

CURRICULUM VITAE

Roger Lee Papke

DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS
UNIVERSITY OF FLORIDA SCHOOL OF MEDICINE
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Gainesville, Florida 32610
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rlpapke@ufl.edu

BIOGRAPHICAL DATA:

Born: October 12, 1953, Kenmore, New York
Married: December 24, 1980 to Clare Stokes
Citizenship: U. S. A.

EDUCATION:

Starpoint Central School
Pendleton, N. Y.
Primary and Secondary
N.Y.S. Regents Diploma 1971

New York University
Washington Square College of Arts and Sciences
1971 - 1975
Majors in Biology and Classical Civilization
Bachelor of Arts awarded May 1975

New York University
Graduate school of Arts and Sciences
1975 - 1976
Thesis advisor: Dr. Fleur L. Strand
Thesis title: *An Alpha Adrenergic Response of Cardiac Muscle at an Alkaline pH*
Master of Science awarded May 1976

Cornell University
Graduate School of Arts and Science
1976-1979: Section of Physiology
Graduate Research Assistant in Reproductive Physiology
Advisor: Dr. William Hansel
Research topic: The endocrine control of delayed implantation in mink

Cornell University
Graduate School of Arts and Science
1979-1986: Section of Neurobiology and Behavior
Thesis Advisor: Dr. Robert Oswald
Primary research topic: Pharmacology of nicotinic acetylcholine receptors
Thesis Title: *The Gating of Single Channel Currents Through the Nicotinic Acetylcholine Receptors of BC₃H-1 Cells: Effects of Agonists and Allosteric Ligands*
Ph.D. conferred January 1987

ACADEMIC APPOINTMENTS:

- 1987 Postdoctoral Research Associate: Department of Pharmacology,
Cornell University
- 1987 Lecturer: Department of Neurobiology and Behavior,
Cornell University
- 1988-1993 Postdoctoral Research Fellow: Molecular Neurobiology Laboratory,
Salk Institute
- 1993-1998 Assistant Professor: Department of Pharmacology and Therapeutics,
University of Florida
- 1994-1998 Affiliate Assistant Professor: Department of Neuroscience
University of Florida
- 1998-2006 Associate Professor: Department of Pharmacology and Therapeutics,
University of Florida
- 1998-2006 Affiliate Associate Professor: Department of Neuroscience
University of Florida
- 2006 - Professor: Department of Pharmacology and Therapeutics,
University of Florida
- 2006 - Affiliate Professor: Department of Neuroscience
University of Florida

HONORS AND AWARDS:

- 1971-1975 University Scholar, New York University
- 1971-1975 N.Y.S. Regents Scholarship
- 1975-1976 Graduate Fellowship, New York University
- 1976-1979 Graduate Research Assistantship, Cornell University
- 1979-1983 N.I.H. Cellular and Molecular Biology Traineeship,
1985-1986 Cornell University
- 1983 Weigand Fellowship, Cornell University
- 1985 Rosenblatt Fellowship, Cornell University
- 1986 Travel Fellowship, NATO

HONORS AND AWARDS (continued)

1986	Biotechnology Research Fellowship, Cornell University
1988, 1989	J. Aaron Fellowship, Salk Institute
1989-1992	NIMH Post-doctoral Fellowship
1994	International Human Frontier Science Program Short-term Fellowship
2002	University of Florida, College of Medicine Top Ten Basic Science Faculty
2003	University of Florida, College of Medicine Exemplary Teacher award
2004	Co-recipient of R&D 100 award
2006	University of Florida, College of Medicine Exemplary Teacher award
2011	University of Florida, College of Medicine Exemplary Teacher award
2014	University of Florida, College of Medicine Exemplary Teacher award
2016	University of Florida, College of Medicine Exemplary Teacher award

ADMINISTRATIVE SERVICES

1994	Graduate Student Advocacy Committee
1995	Markey Fellow Faculty Search Committee
1995-96	University of Florida IDP Graduate Program Steering Committees
1997-98	College of Medicine Curriculum Committee Task Force For Vertical Integration of Neuroscience Teaching
1998	Dental College Neuroscience Faculty Search Committee
2000	Neuroscience Comprehensive Pain Program Director Search
2003-2004	Pharmacology Graduate Program Curriculum Committee
2005	Pharmacology Department Faculty Search Committee Chair
2009-2013	College of Medicine Professorial Tenure and Promotion Committee
2012-13	Pharmacology Department Faculty Search Committee

