychiatry Dept., USF)
2006 – 2010	Jared Ehrhart	(Ph.D., Mol. Pharm. & Physiology /Psychiatry Dept., USF)
2007 – 2012	Ellisa Parker-Athill	(Ph.D., Mol. Pharm. & Physiology, CEABR, USF)
2006 – 2008	Sheshaka Kesani	(M.S., USF Dept. of Chemistry, USF)
2008 – 2012	Adam Smith	Ph.D., Mol. Pharm. & Physiology, CEABR
2007 - 2012 Physiology/Psychiatry	Antoinette Bailey	Ph.D., Mol. Pharm. &
2010 – 2012	Lisa Lee	M.S., Mol. Pharm. & Physiology/Psychiatry
2010 – 2012	Tien	Ph.D., USF Chemistry
2011 – 2017	Seol Hee	Ph.D., USF Neuroscience, CEABR
2011 – 2016	Jessie Alwerdt	Ph.D., USF College of Public Health
2011 – 2017	Jamileh Ahmed	Ph.D., USF Neuroscience, Byrd
2018	Ahsan Habib	Ph.D., USF Neuroscience

Aging and Neuroscience Graduate students mentored:

Matthew Hilgart
Kevin Wortman
Kayla Butler
Andrew Weesner
Tavia Rahki Smith
Damas, Tanika

Hailu, Surafuale
Hollon, Cathleen
Jeliazkov, Dario
Kumar, Krupa
Mcgill Percy, Kyle
Mesidor, Phillippe
Pniewski, Ashley
Rios Rodriguez, Misleydi
Rizzi, Nicholas
Siddiqi, Abdurahman
Sniffen, Sarah
Gizem Keles
Rebecca Sauchuk
Ronald Bronson
Jessica Killingsworth

INVITED TALKS

1. (1994) SCH23390 and Mecamylamine Prevent the Development of the Sensitized Locomotor Response to Nicotine. Graduate Seminar, Department of Pharmacology, Bowman Gray School of Medicine, Wake Forest, N.C.
2. (1995) Nicotine Therapeutics for Neuropsychiatric Disorders. Presented at the USF Department of Biology Seminars in Neuroscience.
3. (1995) Nicotine and Tourette's Syndrome. Presented at the First Annual Duke Nicotine Research Conference, Duke University
4. (1996) Evidence of the Neuroprotective Actions of Nicotine. Presented at the International Behavioral Neuroscience Society Conference, Cancun, Mexico
5. (1996) Nicotine and Tourette's Syndrome. GRAND ROUNDS, USF Department of Psychiatry and Behavioral Medicine.
6. (1999) Mecamylamine for Neuropsychiatric Disorders. Board of Directors, Layton BioScience, Inc.
7. (1999) Mecamylamine for Neuropsychiatric Disorders. Preclinical and Clinical Divisions, Cephalon Pharmaceutical Company, Inc.
8. (1999) Nicotinic Antagonists for Neuropsychiatric Disorders. Preclinical and Clinical Divisions, Forest Labs, Inc.
9. (1999) Nicotinic Antagonists for Neuropsychiatric Disorders. Graduate Seminar, USF Department of Pharmacology.
10. (2000) Nicotinic Medications and Tourette's Syndrome. Tourette's Syndrome Association (Florida State Chapter).
11. (2000) Mecamylamine and Tourette's Disorder. Departments of Pharmacology and Psychiatry, University of Florida, Gainesville, FL

12. (2000) Update: Nicotinic Medications and Tourette's Syndrome. Tourette's Syndrome Association (Pinellas County Chapter, Florida).
13. (2001) Potential Mood Stabilizing Properties of Mecamylamine in Children and Adolescents. Workshop on Nicotinic Receptors and Neuropsychiatry (Co-Chair), Society of Biological Psychiatry Conference in New Orleans.
14. (2001) Mecamylamine and its Stereoisomers for Neuropsychiatric Disorders. Preclinical and Clinical Divisions, Targacept, Inc.
15. (2003) Antidepressants as Targets for Nicotinic Receptors. Yale University; Department of Psychiatry and Neuroscience Program
16. (2004) The MINI-KID: Mini International Neuropsychiatric Interview for Children & Adolescents. Phoenix, AR: Investigator Meeting: Xanax Adolescent Panic Disorder Study, Pfizer, Inc.
17. (2004) The MINI-KID: Mini International Neuropsychiatric Interview for Children & Adolescents. New York: Investigator Meeting: Xanax Adolescent Panic Disorder Study, Pfizer, Inc.
18. (2004) New research Findings in Tourette's Disorder: CME course: Keys to Neuropsychiatric Care Sept. 2004; Tampa Renaissance Hotel at International Mall.
19. (2005) Omega 3 Fatty Acids and Mood Disorders: Presentation to the Tampa Bay Manic Depressive Society Sept 2005. St Joseph's Children's Hospital, Tampa, FL
20. (2006) SSRI's and Teen Suicide: Brain Awareness Week. USF Dept of Psychiatry (March 2006).
21. (2007) Nicotine/Cannabinoid Therapy for Alzheimer's disease. NIH: Alzheimer's Disease Translational Research Investigators Meeting, Bethesda, MA.
22. (2007) Are Neuropsychiatric Symptoms Associated with Varenicline? GRAND ROUNDS, USF Department of Psychiatry and Behavioral Medicine.

US Patents:

PAT. NO.	Title
<u>10,870,665</u>	<u>Organic anion lithium ionic cocrystal compounds and compositions</u>
<u>10,828,312</u>	<u>Lithium cholesterol compositions, including, but not limited to lithium cholesterol sulfate compositions, and methods of treatment for Alzheimer's disease and neurological disorders</u>
<u>10,130,708</u>	<u>Lithium cocrystal compositions</u>
<u>10,098,909</u>	<u>Ionic cocrystal of lithium, lispro, for the treatment of fragile X syndrome</u>
<u>9,827,285</u>	<u>Compositions and methods of improving cognitive performance</u>
<u>9,744,189</u>	<u>Compositions of lithium salts and methods of use</u>
<u>9,662,351</u>	<u>Plasma and brain pharmacokinetics of previously unexplored lithium salts</u>
<u>9,603,869</u>	<u>Lithium co-crystals and an additional neuropsychiatric agent for treatment of neuropsychiatric disorders</u>
<u>9,593,070</u>	<u>Exo-S-mecamylamine formulation and use in treatment</u>
<u>9,180,191</u>	<u>Treatment of suicidal ideation or behavior using inhibitors of nicotinic acetylcholine receptors</u>
<u>8,906,414</u>	<u>Methods and compositions for improving bioavailability of epigallocatechin gallate (EGCG)</u>
<u>8,802,638</u>	<u>Flavonoid treatment of glycogen synthase kinase-based disease</u>
<u>8,778,986</u>	<u>Treatment of glycogen synthase kinase-based disease</u>
<u>8,778,894</u>	<u>Luteolin and diosmin/diosmetin as novel STAT3 inhibitors for treating autism</u>
<u>8,574,640</u>	<u>Combined effects of nutrients on proliferation of stem cells</u>
<u>8,026,283</u>	<u>Exo-S-mecamylamine formulation and use in treatment</u>
<u>7,442,394</u>	<u>Combined effects of nutrients on proliferation of stem cells</u>
<u>7,101,916</u>	<u>Exo-S-mecamylamine formulation and use in treatment</u>
<u>6,979,698</u>	<u>Method of treating cognitive deficits in learning and memory</u>
<u>6,734,215</u>	<u>Exo-S-mecamylamine formulation and use in treatment</u>
<u>6,034,079</u>	<u>Nicotine antagonists for nicotine-responsive neuropsychiatric disorders</u>

USF Provisional Patents:

APP. NO.	Title
<u>20170181983</u>	<u>EXO-S-MECAMYLAMINE FORMULATION AND USE IN TREATMENT</u>
<u>20160339055</u>	<u>LITHIUM CO-CRYSTALS FOR TREATMENT OF NEUROPSYCHIATRIC DISORDERS</u>
<u>20160052941</u>	<u>ORGANIC ANION LITHIUM IONIC COCRYSTAL COMPOUNDS AND COMPOSITIONS</u>
<u>20150258137</u>	<u>PLASMA AND BRAIN PHARMACOKINETICS OF PREVIOUSLY UNEXPLORED LITHIUM SALTS</u>
<u>20150250797</u>	<u>NUTRACEUTICAL CO-CRYSTAL COMPOSITIONS</u>
<u>20150157597</u>	<u>NEURODEGENERATIVE DISEASE TREATMENT USING JAK/STAT INHIBITION</u>

[20140242193](#) [LITHIUM COMPOSITIONS](#)

[20140194525](#) [EXO-S-MECAMYLAMINE FORMULATION AND USE IN TREATMENT](#)

[20130261045](#) [GREEN TEA POLYPHENOL ALPHA SECRETASE ENHANCERS AND METHODS OF USE](#)

[20120269906](#) [TREATMENT OF SUICIDAL IDEATION OR BEHAVIOR USING INHIBITORS OF NICOTINIC ACETYLCHOLINE RECEPTORS](#)

[20110038963](#) [COMBINED EFFECTS OF NUTRIENTS ON PROLIFERATION OF STEM CELLS](#)

[20110028565](#) [EXO-S-MECAMYLAMINE FORMULATION AND USE IN TREATMENT](#)

[20100286282](#) [EXO-S-MECAMYLAMINE FORMULATION AND USE IN TREATMENT](#)

[20100267733](#) [Synergistic Modulation of Microglial Activation by Nicotine and THC](#)

[20100204204](#) [NUTRACEUTICAL CO-CRYSTAL COMPOSITIONS](#)

[20100069479](#) [NEURODEGENERATIVE DISEASE TREATMENT USING JAK/STAT INHIBITION](#)

[20100040558](#) [GREEN TEA POLYPHENOL ALPHA SECRETASE ENHANCERS AND METHODS OF USE](#)

[20090280198](#) [Combined effects of nutrients on proliferation of stem cells](#)

[20080089905](#) [COMPOUNDS FOR STIMULATING STEM CELL PROLIFERATION INCLUDING AFA-OMEGA \(EtOH\)](#)

[20080085330](#) [COMPOUNDS FOR STIMULATING STEM CELL PROLIFERATION INCLUDING SPIRULINA](#)

[20080033038](#) [Compositions of polyphenols and methods of use](#)

[20060276551](#) [Exo-S-Mecamylamine Formulation and Use in Treatment](#)

[20060275512](#) [Combined effects of nutrients on proliferation of stem cells](#)

[20060223790](#) [Modulation of Microglial by Nicotinic Medications](#)

[20060142180](#) [Cholinergic modulation of microglial activation via alpha-7 nicotinic receptors](#)

[20040044083](#) [Exo-S-mecamylamine formulation and use in treatment](#)

[20020016371](#) [Exo-S-mecamylamine formulation and use in treatment](#)

[20020016370](#) [Exo-R-mecamylamine formulation and use in treatment](#)

Research ID Profile: <http://www.researcherid.com/rid/J-4249-2012>
Google Scholar: <http://scholar.google.com/citations?user=SNjumY4AAAAJ&hl=en>

Current h-index: 44

Peer Reviewed Publications:

1. Borlongan CV, Martinez R, **Shytle RD**, Cahill DW, Sanberg PR (1995). Striatal Dopamine-Mediated Motor Behavior is altered Following Occlusion of the Middle Cerebral Artery. Pharmacology, Biochemistry and Behavior. 52(1):225-229.
2. **Shytle RD**, Borlongan CV, Sanberg PR (1995). Nicotine Blocks Kainic Acid Induced Wet Dog Shakes in Rats. Neuropsychopharmacology. 13(3):261-264.
3. Borlongan CV, **Shytle RD**, Shajmil DR, Shimizu S, Freeman TB, Cahill DW, Sanberg PR (1995). (-)-Nicotine Protects against Systemic Kainic Acid-Induced Excitotoxic Effects. Experimental Neurology. 136: 261-265.
4. **Shytle RD**, Silver AA, Philipp MK, McConville BJ, Sanberg PR (1996). Transdermal Nicotine for Tourette's Syndrome. Drug Development Research 38(3/4): 290-298.
5. Sanberg PR, Silver AA, **Shytle RD**, Philipp MK, Cahill DW, Fogelson HM, McConville BJ (1997). Nicotine for the Treatment of Tourette's Syndrome. Pharmacology and Therapeutics 74(1): 21-25.
6. **Shytle RD**, Borlongan CV, Cahill DW, Sanberg PR. (1996). Evidence for the Neuroprotective Actions of Nicotine in an In Vivo Model of Excitotoxicity. Medical Chemistry Research. 6/7-8:555-561.
7. **Shytle RD**, Silver AA, and Sanberg PR (1996). Nicotine, Tobacco, and Addiction. Nature. 384(6604):18-19.
8. Polgar S, McGartland M, Borlongan CV, **Shytle RD**, Sanberg PR (1996). Smoking Cessation Programs are Neglecting the Needs of Persons with Neuropsychiatric Disorders. Australian and New Zealand Journal of Medicine. 26: 572-573.
9. Silver AA, **Shytle RD**, Philipp MK, Sanberg PR (1996). Long-Term Potentiation of Neuroleptics with Transdermal Nicotine in Tourette's Syndrome. Journal of the American Academy of Child & Adolescent Psychiatry 35(12):1631-1636.
10. Sanberg PR, Silver AA, & **Shytle RD** (1998) Treatment of Tourette's Syndrome with Mecamylamine. Lancet 352:705-706.
11. Goldman J, **Shytle RD**, & Sanberg PR (1999) Adding Behavioral Therapy to Medication for Smoking Cessation. JAMA 281:1984.
12. Newman MN, **Shytle RD**, & Sanberg PR (1999) Locomotor Behavioral Effects of Prenatal and Postnatal Nicotine Exposure in Rat Offspring. Behavioral Pharmacology 10:699-706.
13. Silver AA, **Shytle RD**, & Sanberg PR (1999) Clinical Experience with Transdermal Nicotine Patch in Tourette's Syndrome. CNS Spectrums 4:68-76.
14. **Shytle RD**, Silver A, & Sanberg PR (2000) Comorbid Bipolar Disorder in Tourette Syndrome Responds to Nicotinic Receptor Antagonist, Mecamylamine (Inversine®). Biological Psychiatry 48:1028-1031.