HONORS AND AWARDS (continued)

- 2014-15 Pharmacology Department Faculty Search Committee
- 2016 - 19 Pharmacology Department Tenure and Promotion Committee, Chairman

GRANTS AND RESEARCH SUPPORT FUNDING:

- 1994-1996 Principle Investigator: American Heart Association Grant in Aid
The Molecular Substrates of The Nicotinic Regulation of Cardiovascular Function
Total direct support for investigator: \$80,000
- 1994-2002 Consultant/Investigator: Taiho Pharmaceuticals
Studies of Nicotinic $\alpha 7$ Selective Agonists
Total direct support for investigator: \$160,000
- 1995 Principle Investigator: University of Florida Research Development
Award
Structural Elements of Nicotinic ACh Receptor Regulating Divalent Ion Permeability
Total direct support for investigator: \$25,000
- 1995-1998 Principle Investigator: N.I.H. RO-1 Research Award:
Structural Elements of Nicotinic Acetylcholine Receptors
Total direct support for investigator: \$500,000
- 1995-1996 Co-Investigator: N.I.A.D.A RO-1 Research Award
Chronic Ethanol Effects on Hippocampal LTP
Total direct support for investigator: \$12,000
- 1996-1997 Principle Investigator: R. J. Reynolds Gift Awards
Molecular Mechanism of Nicotinic Drugs in Mammalian Brain
Total direct support for investigator: \$40,000
- 1996-1999 N.I.H Program Project: Discovery of Novel Drugs for Alzheimer's
Disease
Co-Investigator on Project 2:
Nicotinic Agonists and Alzheimer's Disease
Total direct support for investigator: \$120,000
- 1999-2001 Principle Investigator: Layton Bioscience research award
Mechanistic studies of the inhibition of human neuronal nicotinic receptor subtypes by
stereoisomers of mecamylamine
Total direct support for investigator: \$50,000
- 1999-2009 N.I.H Program Project: Discovery of Novel Drugs for Alzheimer's
Disease
Co-Investigator on Project 2: Renewal

<u>Nicotinic Agonists and Alzheimer's Disease</u>		
	Annual direct support for investigator:	\$75,000
2000-2004	Principle Investigator: N.I.H. RO-1 Research Award: Targeting $\alpha 7$ nAChR for therapeutic effects	
	Total direct support for investigator:	\$600,000
2001-2004	Principle Investigator: McKnight Foundation Research Award: The role of the septo-hippocampal cholinergic system in age-related memory dysfunction	
	Total direct support for investigator:	\$200,000
2002-2005	Principle Investigator: Targacept Research Award Characterization of putative subtype-selective nicotinic receptor agonists	
	Total direct support for investigator:	\$60,000/yr
2002-2004	Principle Investigator: Memory Pharmaceuticals Research Award: Characterization of putative $\alpha 7$ -selective nicotinic receptor agonists	
	Total direct support for investigator:	\$60,000
2003- 2008	Co-investigator, NIDA MH-03-008 Characterization of putative subtype-selective nicotinic receptor agonists and antagonists	
	Annual direct support for investigator:	\$80,000
2005-2006	Principle Investigator: Servier Research Award The activity profile of an alpha7-selective drug.	
	Total direct support for investigator:	\$68,884
2005-2006	Principle Investigator: McKnight Foundation Research Award: Modulation of neurotransmitter receptor function in memory circuits of the brain	
	Total direct support for investigator:	\$75,000
2005-2009	Principle Investigator: N.I.H. RO-1 Research Award: Targeting $\alpha 7$ nAChR for therapeutic effects (renewal)	
	Total direct support for investigator:	\$1,200,000
2006-2006	Principle Investigator: Servier Research Award Electrophysiological effects of S 24795 on nicotinic Acetylcholine receptors, in hippocampal brain slices and <i>Xenopus</i> oocytes	
	Total direct support for investigator:	\$68,588
2007-2008	Principle Investigator: Critical Therapeutics Research Award The activity profile of alpha7-selective drugs	
	Total direct support for investigator:	\$10,000
2007-2008	Principle Investigator: Servier Research Award Evaluation of S 38232 with <i>in vitro</i> and <i>ex vivo</i> preparations: nicotinic receptor interactions and modulation by A-beta	
	Total direct support for investigator:	\$61,500

2008-2009	Principle Investigator: Targacept Research Award Activity of nicotinic receptor agonists on high sensitivity and low sensitivity nAChR	Total direct support for investigator:	\$60,000/yr
2008-2014	Principle Investigator: Lundbeck Research Award Evaluation of the efficacy and specificity of putative nAChR positive allosteric modulators	Total direct support for investigator:	\$14,830/yr
2009-2011	Principle Investigator: SK Holdings Research Award Stable desensitization and signal transduction by $\alpha 7$ agonists	Total direct support for investigator:	\$28,000/yr
2010	Principle Investigator: N.I.H. RO-1 supplement: Targeting $\alpha 7$ nAChR for therapeutic effects	Total direct support for investigator:	\$50,000
2010-2015	Principle Investigator: James and Esther King Biomedical Research Program Grant Therapies to improve smoking cessation in neuropsychiatric and depressed patients.	Total direct support for investigator:	\$100,000/yr
2010-2015	Principle Investigator: N.I.H. RO-1 Research Award: Targeting $\alpha 7$ nAChR for therapeutic effects (second renewal)	Total direct support for investigator:	\$1,200,000

2012-2013	Principle Investigator: SK Holdings Research Award SK-A4R Binding interaction studies	Total direct support for investigator:	\$110,000
2012-2014	Principle Investigator: Servier Research Award Effects of nicotinic ligands on nicotinic alpha7 receptors in Xenopus oocytes	Total direct support for investigator:	\$6,000
2012-2013	Principle Investigator: Servier Research Award Evaluation of compounds for antagonist activity with rat nicotinic alpha7 receptors in Xenopus oocytes	Total direct support for investigator:	\$112,600
2012-2013	Principle Investigator: Asmacure Ltee Research Award In vitro characterization of the cholinergic receptor profile of ASM-024 and its metabolite ASM-073	Total direct support for investigator:	\$12,600
2013-2015	Principle Investigator: Servier Research Award Evaluation of novel nicotinic alpha7 ligands	Total direct support for investigator:	\$42,600
2014-2020	Co- Investigator: United States- Israel Binational Science Foundataion Understanding the mechanisms of action of alpha7 nicotinic acetylcholine receptor and RIC-3 in the cholinergic antiinflammatory pathway	Total direct support for investigator:	\$75,000
2015-2017	Co- Investigator: R21 DA038286-01A1 Effects of GTS-21 on smoking behavior and neurocognitive function	Total direct support for investigator:	\$4,976
2016-2019	Principle Investigator: N.I.H. R01 GM057481 Continuation Targeting α 7 nAChR for therapeutic effects	Total direct support for investigator:	\$1,150,000
2017	CTSI Limited submission Network Science Pilot awards program. Linking Prenatal Smoking Cessation Therapies to Infant Health Outcomes	Total direct support for investigator:	\$1,500
2019	College of Charleston/UNITED STATES DEPARTMENT OF COMMERCE, National Institute of Standards and Technology Hollings Marine Laboratory 1% salary support for PI during studies of new cono-toxins	Total direct support for investigator:	\$2,026

TEACHING EXPERIENCE:

Formal courses

1977 Teaching Assistant: Endocrinology, Cornell University,

TEACHING EXPERIENCE (continued)

- 1978 Teaching Assistant: Mammalian Physiology, Cornell University
- 1980 Laboratory Instructor: Principles of Neurophysiology, Cornell University
- 1981 Teaching Assistant: Cellular Neurobiology, Cornell University
- 1983-5 Laboratory Instructor: Principles of Neurophysiology, Cornell University
- 1984 Teaching Assistant: Introduction to Neurobiology, Cornell University
- 1985 Head Teaching Assistant: Introduction to Neurobiology, Cornell University
- 1987 Lecturer and Course Director: Principles of Neurophysiology,
Cornell University
- 1994- Lecturer: Dental Pharmacology, University of Florida College of Dentistry
- 1995 Lecturer: Pharmacotherapeutics for Physician Assistants,
University of Florida, College of Health Related Professions
- 1995-99 Course Director and Lecturer: Pharmacotherapeutics for Physician
Assistants, University of Florida, College of Health Related
Professions
- 1994- Lecturer: Medical Pharmacology, University of Florida,
College of Medicine
- 1994-97 Lecturer: Molecular Pharmacology, University of Florida, Graduate School
- 1994-97 Lecturer: Molecular Neuroscience, University of Florida, Graduate School
- 1994- Mentor: Junior Honors in Pharmacology, University of Florida
- 1994-6 Course Director: Student Research Presentations in Pharmacology and
Physiology, University of Florida, Graduate School
- 1994-98 Lecturer: Principles of Drug Action, University of Florida, Graduate School
- 1995- Course Director and Lecturer: Ion Channels of Excitable Membranes
University of Florida, Graduate School
- 1996-03 Discussion group coordinator: Interdisciplinary Graduate program in
Biomedical Sciences, University of Florida
- 1998- Course Director and Lecturer: Synaptic Function and Plasticity
University of Florida, Graduate School