15. Silver AA, **Shytle RD**, & Sanberg PR (2000) Mecamylamine in Tourette's Syndrome: A two year retrospective case study. Journal of Child and Adolescent Psychopharmacology 10:59-68.
16. Newman MB, Nazian S, & Sanberg PR, Diamond D, & **Shytle RD** (2000) Corticosterone-Attenuating and Anxiolytic Properties of Mecamylamine in the Rat. Progress in Neuro-Psychopharmacology & Biological Psychiatry 25(3): 609-620.
17. Silver AA, Penny E, **Shytle RD**, Sanberg PR & George TP (2000) Clinical Relevance of the Nicotine Receptor Antagonist Mecamylamine in Treating Neuropsychiatric Disorders. Today's Therapeutic Trends 18-3 255-273.
18. Papke R, Sanberg PR, & **Shytle RD** (2000) Analysis on Mecamylamine Stereoisomers on Human Nicotinic Receptor Subtypes. Journal of Experimental Pharmacology and Therapeutics 297(2): 646-656.
19. Young J, **Shytle RD**, Sanberg PR, George T (2001) Mecamylamine (Inversine®): New Therapeutic Uses and Toxicity/Risk Profile Clinical Therapeutics 23(4): 532-565.
20. Silver AA, **Shytle RD**, Sheehan D, Sheehan K, Ramos A, & Sanberg PR (2001) Multi-Center Double Blind Placebo Controlled Study of Mecamylamine Monotherapy for Tourette Disorder. Journal of the American Academy of Child and Adolescent Psychiatry 40(9): 1101-1110.
21. Silver AA, **Shytle RD**, Wilkinson B, Katherine-Philipp M, McConville B, Fogelson H, & Sanberg PR (2001) Transdermal Nicotine and Haloperidol in Tourette's Syndrome: A double-blind placebo-controlled study. Journal of Clinical Psychiatry 62(9): 707-714.
22. Sanberg PR, Newman MB, Alvarez F, Potts SE, Manresa J, **Shytle RD** (2001) Mecamylamine Prolongs the Duration of Haloperidol-Induced Catalepsy In Rats. International Journal of Neuroscience 109(1-2):145-149.
23. Newman MB, Manresa JJ, Potts SE, Alvarez F, Sanberg PR & **Shytle RD** (2001) Nicotine Induced Seizures Blocked By (\pm)-Mecamylamine And Its Stereoisomers. Life Science 69:2583-2591.
24. **Shytle RD**, Silver AA, Sanberg, PR (2001) Mecamylamine for Smoking Cessation. Internal Medicine News. 34(19):5.
25. Wilkinson BJ, Newman MB, **Shytle RD**, Silver AA, Sheehan DV, & Sanberg PR (2001) Family Impact of Tourette's syndrome. Journal of Child and Family Studies 10(4):477-483.
26. Newman MB, Manresa JJ, Sanberg PR & **Shytle RD** (2001) Effects of Low Doses of Mecamylamine in Two Animal Models of Anxiety. Experimental and Clinical Psychopharmacology 10(1):18-25.
27. **Shytle RD**, Silver AA, Lukas RJ, Newman MB, Sheehan DV, and Sanberg PR (2002) Nicotinic Acetylcholine Receptors as Targets for Antidepressants, Molecular Psychiatry 7:525-535.
28. **Shytle RD**, Silver AA, Wilkinson BJ, Sanberg, PR (2002) A Pilot Controlled Trial of Transdermal Nicotine in the Treatment of Attention Deficit Hyperactivity Disorder. World Journal of Biological Psychiatry 3:150-155.

29. **Shytle RD**, Penny E, Goldman J, Sanberg P (2002) Mecamylamine (Inversine®): An Old Antihypertensive Medication with New Research Directions? Journal of Human Hypertension 16:453-457.
30. **Shytle RD**, Silver AA, Sheehan KH, Sheehan DV, and Sanberg PR (2002) Neuronal Nicotinic Receptor Inhibition for Treating Mood Disorders: Preliminary Controlled Evidence with Mecamylamine, Depression and Anxiety 2002;16(3):89-92
31. Newman MB, Kuo Y-P, Lukas RJ, **Shytle RD**, Sanberg PR, McGrogan MP, and Zigova T. (2002) Nicotinic Acetylcholine Receptors On Nt2 Precursor Cells And Hnt (Nt2-N) Neurons Brain Res Dev Brain Res. 139(1):73-86
32. Newman MB, **Shytle RD**, Sanberg PR (2002) Nicotine: pro-oxidant or antioxidant: role in brain and behavior. Life Science. 71(24):2807-20
33. **Shytle RD**, Silver AA, Sheehan KH, Sheehan DV, Ramos A, Sanberg PR (2002) Measuring Illness Severity in Tourette's Disorder. Journal of Child and Adolescent Psychopharmacology 12 (4): 293-294
34. **Shytle RD**, Silver AA, Sanberg (2002) Nicotine Induced Angiogenesis. Journal of Clinical Psychiatry. 63(10):949-950.
35. **Shytle RD**, Sheehan DV, Newman MB, Wilkinson BJ, Sheehan, KH, Sanberg PR, Silver AA (2003) The Tourette's Disorder Scale (TODS): Development, Reliability, and Validity. Assessment. 10(3):273-287.
36. Ramos A **Shytle RD**, Silver AA, & Sanberg PR (2003) Ziprasidone Induced Oculogyric Crisis. Journal of the American Academy of Child and Adolescent Psychiatry 42(9):1013-4
37. **Shytle RD**, Mori T, Ehrart J, Zeng J, Shen N, Silver AA, Sanberg PR, and Tan J (2004) Cholinergic Modulation of Microglial Activation Via $\alpha 7$ Nicotinic Receptors. Journal of Neurochemistry. 89:337-343
38. Giunta B, Francisco F, Townsend K Sun N, Zeng J, Sanberg PR, **Shytle RD**, and Tan J (2004) Galantamine and nicotine have a synergistic effect on inhibition of microglial activation induced by HIV-1 gp120. Brain Research Bulletin 64(2):165-70.
39. Townsend K, **Shytle RD**, Giunta B, Francisco F, Sun N, Zeng J, Sanberg PR and Tan J (2004) Lovastatin Modulation of Microglial Activation via Suppression of CD40 and its Signaling Pathway. J Neuroscience Research. 78(2):167-176.
40. Wilkinson B and **Shytle RD** (2004) Book Review: Pediatric Psychopharmacology: Combining Medical and Psychosocial Interventions (by L. Phelps, R.T. Brown, & T.J. Power) Journal of Child, Family, and Community. Vol 15(2) 2004, 225-229.
41. Rezai-Zadeh K, **Shytle RD**, Sun N, Mori T, Hou H, Jeanniton D, Ehrhart J, Townsend K, Zeng J, Morgan D, Hardy J, Town T, Tan J. (2005) Green tea epigallocatechin-3-gallate (EGCG) modulates amyloid precursor protein cleavage and reduces cerebral amyloidosis in Alzheimer transgenic mice. Journal of Neuroscience 25(38):8807-14.
42. Townsend KP, Town T, Mori T, Lue LF, **Shytle RD**, Sanberg PR, Morgan D, Fernandez F, Flavell RA, Tan J. (2005) CD40 signaling regulates innate and adaptive activation of microglia in response to amyloid beta-peptide. Eur J Immunol. 35(3):901-10.