TEACHING EXPERIENCE (continued)

- 2001-03 Course Director and Lecturer: Principles of Neuroscience II: Signaling In The Nervous System University of Florida, Graduate School
- 2002- Lecturer: Principles of Drug Action, University of Florida, Graduate School
- 2004 Lecturer: Principles of Neuroscience II: Signaling In The Nervous System University of Florida, Graduate School
- 2013-15 Lecturer: Neuropharmacology, University of Florida, Graduate School
- 2017- Lecturer: SURF program
- 2018- Course co-Director and Lecturer: Ion Channels of Excitable Membranes University of Florida, Graduate School
- 2018- Lecturer: GMS6560 Molecules to Man
- 2019 Lecturer: On-line Pharmacology certificate program
- 2019 Lecturer: GMS 6705 Functional Human Neuroanatomy

Informal courses and journal clubs

- 1994 Organizer and lecturer: Molecular Biology coffee hour
- 1993- Organizer and lecturer: Ion Channel Pharmacology Journal Club

STUDENTS AND TRAINEES

Post-Doctoral Trainees:

- 1994-1996 Rebecca Moulton, Ph.D.
- 1995-1996 Lakshmi Jakkula, Ph.D.
- 1995-1996 Kung Il Choi, Ph.D.
- 1996-1999 Anatolii Kabakov, Ph.D.
- 1997-1999 Tom Nutter, Ph.D.
- 2000-2001 Lance Molnar
- 1999-2004 Vladimir Uteshev
- 2000-2003 Charles Jason Frazier
- 2003-2005 Thomas McCormack
- 2006 Andon Placzek

2005- 2010 Gretchen Lopez
2011- 2015 Can Peng
2012- 2013 Chengju Tian
2016- Marta Quadri

PRE-DOCTORAL STUDENTS:

1993-1998 Michael Francis, University of Florida, Department of Neuroscience
Ph.D. Program
Awarded: University of Florida DSR Graduate Award 1994-1995
Awarded: N.I.H. National Research Service 1995-1998
Ph.D. Awarded August 1998 Thesis title: *Subunit specific determinants of the function and pharmacology of nAChR*

1994-1999 Nik Karkanias, University of Florida, Department of Neuroscience
Ph.D. Program
Awarded: University of Florida DSR Graduate Award 1994-1995
Awarded: Center for Neurobiological Sciences Graduate Award
1997-1999
Ph.D. Awarded August 1999 Thesis title: *Lithium modulates desensitization of AMPA receptors*

- 2000-05 Andon Placzek, University of Florida, Department of Pharmacology
Ph.D. Program
Awarded: N.I.H. National Research Service 2003-2005
Ph.D. Awarded April 2005 Thesis title: *Regulation of Alpha7 Nicotinic Acetylcholine Receptor Function and Pharmacology by Amino Acid Sequence in the Second Transmembrane Domain*
- 2007-11 Jingyi Wang, University of Florida, Department of Chemistry
Ph.D. Program, co-mentored with Dr. Nicole Horenstein
Awarded: Crow awards for excellence in scientific publication
Awarded: Procter & Gamble Research Award
Ph.D. Awarded December 2011 Thesis title: *Using Molecular Tools To Study The Structure And Functional States Of The Human A7 Nicotinic Acetylcholine Receptor*
- 2008-12 Dustin Williams, University of Florida, Department of Pharmacology
Ph.D. Program
Ph.D. Awarded May 2012 Thesis title: *Activation, Desensitization And Potentiation Of Alpha7 Nicotinic Acetylcholine Receptors: Relevance To Alpha7-Targetted Therapeutics*
- 2010-13 Kinga Chojnacka, University of Florida, Department of Chemistry
Ph.D. Program, co-mentored with Dr. Nicole Horenstein
Ph.D. Awarded December 2013 Thesis title: *Synthesis Of Nicotinic Receptor Ligands And Strigolactones*
- 2012-2016 Abhijit Kulkarni, Department of Pharmaceutical Sciences
Bouvé College of Health Sciences, Northeastern University.
External committee member
Ph.D. Awarded August 2016 Thesis title: *Novel Allosteric Modulators of $\alpha 7$ Nicotinic Acetylcholine Receptor and Development of Efficient Technologies Enabling Synthesis of Tetrahydroquinolines and Unsymmetrical Ureas*
- 2016-2017 Alican Gulsevin, Department of Chemistry, University of Florida
External committee member
Ph.D. Awarded December 2017 Thesis title: *A Comparative Analysis of The Principles Behind $\alpha 7$ Nicotinic Acetylcholine Receptor Function*
- 2017 - 2019 Joseph Libowitz, Neuroscience concentration, University of Florida IDP
Committee member
Ph.D. Awarded December 2019 Thesis title: *Kv2.1 Clusters as Discrete Regulatory Microdomains of Dopamine Transporter Trafficking, Mobility, and Activity*

OTHER STUDENTS AND TRAINEES:

- 1995-97 Keith Sawh, Master's Thesis student, University of Florida, D

STUDENTS AND TRAINEES (continued)

1993-94 Uyen Dao, University of Florida Undergraduate Research Student

1994 Jeff Henry, University of Florida Undergraduate Research Student

1994 Sherry Robinson, Minority Student Collegiate Research Program

1995 Sima Jain, Florida Pre-Collegiate Student Research Program

1996 Peter Roessler, University of Florida Undergraduate Research Student

1997 Jose Gomez, University of Florida Undergraduate Research Student

1999 Jessica Walrath, University of Florida Graduate Rotation Student

1999 Ken Schmidt, University of Florida Graduate Rotation Student

2000 Andon Placzek, University of S. Florida, visiting Graduate student

2000 Heather Courtney, University of Florida Undergraduate Honors student

2003 Cain Soltoff, Florida Pre-Collegiate Student Research Program

2003 Michael Spertus, Florida Pre-Collegiate Student Research Program

2003-05 Susan Le Francois, University of Florida Graduate Student (committee member)

2003-06 Kristin Wildeboer, University of Florida Graduate Student (committee member)

2004 Yesenia Del Valle, University of Florida Graduate Rotation Student

2004 Karen Porter, University of Florida Graduate Rotation Student

2005 Laura Faye Butler, Research rotation student University of Bath, United Kingdom

2005 Matthew Pellnitz, University of Florida Undergraduate Honors student

2006 Jeremiah Mitzelfelt, University of Florida Graduate Rotation Student

2006 Casie Lindsly, University of Florida Graduate Rotation Student

2007 Larissa Caudill, University of Florida Graduate Student (committee member)

2007- Fedra Leonik , University of Florida Graduate Student (committee member)

2007 Dustin Williams, University of Florida Graduate Rotation Student

2008 Jennifer Stamps, University of Florida Graduate Rotation Student

- 2010 Natalia Diaz, University of Florida Graduate Rotation Student
- 2011 Melinda Nicole Williams, Summer Research for Rising Seniors Student
- 2011 Monica Santisteban, University of Florida Graduate Rotation Student
- 2012 Gayathri Srinivasan, University of Florida Graduate Rotation Student
- 2012- Kinga Chojnack, University of Florida, Department of Chemistry (Ph.D. committee member)
- 2013 Akshatha Rao, University of Florida undergraduate lab trainee
- 2013-2017 Khan Manther, University of Florida undergraduate lab trainee
- 2014 Siham Hourani, University of Florida Graduate rotation student
- 2014-2015 Marta Quadri, co-mentor international student, University of Milan
- 2015 Joseph J Lebowitz, University of Florida Graduate rotation student
- 2016 Ciara Sanon, UF ASPET Summer Fellowship student
- 2017 Kofi Ofofu, UF ASPET Summer Fellowship student
- 2017-2018 Maria Chiara Pismataro, co-mentor international student, University of Milan
- 2017 Joseph Dragone, University of Florida Graduate rotation student
- 2019 Meghan Grandal, visiting student, Hollings Marine Laboratory
- 2019- Jay Patel University of Florida undergraduate lab trainee

FLORIDA STATE BOARD OF REGENTS CENTERS OF EXCELLENCE:

Member, Brain Research Institute, University of Florida

Member, Cancer Institute, University of Florida

Member, Myology Institute, University of Florida

Member, Center for Addiction Research and Education, University of Florida

PROFESSIONAL SOCIETIES:

Society for Neuroscience

Biophysical Society

International Brain Research Organization

American Society for Pharmacology and Experimental Therapeutics

Society for Research on Nicotine and Tobacco

PATENTS:

Use-dependent Inhibition of Neuronal Nicotinic Acetylcholine Receptors.