43. Ehrhart J, Obregon D, Mori T, Hou H, Sun N, Bai Y, Klein T, Fernandez F, Tan J, **Shytle RD**. (2005). Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation. *J Neuroinflammation*. 12;2(1):29.
44. Bickford, PC, Tan J, **Shytle RD**, Sanberg CD, El-Badri N, and Sanberg PR. (2006) Nutraceuticals Promote Proliferation of Human Stem Cells. *Stem Cells and Development*. 115: 118-123.
45. Obregon DF, Rezai-Zadeh K, Bai Y, Sun N, Hou H, Ehrhart J, Zeng J, Mori T, Arendash GW, **Shytle RD**, Town T, Tan J. (2006) ADAM10 activation is required for green tea (-)-epigallocatechin-3-gallate-induced alpha-secretase cleavage of amyloid precursor protein. *J Biol Chem*. 281(24):16419-27.
46. Giunta B, Obregon D, Hou H, Zeng J, Sun N, Nikolic V, Ehrhart J, **Shytle RD**, Fernandez F, Tan J. (2006) EGCG mitigates neurotoxicity mediated by HIV-1 proteins gp120 and Tat in the presence of IFN-gamma: role of JAK/STAT1 signaling and implications for HIV-associated dementia. *Brain Res*; 1123(1):216-25.
47. **Shytle RD**, Ehrhart J, Tan J, Vila J, Cole M, Sanberg CD, Sanberg PR, Bickford PC. (2007) Oxidative Stress of Neural, Hematopoietic, and Stem Cells: Protection by Natural Compounds. *Rejuvenation Res*. 10(2):173-8.
48. Nikolic WV, Bai Y, Obregon D, Hou H, Mori T, Zeng J, Ehrhart J, **Shytle RD**, Giunta B, Morgan D, Town T, Tan J. (2007) Transcutaneous beta-amyloid immunization reduces cerebral beta-amyloid deposits without T cell infiltration and microhemorrhage. *Proc Natl Acad Sci U S A*.; 104(7):2507-12.
49. **Shytle RD** and Wilkinson B (2007) Obsessive Compulsive Spectrum Disorders. In: A comprehensive Handbook of Child and Adolescent Obsessive-Compulsive Disorders (Eds E Storch, Geffken, T Murphy).
50. Rezai-Zadeh K, Arendash GW, Hou H, Fernandez F, Jensen M, Runfeldt M, **Shytle RD**, Tan J. (2008) Green tea epigallocatechin-3-gallate (EGCG) reduces beta-amyloid mediated cognitive impairment and modulates tau pathology in Alzheimer transgenic mice. *Brain Res*. 1214:177-87.
53. Rezai-Zadeh K, **Shytle RD**, Bai Y, Tian J, Hou H, Mori T, Zeng J, Obregon D, Town T, Tan J. (2008) Flavonoid-mediated presenilin-1 phosphorylation reduces Alzheimer's disease beta-amyloid production. *J Cell Mol Med*.
54. George TP, Sacco KA, Vessicchio JC, Dudas MM, Allen TM, Jatlow PI, **Shytle RD**. (2008) Nicotinic Antagonist Augmentation of SSRI-Refractory Major Depression: A Preliminary Study. *J Clin Psychopharmacol*. 28(3):340-4
55. AF Schneider, EA Storch, GR Geffken, CW Lack, and **Shytle RD** (2007) Psychometric properties of the Hoarding Assessment Scale in college populations. *Illness, Crisis, and Loss* 16(3): 227-236.
56. Kavon Rezai-Zadeh, Jared Ehrhart, Yun Bai, Paul R Sanberg, Paula Bickford, Jun Tan, **Shytle RD** (2008) Apigenin and luteolin modulate microglial activation via inhibition of STAT1-induced CD40 expression *Journal of Neuroinflammation* 5:41.
57. Rezai-Zadeh K, **Shytle RD**, Bai Y, Tian J, Hou H, Mori T, Zeng J, Obregon D, Town T, Tan J. (2008) Flavonoid-mediated presenilin-1 phosphorylation reduces Alzheimer's disease beta-amyloid production. *J Cell Mol Med*. 13(3):574-88

58. **Shytle RD**, Bickford PC, Rezai-zadeh K, Hou L, Zeng J, Tan J, Sanberg PR, Sanberg CD, Roschek B Jr, Fink RC, Alberte RS. (2009) Optimized turmeric extracts have potent anti-amyloidogenic effects. *Curr Alzheimer Res.* 6(6):564-71.
59. **Shytle RD** and Bickford PC (2009) Vitamin D and the Brain: More Good News. *Cerebrum* <http://www.dana.org/news/cerebrum/detail.aspx?id=20980>
60. Bacher I, Wu B, **Shytle RD**, George TP. (2009) Mecamylamine - a nicotinic acetylcholine receptor antagonist with potential for the treatment of neuropsychiatric disorders. *Expert Opin Pharmacother.* 10(16):2709-21.
61. Parker-Athill E, Luo D, Bailey A, Giunta B, Tian J, **Shytle RD**, Murphy T, Legradi G, Tan J. (2009) Flavonoids, a prenatal prophylaxis via targeting JAK2/STAT3 signaling to oppose IL-6/MIA associated autism. *J Neuroimmunol.* 217(1-2):20-7.
62. Sheehan DV, Sheehan KH, **Shytle RD**, Janavs J, Bannon Y, Rogers JE, Milo KM, Stock SL, Wilkinson B. (2010) Reliability and validity of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). *J Clin Psychiatry.* 71(3):313-26.
63. Giunta B, Hou H, Zhu Y, Salemi J, Ruscini A, **Shytle RD**, Tan J. (2010) Fish oil enhances anti-amyloidogenic properties of green tea EGCG in Tg2576 mice. *Neurosci Lett.* 471(3):134-8.
64. Smith A, Giunta B, Bickford PC, Fountain M, Tan J, **Shytle RD**. (2010) Nanolipidic particles improve the bioavailability and alpha-secretase inducing ability of epigallocatechin-3-gallate (EGCG) for the treatment of Alzheimer's disease. *Int J Pharm.* 389(1-2):207-12.
65. **Shytle RD**, Tan J, Ehrhart J, Smith AJ, Sanberg CD, Sanberg PR, Anderson J, Bickford PC. (2010) Effects of blue-green algae extracts on the proliferation of human adult stem cells in vitro: a preliminary study. *Med Sci Monit.* 2010 16(1):BR1-5.
66. Bachstetter AD, Jernberg J, Schlunk A, Vila JL, Hudson C, Cole MJ, **Shytle RD**, Tan J, Sanberg PR, Sanberg CD, Borlongan C, Kaneko Y, Tajiri N, Gemma C, Bickford PC. (2010) Spirulina promotes stem cell genesis and protects against LPS induced declines in neural stem cell proliferation. *PLoS One* 5;5(5):e10496.
67. **Shytle RD**, Tan J, Bickford PC, Rezai-Zadeh K, Hou L, Zeng J, Sanberg PR, Sanberg CD, Alberte RS, Fink RC, Roschek B (2012) Optimized Turmeric Extract Reduces β -Amyloid and Phosphorylated Tau Protein Burden in Alzheimer's Transgenic Mice *Curr Alzheimer Res.* 9(4):500-6.
68. Smith, A.J., P. Kavuru, L. Wojtas, M.J. Zaworotko, and **R.D. Shytle**, (2011) Cocrystals of quercetin with improved solubility and oral bioavailability. *Mol Pharm*, 8(5): p. 1867-76;PMID:21846121
69. Storch, E.A., A.S. De Nadai, A.B. Lewin, J.F. McGuire, A.M. Jones, P.J. Mutch, **R.D. Shytle**, and T.K. Murphy, (2011) Defining treatment response in pediatric tic disorders: a signal detection analysis of the Yale Global Tic Severity Scale. *J Child Adolesc Psychopharmacol*, 21(6): p. 621-7. PMID:3279714;PMID:22070181
70. Sanberg, P.R., C. Vindrola-Padros, and **R.D. Shytle**, (2012) Translating laboratory discovery to the clinic: from nicotine and mecamylamine to Tourette's, depression, and beyond. *Physiol Behav*, 107(5): p. 801-8;PMID:22776623
71. **Shytle, R.D.**, J. Tan, P.C. Bickford, K. Rezai-Zadeh, L. Hou, J. Zeng, P.R. Sanberg, C.D. Sanberg, R.S. Alberte, R.C. Fink, and B. Roschek, Jr., (2012) Optimized turmeric extract reduces beta-Amyloid and

phosphorylated Tau protein burden in Alzheimer's transgenic mice. *Curr Alzheimer Res*, 9(4): p. 500-6.PMCID:3474959;PMID:21875408