A proposed treatment for nicotine addiction.

UF # 955,674 Filed by The Salk Institute October 2, 1992. Inventor: Roger L. Papke.

Methods For The Use And Compositions For Benzylidene- And Cinnamylidene-Anabaseines. UFL:041. Inventors: Edwin Meyer, William Kem, Franz VanHaaren, John A. Zoltewicz, Christopher M. de Fiebre, Roger Papke, and Art Day.

U.S. patent # 5,977,144 issued November 2, 1999

Compositions and Methods for Treatment of Neurological Disorders

U.S. Patent Application Docket No. UF-293; UF#-10359; Inventor: Roger L. Papke.

U.S. patent # 6,852,741 issued February 8, 2005

Variant Neuronal Nicotinic Alpha7 Receptor and methods for use

U.S. Patent Application Docket No. UF-408 Inventors: Roger L. Papke and Andon Placzek.

Rigid Nicotine Analogs that are Selective Activators of Neuronal Nicotinic alpha7 Receptors. Docket No. UF-10675 Inventors: Roger L. Papke, P. Crooks, and L. Dwoskin.

Compositions And Methods For Selective Inhibition Of Nicotine Acetylcholine

Receptors. U.S. Patent Application Docket No. UF-13023 Inventors: Roger L. Papke and Nicole Horenstein. U.S. Patent Nos. 7531555, 8980923

Tris-Quaternary Ammonium Salts and Methods for Modulating Neuronal Nicotinic Acetylcholine Receptors. University of Kentucky Docket number 12/158,192

U.S. Patent No. 8,299,253

Use Of A Novel Alpha7 nAChR Antagonist To Suppress Pathogenic Signal

Transduction In Cancer And AIDS. University of Kentucky Docket number PAC-0006 Application number 61/195,820

Compositions, Methods of use, and Methods of treatment for nicotine dependence in high risk patients. U.S. Patent Application Docket No. UF-222106-8770 Inventors: Roger L. Papke, Adriaan Willem Bruijnzeel and Sara Jo Nixon. Issued Patent No: 9,233,109

Compositions, Methods Of Use, And Methods Of Treatment Of Betel (Areca) Nut Addiction. Docket No: 222108-880. (UF 15725) Inventors: Roger L. Papke, Nicole A. Horenstein, Clare Stokes

Ligands for Alpha-7 Nicotinic Acetylcholine Receptors and Methods of Treating Neurological and Inflammatory Conditions Docket No. UF-15850 Inventors: Ganesh Thakur, Roger L. Papke US371 Application No. 15/328,112

Silent Agonists for the alpha7 nicotinic acetylcholine receptor. Docket No. UF#-15887 Inventors: Nicole A. Horenstein, Marta Quadri, Roger L. Papke

Novel Small Molecule Nicotinic Acetylcholine Receptor Agents. Application number 62/464,326. Inventors: Nicole A. Horenstein, Marta Quadri, Roger L. Papke

Betel quid cessation therapy with nicotine and pilocarpine Docket No. UF#-16839 Inventors: Roger L. Papke and Sam Glatman

CONSULTATION SERVICES, INDUSTRIAL:

1993 - 2004	Axon Instruments, Union City, CA
1994 - 2003	Taiho Pharmaceuticals, Japan
1995 – 1998	R. J. Reynolds Tobacco, Winston-Salem, NC
1997 – 1998	Burleigh Instruments
1999 - 2000	Layton Biosciences
2000 - 2011	Targacept Pharmaceuticals
2000	AstraZeneca
2001 - 2003	Memory Pharmaceuticals
2003 - 2008	Critical Therapeutics
2008	Cornerstone Therapeutics
2004 - 2005	Molecular Devices
2004	Bristol Meyer Squib
2004 - 2017	Servier

PATENTS (continued)