72. Smith, A.J., P. Kavuru, K.K. Arora, S. Kesani, J. Tan, M.J. Zaworotko, and **R.D. Shytle**, (2013) Crystal engineering of green tea epigallocatechin-3-gallate (EGCg) cocrystals and pharmacokinetic modulation in rats. *Mol Pharm*, 10(8): p. 2948-61.PMCID:3795472;PMID:23730870
73. Bailey, A.R., H. Hou, M. Song, D.F. Obregon, S. Portis, S. Barger, **RD. Shytle**, S. Stock, T. Mori, P.G. Sanberg, T. Murphy, and J. Tan, (2013) GFAP expression and social deficits in transgenic mice overexpressing human sAPPalpha. *Glia*, 61(9): p. 1556-69.PMCID:3729742;PMID:23840007
74. Zhang, S.Q., D. Sawmiller, S. Li, K. Rezai-Zadeh, H. Hou, S. Zhou, **RD. Shytle**, B. Giunta, F. Fernandez, T. Mori, and J. Tan, (2013) Octyl gallate markedly promotes anti-amyloidogenic processing of APP through estrogen receptor-mediated ADAM10 activation. *PLoS One*, 8(8): p. e71913.PMCID:3744472;PMID:23977176
75. Smith, A.J., S.H. Kim, N.K. Duggirala, J. Jin, L. Wojtas, J. Ehrhart, B. Giunta, J. Tan, M.J. Zaworotko, and **R.D. Shytle**, (2013) Improving lithium therapeutics by crystal engineering of novel ionic cocrystals. *Mol Pharm*, 10(12): p. 4728-38.PMCID:3850245;PMID:24191685
76. Small, B.J., K.S. Rawson, C. Martin, S.L. Eisel, C.D. Sanberg, C.L. McEvoy, P.R. Sanberg, **R.D. Shytle**, J. Tan, and P.C. Bickford, (2014) Nutraceutical intervention improves older adults' cognitive functioning. *Rejuvenation Res*, 17(1): p. 27-32.PMCID:4047846;PMID:24134194
77. Smith, A.J., S.H. Kim, J. Tan, K.B. Sneed, P.R. Sanberg, C.V. Borlongan, and **R.D. Shytle**, (2014) Plasma and Brain Pharmacokinetics of Previously Unexplored Lithium Salts. *Rsc Advances*, 4(24): p. 12362-12365.PMCID:4100714;PMID:25045517
78. Kim, S.H., A.J. Smith, P.R. Sanberg, J. Tan, **R.D. Shytle**, and B. Giunta, (2015) MSM ameliorates HIV-1 Tat induced neuronal oxidative stress via rebalance of the glutathione cycle. *American Journal of Translational Research*, 7(2): p. 328-338;PMID:ISI:000352656300012
79. Bickford, P.C., Y. Kaneko, B. Grimmig, C. Pappas, B. Small, C.D. Sanberg, P.R. Sanberg, J. Tan, and **R.D. Shytle**, (2015) Nutraceutical intervention reverses the negative effects of blood from aged rats on stem cells. *Age*, 37(5);PMID:ISI:000363238100020
80. Ehrhart, J., A.J. Smith, N. Kuzmin-Nichols, T.A. Zesiewicz, I. Jahan, **R.D. Shytle**, S.H. Kim, C.D. Sanberg, T.H. Vu, C.L. Gooch, P.R. Sanberg, and S. Garbuzova-Davis, (2015) Humoral factors in ALS patients during disease progression. *Journal of Neuroinflammation*, 12;PMID:ISI:000357080200001
81. Osborn, K.E., **R.D. Shytle**, A.T. Frontera, J.R. Soble, and M.R. Schoenberg, (2016) Addressing Potential Role of Magnesium Dyshomeostasis to Improve Treatment Efficacy for Epilepsy: A Reexamination of the Literature. *Journal of Clinical Pharmacology*, 56(3): p. 260-265; PMID:ISI:000370162700002
82. Garbuzova-Davis, S., A. Thomson, C. Kurien, R.D. Shytle, and P.R. Sanberg, (2016) Potential new complication in drug therapy development for amyotrophic lateral sclerosis. *Expert Review of Neurotherapeutics*: p. 1-9
83. Osborn, K.E., R.D. Shytle, A.T. Frontera, J.R. Soble, and M.R. Schoenberg, (2016) Addressing potential role of magnesium dyshomeostasis to improve treatment efficacy for epilepsy: A reexamination of the literature. *The Journal of Clinical Pharmacology*, 56(3): p. 260-265

84. Sawmiller, D., A. Habib, S. Li, D. Darlington, H. Hou, J. Tian, R.D. Shytle, A. Smith, B. Giunta, and T. Mori, (2016) Diosmin reduces cerebral A β levels, tau hyperphosphorylation, neuroinflammation, and cognitive impairment in the 3xTg-AD mice. *Journal of Neuroimmunology*, 299: p. 98-106
85. Sawmiller, D., Li, S., Mori, T., Habib, A., Rongo, D., Delic, V., Bickford P, Shytle, RD, Tan, J. (2017). Beneficial effects of a pyrroloquinolinequinone-containing dietary formulation on motor deficiency, cognitive decline and mitochondrial dysfunction in a mouse model of Alzheimer's disease. *Heliyon*, 3(4), e00279. <http://doi.org/10.1016/j.heliyon.2017.e00279>
86. Grimmig B, Kim S-H, Nash K, Bickford PC, Shytle RD. (2017) Neuroprotective mechanisms of astaxanthin: a potential therapeutic role in preserving cognitive function in age and neurodegeneration. *GeroScience*. 39(1):19-32. doi:10.1007/s11357-017-9958-x.
87. Habib A., Sawmiller D, Li S, Xiang Y, Rongo D, Tian J, Hou H, Zeng J, Smith A, Fan S, Giunta B, Mori T, Currier G, **Shytle RD**, and Tan J. (2017) LISPRO mitigates β -amyloid and associated pathologies in Alzheimer's mice *Cell Death and Disease* 8(6): e2880; doi:10.1038/cddis.2017.279 [RETRACTED FOLLOWING USF INTERNAL INVESTIGATION]
88. Grimmig B, Kim S-H, Nash K, Bickford PC, **Shytle RD**. (2017) Neuroprotective mechanisms of astaxanthin: a potential therapeutic role in preserving cognitive function in age and neurodegeneration. *GeroScience*. 39(1):19-32. doi:10.1007/s11357-017-9958-x.
89. Sawmiller, D., Li, S., Mori, T., Habib, A., Rongo, D., Delic, V., Bickford P, **Shytle, RD**, Tan, J. (2017). Beneficial effects of a pyrroloquinolinequinone-containing dietary formulation on motor deficiency, cognitive decline and mitochondrial dysfunction in a mouse model of Alzheimer's disease. *Heliyon*, 3(4), e00279. <http://doi.org/10.1016/j.heliyon.2017.e00279>
90. Habib A, Sawmiller D, Li S, Xiang Y, Rongo D, Tian J, Hou H, Zeng J, Smith A, Fan S, Giunta B, Mori T, Currier G, **Shytle RD**, Tan J. LISPRO mitigates beta-amyloid and associated pathologies in Alzheimer's mice. *Cell Death Dis*. 2017;8(6):e2880. Epub 2017/06/16. doi: 10.1038/cddis.2017.279. PubMed PMID: 28617434; PMCID: PM
91. Leon M, Sawmiller D, **Shytle RD**, Tan J. Therapeutic Cocktail Approach for Treatment of Hyperhomocysteinemia in Alzheimer's Disease. *Cell Med*. 2018;10:2155179017722280. Epub 2018/01/25. doi: 10.1177/2155179017722280. PubMed PMID: 32634177; PMCID: PMC6172991.
92. **Shytle RD**, Eve DJ, Kim SH, Spiegel A, Sanberg PR, Borlongan CV. Retrospective Case Series of Traumatic Brain Injury and Post-Traumatic Stress Disorder Treated with Hyperbaric Oxygen Therapy. *Cell Transplant*. 2019;28(7):885-92. Epub 2019/05/29. doi: 10.1177/0963689719853232. PubMed PMID: 31134828; PMCID: PMC6719491.
93. Habib A, **Shytle RD**, Sawmiller D, Koilraj S, Munna SA, Rongo D, Hou H, Borlongan CV, Currier G, Tan J. Comparing the effect of the novel ionic cocrystal of lithium salicylate proline (LISPRO) with lithium carbonate and lithium salicylate on memory and behavior in female APP^{swE}/PS1^{dE9} Alzheimer's mice. *J Neurosci Res*. 2019;97(9):1066-80. Epub 2019/05/19. doi: 10.1002/jnr.24438. PubMed PMID: 31102295; PMCID: PMC6625860.
94. Killingsworth J, Sawmiller D, **Shytle RD**. Propionate and Alzheimer's Disease. *Front Aging Neurosci*. 2020;12:580001. Epub 2021/01/29. doi: 10.3389/fnagi.2020.580001. PubMed PMID: 33505301; PMCID: PMC7831739.

95. Park YJ, Farooq J, Cho J, Sadanandan N, Cozene B, Gonzales-Portillo B, Saft M, Borlongan MC, Borlongan MC, **Shytle RD**, Willing AE, Garbuzova-Davis S, Sanberg PR, Borlongan CV. Fighting the War Against COVID-19 via Cell-Based Regenerative Medicine: Lessons Learned from 1918 Spanish Flu and Other Previous Pandemics. *Stem Cell Rev Rep*. 2021;17(1):9-32. Epub 2020/08/14. doi: 10.1007/s12015-020-10026-5. PubMed PMID: 32789802; PMCID: PMC7423503.
96. Alexander J, Keles G, Killingsworth J, Bronson R, Perez C, Sawmiller D, **Shytle RD**. Autism, heparan sulfate and potential interventions. *Exp Neurol* 2022; 353:114050.

Book Chapters:

1. **Shytle RD** and Wilkinson B (2007) Obsessive Compulsive Spectrum Disorders. In: A comprehensive Handbook of Child and Adolescent Obsessive-Compulsive Disorders (Eds E Storch, Geffken, T Murphy).
2. Silver AA, **Shytle RD**, Philipp MK and Sanberg PR (1995). Transdermal Nicotine in Tourette's Syndrome. In: PBS Clarke, M Quik, K Thureau (eds.) The Effects of Nicotine on Biological Systems; Advances in Pharmacological Sciences, Birkhauser Publishers, pp. 293-299.
3. Sanberg PR, Martinez R, **Shytle RD**, Cahill DW (1995). The Catalepsy Test: Is a Standardized Method Possible? In: Sanberg PR, Ossenkopp KP, and Kavaliers M (eds.) Motor Activity and Movement Disorders: Research Issues and Applications. Humana Press: New Jersey. pp 197-211.
4. **Shytle RD**, Silver AA, and Sanberg PR (1995). Clinical assessment of motor abnormalities in Tourette's syndrome. In: Sanberg PR, Ossenkopp KP, and Kavaliers M (eds.) Motor Activity and Movement Disorders: Research Issues and Applications. Humana Press: New Jersey. pp 343-364.
5. Sanberg PR, Silver AA, McConville BJ, Philipp MK, Gonzalez L, **Shytle RD**, Cahill DW. (1996) Nicotine as a Therapeutic Adjunct for Tourette's Syndrome. In: Nicotine as a Therapeutic Agent, Foundation for Immunity and the Environment, Frankfurt, Germany.
6. **Shytle RD**, Silver AA, Newman MB, & Sanberg, PR: Nicotinic Therapeutics for Tourette Syndrome and other Neuropsychiatric Disorders: From Lab To Clinic (2000) In: Central Nervous System Diseases: Innovative Animal Models from Lab to Clinic Humana Press (eds. DF Emerich RL Dean PR Sanberg) Chapter 22 431-440.
7. **Shytle RD**, Baker M, Silver AA, Soloman M, & Sanberg, PR (2000) Smoking, Nicotine and Movement Disorders. In: Nicotine in Psychiatry: Psychopathology and Emerging Therapeutics. Clinical Practice Series (Eds. M. Piasecki and P. Newhouse) APA Press: Halifax: Canada 183-202.
8. **Shytle RD**, Silver AA, Newman M, Wilkinson BJ, & Sanberg, PR (2001) Nicotinic Medications and Tourette's Disorder. In: Animal Models in Nicotine Research CRC Press: Boca Raton.
9. Hart CL and **Shytle RD** (2009) Potential Pharmacotherapies for Cannabis Dependence. In *Drug Addiction and Its Treatment: Nexus of Neuroscience and Behavior* by Bankole A. Johnson and John D. Roache. 35 pages

Abstracts:

1. **Shytle RD** (1990). The Effects of Specific and Nonspecific Dopamine Antagonists on Avoidance Responding in Rats. The Journal of the Elisha Scientific Society. 106(4): 142-143.
2. Galizio M, Gregg E, Kelly L, Shriner RL, **Shytle RD** (1990). Timeout From Avoidance: A Novel Test Of Drug Effects On Negatively Reinforced Behavior. Society of Neuroscience Abstracts. 16(2): 1102.
3. **Shytle RD** and Ksir C (1993). The effects of μ -opioid antagonists on nicotine-induced locomotor activity. Society of Neuroscience Abstracts. 19(1): 829.
4. **Shytle RD**, Borlongan CV, Freeman TB, Cahill DW, Sanberg PR. (1995) Nicotine blocks kainic acid induced wet dog shakes in rats. Society of Neuroscience Abstracts. 21(1):73.

5. Sanberg PR, **Shytle RD**, Borlongan CV, Silver AA, Philipp MK, Cahill DW, Freeman TB. (1995) Nicotine, Tourette's Syndrome, and Neuroprotection. International Behavioral Neuroscience Society (Nicotine Satellite Meeting) 1:A2.
6. **Shytle RD**. Evidence of the Neuroprotective Actions of Nicotine (1995) International Behavioral Neuroscience Society (Nicotine Satellite Meeting) 2:A5.
7. **Shytle RD**, Silver AA, Philipp MK, Sanberg PR (1996) Long Term Therapeutic Response to Transdermal Nicotine in Tourette's Syndrome Patients. International Behavioral Neuroscience Society. 5:A201.
8. **Shytle RD**, Borlongan CV, Sanberg PR (1996) Kainic Acid Induced Behavioral Syndrome: Challenge With Nicotinic Receptor Ligands. Society of Neuroscience Abstracts.
9. Sanberg PR, Silver AA, **Shytle RD** (1997) Treatment of Tourette's Syndrome with Nicotinic antagonist mecamylamine American College of Neuropsychopharmacology, 36th Annual Meeting, Waikoloa, Hawaii, pp 249
10. **Shytle RD**, Silver AA, Sanberg PR (1998) Nicotinic Antagonist Improves Tourette's Syndrome International Behavioral Neuroscience Society, Richmond, VA, pp 46
11. **Shytle RD**, Silver AA, Wilkinson BJ, Newman MB, Katherine-Phillipp M, Sanberg PR, McConville B, Fogelson H. (1999) Treatment of Tourette Disorder with Transdermal Nicotine and Haloperidol. IBC's 2nd International Symposium on Nicotinic Acetylcholine Receptors, Advances in Molecular Pharmacology and Drug Development., Annapolis, MD.
12. **Shytle RD**, Silver AA, Wilkinson BJ, Newman MB, Katherine-Phillipp M, Sanberg PR, McConville B, Fogelson H. (1999) Treatment of Tourette Disorder with Transdermal Nicotine and Haloperidol. 3rd International Scientific Symposium on Tourette Syndrome., New York City, NY.
13. **Shytle RD**, Newman MB, Amiri L, Wilkinson BJ, Diamond DM, Nazian SJ, Silver AA, Sanberg PR. (1999) Low Doses of Mecamylamine Produce Anxiolytic and Antidepressant Effects in Rats. 3rd International Scientific Symposium on Tourette Syndrome. New York City, NY.
14. Sheehan DV, **Shytle RD**, Newman MB, Sanberg PR, Silver AA. (1999) Development of Tourette Disorder Scale (TODS). New Clinical Drug Evaluation Unit Program, 3rd annual Meeting. (Poster 182) Boca Raton, FL.
15. Newman MB, **Shytle RD**, Kirstein CL, and Sanberg P.R. (1999) Prenatal and postnatal exposure of nicotine: locomotor effects in rat offspring. Society of Neuroscience Abstracts.
16. **Shytle RD**, Newman MB, Amiri L, Wilkinson BJ, Diamond DM, Nazian SJ, Silver AA, Sanberg PR. (1999) Low Doses of Mecamylamine Produce Anxiolytic and Antidepressant Effects in Rats. Society of Neuroscience Abstracts.
17. Sanberg PR, **Shytle RD**, & Silver AA (2000) Nicotinic Drugs Improve Children with Tourette's syndrome and Behavioral Problems. American Association for the Advancement of Science Abstracts A56
18. Jacobs A, Bowersox S, Kisicki JC, Sanberg PR, & **Shytle RD** (2000) Pharmacokinetic evaluation of mecamylamine (Inversine®) in Adults. 10th Neuropharmacology Conference: Neuronal Nicotinic Receptors (Abstract 195)

19. Newman MB, Alvarez F, Potts SE, Manresa JJ, **Shytle RD**, & Sanberg, PR (2000) Mecamylamine Prolongs the Duration of Haloperidol-Induced Catalepsy in Rats. 10th Neuropharmacology Conference: Neuronal Nicotinic Receptors (Abstract 196)
20. Silver AA, **Shytle RD**, Sheehan DV, Sheehan KH, Ramos A & Sanberg, PR (2000) Safety and Exploratory Study of Mecamylamine Monotherapy for Tourette's syndrome. 10th Neuropharmacology Conference: Neuronal Nicotinic Receptors (Abstract 212)
21. Papke RL, Sanberg PR, & **Shytle RD** (2000) Analysis of Mecamylamine Stereoisomers on Human Nicotinic Receptor Subtypes. 10th Neuropharmacology Conference: Neuronal Nicotinic Receptors (Abstract 94)
22. Newman MB, Manresa JJ, Potts SE, Alvarez F, Sanberg PR, & **Shytle RD** (2000) Nicotine Induced Seizures are Blocked by (\pm)-Mecamylamine and its Stereoisomers. Society for Neuroscience 338.16:901
23. **Shytle RD**, Newman MB, Potts SE, Manresa JJ, Silver AA, & Sanberg PR (2000) Stereoisomers of Mecamylamine Prevent Induction of Sensitized Locomotor Response to Nicotine. Society for Neuroscience 526.3:1403
24. **Shytle RD**, Silver AA, & Sanberg PR (2000) Mecamylamine (Inversine[®]) as Proof of Principle for Treating Neuropsychiatric Disorders with Nicotinic Antagonists. American College of Neuropsychopharmacology Meeting San Juan, Puerto Rico.
25. **Shytle RD**, Silver AA, Sheehan DV, Sheehan KH, & Sanberg PR (2001) Potential mood stabilizing properties of mecamylamine (Inversine[®]) in children and adolescents with Tourette disorder. Society for Biological Psychiatry New Orleans, LA
26. Newman MB, Sanberg PR, Diamond DM, **Shytle RD** (2001) Anxiolytic effects of nicotinic receptor antagonist, mecamylamine, in male rats. FASEB Journal of Experimental Biology 2001, Orlando, FL
27. Newman MB, Lukas RJ, Kuo Y-P, Sanberg PR, **Shytle RD**, McGrogan MP, Zigova T (2001) Nicotinic Acetylcholine Receptors are Expressed on Human Derived hNT Neurons. American Society of Neuronal Transplantation Meeting, April, 2001
28. Lukas RJ, Lincoln H., Wilkens, Jr., John D. Fryer and **Shytle RD** (2001) **Nicotinic Receptors and Depression**. Society for Research on Nicotine and Tobacco.
29. **Shytle RD**, Newman MB, Zigova T, Silver AA, and Sanberg PR (2002) Nicotine Effects on Behavior and Neurogenesis In Adolescent Vs. Adult Rats. Society for Neuroscience.
30. **Shytle RD**, Lukas RJ, Silver AA, Wilkens LH, Fryer JD, Newman MB, Sheehan DV, and Sanberg PR (2002) Antidepressant Efficacy: Role of Nicotinic Acetylcholine Receptor Inhibition. Society for Biological Psychiatry Philadelphia, PA
31. **Shytle RD**, Silver AA, Sheehan KH, Sheehan DV, Ramos A, Sanberg PR (2002) Measuring Illness Severity in Tourette's Disorder. New Clinical Drug Evaluation Unit Program, 3rd annual Meeting. (Poster 51) Boca Raton, FL.

32. Newman MB, Lukas RJ, Kuo Y-P, Sanberg PR, **Shytle RD**, McGrogan MP, Zigova T (2003) Nicotinic Acetylcholine Receptors are Colocalized with Tyrosine Hydroxylase on HNT Neurons. American Society of Neuronal Transplantation Meeting
33. **Shytle RD**, J. Ehrhart, J. Zeng, F. Fernandez, A.A. Silver, J. Tan, and P.R. Sanberg (2003) Nicotine Blocks Release of TNF α - evoked by Lypopolysaccharide in Microglia. Society for Neuroscience.
34. Kristi A. Sacco, Jennifer C. Vessicchio, Melissa Dudas, Angelo Termine, Gerard Sanacora, **Shytle RD**, George TP. (2004) Nicotinic Antagonist Augmentation of SSRI Antidepressants: Preliminary Results. Society for Research on Nicotine and Tobacco.
35. **Shytle RD**, J. Ehrhart, J. Zeng, F. Fernandez, A.A. Silver, J. Tan, and P.R. Sanberg (2004) Cholinergic Regulation of Microglial Activation in Response to A β . 9th International Conference on Alzheimer' and Related Disorder. Philadelphia, USA.
36. Townsend K, Terrence Town, Lih-Fen Lue, Nan San, Jin Zeng, Takashi Mori, **Shytle RD**, David Morgan, and Jun Tan (2004) Regulation of the innate and adaptive activation of microglia in responses to A β by CD40 signaling. 9th International Conference on Alzheimer' and Related Disorder. Philadelphia, USA.
37. **Shytle RD**, J. Ehrhart, J. Zeng, F. Fernandez, A.A. Silver, J. Tan, and P.R. Sanberg (2004) Galantamine/Nicotine Coadministration Synergistically Inhibits Microglial Activation. American Society of Neuronal Transplantation and Repair Meeting, Clearwater, Fl,
38. **Shytle RD**, Townsend K., N. Sun; J. Zeng, T. Mori, F. Fernandez, PR. Sanberg, J. Tan (2004) Nicotine/Galantamine as an Anti-Inflammatory Therapy for Neurodegenerative Disease. Society for Neuroscience. 34th Annual Meeting, San Diego, CA.
39. **Shytle RD**, Ehrhart J, Zeng J, Tan J, Sanberg PR. (2005). Are Alpha9 Nicotinic Receptors Expressed in Microglia Functional? Society for Neuroscience, Washington, D.C.
40. **Shytle RD**, J Tan, CD Sanberg, N El-Badri, PR Sanberg and PC Bickford. (2006) Natural Products Promote Proliferation of Human Stem Cells. Poster Presentation at the American Society for Neural Transplantation and Repair Meeting, Clearwater, Fl.
41. **Shytle RD**, Y. Bai, J. Ehrhart, P.R. Sanberg, P.C. Bickford, J. Tan (2006). Apigenin modulates microglial activation. Society for Neuroscience, Atlanta, GA
42. **Shytle R.D.**, Obregon D., Ehrhart J., Fernandez F., Tan J. (2006) Antiretrovirals Increase Neuronal Production and Disrupt Microglial Phagocytosis of beta-amyloid. AIDS 2006 - XVI International AIDS Conference, Toronto, CANADA.
43. **Shytle RD**, Y. Bai, J. Ehrhart, P.R. Sanberg, P.C. Bickford, J. Tan (2007) . Apigenin modulates microglial activation via inhibition of functional CD40 expression. Poster Presentation at the American Society for Neural Transplantation and Repair Meeting, Clearwater, Fl
44. **RD Shytle** (2007) Nicotine/Cannabinoid Therapy for Alzheimer's disease. NIH/NIA: Alzheimer's Disease Translational Research Investigators Meeting, September, 2007; Bethesda, MA.
45. J. Ehrhart, J. Zeng, P. Sanberg, J. Tan, **RD Shytle** (2007)· Nicotine and cannabinoid co-administration synergistically inhibits microglial activation. Annual Meeting of the Society for Neuroscience,

November 2-7, 2007; San Diego, California, Society for Neuroscience Abstracts. Program# 49.1
Poster#:L13

46. **RD Shytle**, J. Ehrhart, Jin Zeng, Jun Tan, Paul R. Sanberg (2007) Nicotine/Cannabinoid Coadministration As a Therapeutic Approach to Neurodegenerative Disease. Annual Meeting of the American Society for Neuropsychopharmacology, December 9-13th, 2007; Boca Raton, Florida. Poster #169.
47. **RD Shytle**, J. Ehrhart, Jin Zeng, Jun Tan, Paul R. Sanberg (2008). Nicotine/Cannabinoid Coadministration As a Therapeutic Approach to Neuroinflammation. Poster Presentation at the American Society for Neural Transplantation and Repair Meeting, Clearwater, Fl, May, 2008
48. **RD Shytle** and David Sheehan (2008). Neuropsychiatric Symptoms Associated with Chantix® (varenicline) Presentation to Chantix® Medical Team, Pfizer Inc., Global Headquarters, NY, March, 2008
49. J. Ehrhart, J. Zeng, P. Sanberg, J. Tan, **RD Shytle** (2008). Effectiveness of omega 3 fatty acid treatment in children and adolescents with impulsive aggression. Annual Meeting of the Society for Neuroscience, November 2008; Washington, DC, Society for Neuroscience Abstracts. Program# 49.1
Poster#:L13
50. **RD Shytle**, J. Ehrhart, Jin Zeng, Jun Tan, Paul R. Sanberg (2009). Turmeric extract reduces beta-Amyloid and tau pathology in Alzheimer's mice. Poster Presentation at the American Society for Neural Transplantation and Repair Meeting, Clearwater, Fl, May, 2009
51. Sheehan DV, Sheehan KH, **Shytle RD**, Janavs J, Bannon Y, Rogers J, Milo K, Stock S, Wilkinson B. (2009) Reliability and Validity of The Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI-KID) Poster Presentation at the NCDEU Meeting, Phoenix, AR, June, 2009
52. Bachstetter, AD, Jernberg, J, Schlunk, A, Vila, JL, Hudson, C, Cole, MJ, **Shytle, RD**, Tan, J, Sanberg, PR, Sanberg, CD, Boriongan, C, Kaneko, Y, Tajiri, N, Gemma, C, Bickford, PC (2010) Spirulina Promotes Stem Cell Genesis and Protects against LPS Induced Declines in Neural Stem Cell Proliferation. PLOS ONE 5(5)
53. Bachstetter, AD, Jernberg, J, Schlunk, A, Vila, JL, Hudson, C, Cole, MJ, **Shytle, RD**, Tan, J, Sanberg, PR, Sanberg, CD, Boriongan, C, Kaneko, Y, Tajiri, N, Gemma, C, Bickford, PC (2010) Spirulina Promotes Stem Cell Genesis and Protects against LPS Induced Declines in Neural Stem Cell Proliferation. AU Bachstetter, Adam D. PLOS ONE 5(5)
54. Ehrhart, J, Tan, J **Shytle, RD** (2011) Combination of Nicotine and Delta 9-THC Reduces Microglial Activation and Proinflammatory Cytokine Production in PSAPP Mice. 11th International Neural Transplantation and Repair Meeting/18th Annual Meeting of the American-Society-for-Neural-Therapy-and-Repair MAY 04-08, 2011 CL Clearwater, FL CELL TRANSPLANTATION 20 (4): 553
55. Le, L, Acosta, S, Sanberg, CD, **Shytle, RD**, Tan, J, Bickford, PC (2011) Nutritional Supplementation of NT-020 in Aged Rats Promotes an Environment Permissive for Stem Cell Genesis. 11th International Neural Transplantation and Repair Meeting/18th Annual Meeting of the American-Society-for-Neural-Therapy-and-Repair MAY 04-08, 2011 CL Clearwater, FL CELL TRANSPLANTATION 20 (4): 568
56. **Shytle, RD**, Dragicevic, N, Smith, A, Bradshaw, P, Sanberg, PR, Bickford, PC, Sanberg, CD (2011) *Rhodiola rosea* Increases the Proliferation of Adult Bone Marrow Stem Cells and Improves

57. **Shytle, RD**, A.J. Smith, P. Kavuru, M.J. Zaworotko (2012) A novel lithium cocrystal with improved oral bioavailability and targeted brain delivery **ASNTR 2012**
58. **Shytle, RD**, A.J. Smith, P. Kavuru, L. Wojtas, M.J. Zaworotko (2012) Cocrystals of quercetin with improved oral bioavailability may be useful for treating neurodegenerative disease **ASNTR 2012**
59. **Shytle, RD**, A.J. Smith, P. Kavuru, M.J. Zaworotko (2012) A novel lithium cocrystal with improved oral bioavailability and targeted brain delivery **NAI 2012**
60. **Shytle, R.D.**, A.J. Smith, P. Kavuru, and M.J. Zaworotko, (2012) A Novel Lithium Cocrystal With Improved Oral Bioavailability and Targeted Brain Delivery. *Cell Transplantation*, 21(4): p. 792-792;PMID:ISI:000305497900067
61. **Shytle, R.D.**, A.J. Smith, P. Kavuru, L. Wojtas, and M.J. Zaworotko, (2012) Cocrystals of Quercetin With Improved Oral Bioavailability May be Useful for Treating Neurodegenerative Disease. *Cell Transplantation*, 21(4): p. 791-792;PMID:ISI:000305497900066
62. Smith, A.J., P. Kavuru, K.K. Arora, S. Kesani, J. Tan, M.J. Zaworotko, and **R.D. Shytle**, (2013) Crystallographic Analysis of Green Tea Epigallocatechin-3-Gallate (EGCg) and Pharmacokinetic Modulation Using Cocrystallization. *Cell Transplantation*, 22(5): p. 916-916; PMID:ISI:000318585300080
63. Kim, S.H., A.J. Smith, B. Giunta, and **R.D. Shytle**, (2014) Therapeutic Effect of Methylsulfonylmethane (MSM) Against HIV-1 Viral Protein Induced Oxidative Stress. *Cell Transplantation*, 23(6): p. 774-774;PMID:ISI:000338484000046
64. Smith, A.J., S.H. Kim, N.K. Duggirala, J. Jin, L. Wojtas, J. Ehrhart, B. Giunta, J. Tan, K.B. Sneed, P.R. Sanberg, C.V. Borlongan, M.J. Zaworotko, and **R.D. Shytle**, (2014) Improving the Safety and Efficacy of Lithium Therapeutics Abstracts. *Cell Transplantation*, 23(9): p. 1167-1168; PMID:ISI:00034296850001
65. Kim, S.H. and **R.D. Shytle**, (2015) Protective Effect of N-Acetylcysteine (NAC) and Methylsulfonylmethane (MSM) Against Acetaminophen (APAP)-Induced Oxidative Stress In Vitro. *Cell Transplantation*, 24(4): p. 762-762;PMID:ISI:000353928700049