2007 - 2016	Lundbeck
2008	Krog & Partners Incorporated
2008 - present	Guidepoint Global
2008 - 2009	SK Holdings
2011	Sanofi Adventis
2011 - 2013	Asmacure L. C. C.
2014	Demerex
2014	Pfizer
2015	Merck Sharp & Dohme Corp
2015	BVF Partners L.P.
2016-present	Attenua
2016-present	Guava Myanmar

CONSULTATION SERVICES, ACADEMIC:

2007- 2011	Program advisory committee, University of Puerto Rico NeuroAIDs program
2010	University of Florida Pew Scholars Program in the Biomedical Sciences Wellcome Trust Scientific Conference Nicotinic Acetylcholine Receptors Cambridge England, 18th - 22nd May 2011 Scientific Advisory board
2011	Nicotinic Acetylcholine Receptors as Therapeutic Targets: Emerging Frontiers in Basic Research and Clinical Science” , Washington DC Nov. 9-11 th , 2011 Scientific Advisory Board
2011-13	INBRE Mentoring program, University of Hawaii at Hilo.
2013	Reviewer for the Dutch Research Council

- 2013 Nicotinic Acetylcholine Receptors as Therapeutic Targets:
Emerging Frontiers in Basic Research and Clinical Science” ,
San Diego Nov. 6-8th, 2013
Scientific Advisory Board
- 2017 Nicotinic Acetylcholine Receptors Meeting, Chania, Crete, May 7-
11, 2017
International Advisory Board

REVIEW SERVICES:

Grants:

- National Institute of Health Neurological Sciences: Emerging
Technologies and Training in Neurosciences IRG Study Section
- National Institute of Health Neurological Sciences Study Section
- National Science Foundation
- National Institute on Drug Abuse
- National Cancer Institute
- Biotechnology and Biological Sciences Research Council of the United
Kingdom
- National Institute on Neurological Disease and Stroke
- National Center for Complimentary and Alternative Medicine
- Phillip Morris Foundation
- Institute for Mental Health Research.
- External Advisory Committee Specialized Neuroscience Research
University of Puerto Rico Medical Sciences Campus
- Michael Smith Foundation for Health Research
- Special study section for RFA-DA-11-007: Assay Development for High
Throughput Screening for Nicotinic Receptor Subunits
Chairman

IMST-11 Small Business review panel

Special study section for RFA- MH-12-140: Development of Tools to Explore the Synaptome

Special study section for RFA DA 13-004 “Synthesis and Preclinical Evaluation of Medications to Treat Substance use Disorders

Therapeutics Discovery X02 Special Emphasis Panel (SEP)

Special study section for RFA DA 13-004 “Synthesis and Preclinical Evaluation of Medications to Treat Substance use Disorders

Danish Agency for Science Technology and Innovation

The United Arab Emirates University Program for Advanced Research

Neurobiology of Motivated Behavior Study Section

California Tobacco-related Disease Research Program

National Institute on Drug Abuse Special Emphasis Panel
Nicotinic Immune Modulation in the Presence of HIV-1 Infection

Chilean National Science and Technology Commission

Program Evaluation of NIH Peer Review Processes: The Role of Anonymization

United Kingdom Medical Research Council

Editorial Review Boards

Frontiers in Neuroscience

CNS & Neurological Disorders-Drug Targets

Journal of Addiction Research & Therapy

Frontiers in Neuropharmacology

Journal reviews:

Archives of Biochemistry and Biophysics

ASSAY and Drug Development Technologies

BBA Biomembranes

BBA - Proteins and Proteomics

Biochemical Pharmacology

Biochemistry

Biological Psychiatry

Bioorganic Medicinal Chemistry letters

Biophysical Journal

Biotechnology Journal

British Journal of Pharmacology

Cell Calcium

Circulation Research

Current Pharmaceutical Design

Expert Opinion on Drug Discovery

FASEB Journal

Febs Letters

Journal of General Physiology

Journal of Leukocyte Biology

Journal of Neurochemistry

Journal of Neuropharmacology

Journal of Neurophysiology

Journal of Neuroscience

Journal of Neuroscience Research

Journal of Pharmacology and Experimental Therapeutics

Journal of Physiology

Life Sciences

Medicinal Research Reviews

Molecular Biology of the Cell

Molecular Pharmacology

Neuron

Neuropeptides

Neuropharmacology

Neuroscience Letters

Neuroscience Research

The Open Neuroscience Journal

PLoS ONE

Proceedings of the National Academy of Science

INVITED PRESENTATIONS AND SEMINARS:

1987

University of California at Davis

Tulane University, New Orleans

1990

University of New York at Buffalo, Department of Pharmacology
Cornell University, Ithaca

1991

University of New York at Buffalo, College of Pharmacy
University College, London, England
Max Plank Institute for Experimental Medicine, Gottingen, FRG
Cold Spring Harbor Laboratory
Case Western Reserve, Cleveland
New York University

1992

Loyola University, Chicago
Ohio University
Meharry Medical College, Nashville
University of Rochester, Rochester N.Y.
Cornell University, Ithaca, N.Y.
Emory University, Atlanta, Georgia
Dartmouth College, Dartmouth, New Hampshire
University of Florida, Department of Pharmacology

1993

University of Indiana, Indianapolis, Indiana
University of Massachusetts, College of Medicine, Worcester, MA
University of Florida, Department of Ophthalmology

1994

Institute Alfred Fessard, CNRS, Paris, France
Pasteur Institute, Paris, France
CNRS, Montpellier, France

University Hospital, Zurich, Switzerland

Suncoast Workshop, Amelia Island, Florida

1995

University of Florida, Whitney Laboratory

Springfield Alzheimer Conference, Springfield Illinois

University of Florida, Department of Pharmacodynamics

R. J. Reynolds Co., Winston -Salem, North Carolina

1996

University of South Florida, Department of Pharmacology

Osaka International Alzheimer's Conference, Osaka Japan

1997

University of Florida, Department of Neuroscience

1998

University of Aarhus

July 16, 1998 Aarhus, Denmark

Title: Physiology, pharmacology and biophysics of neuronal nicotinic acetylcholine receptors

1999

University of Kentucky, College of Pharmacy

September 16, 1999, Lexington Kentucky

Title: Activation and inhibition of neuronal nicotinic acetylcholine receptor function

Conference on Neuronal Nicotinic Acetylcholine Receptors

October 2, 1999 Venice Italy

Title: $\alpha 7$ -selective agonists and modes of $\alpha 7$ receptor activation

University of South Florida, Department of Psychiatry

Nov. 9, 1999, Tampa Florida

Title: Inhibition of neuronal nicotinic acetylcholine receptor function by antagonists and agonists

2000

Astra- Zeneca Pharmaceuticals,

May 15, 2000, Worcester, MA

Title: $\alpha 7$ -selective agonists and modes of $\alpha 7$ receptor activation

6th Annual Duke Nicotine Research Conference

November 1, 2000, Durham, NC

Title: Nicotinic receptor desensitization
(declined due to hospitalization)

Benzon Symposium

August 14, 2000, Copenhagen, Denmark

Title: Kinetic analysis of $\alpha 7$ nAChR fast desensitization in acutely dissociated hypothalamic neurons: implications for therapeutics

2001

Memory Pharmaceuticals

February 16, 2001, Montvale, NJ

Title: $\alpha 7$ -selective agonists and modes of $\alpha 7$ receptor activation

University of Alabama Department of Neurobiology

June 7, 2001, Birmingham, Alabama

Title: The therapeutic targeting of $\alpha 7$ nicotinic acetylcholine receptors

2002

University of Rome

July 10, 2002, Rome, Italy

Title: Properties of neuronal nicotinic $\alpha 7$ receptors: implications for therapeutics

Strategic Research Institute conference: Ion Channels in Drug Discovery & Development

Sept 18, 2002, Princeton New Jersey

Title: The therapeutic targeting of $\alpha 7$ nicotinic acetylcholine receptors

Memory Pharmaceuticals

April 12, 2002, Montvale, NJ

Title: The structural basis for drug selectivity between human and rat nicotinic $\alpha 7$ receptors

2003

NIDA conference on nicotine dependence

June 13, 2003, Bal Harbor , Florida

Title: $\alpha 7$ -selective agonists and the structural basis for drug selectivity
between human and rat nicotinic $\alpha 7$ receptors

Critical Therapeutics

July 15, 2003, Boston, MA

Title: The Therapeutic Targeting of $\alpha 7$ Nicotinic Acetylcholine Receptors

IBC's 2nd International Ion Channel Drug Target Conference,

October 21, 2003, Boston, MA

Title: The Therapeutic Targeting of $\alpha 7$ Nicotinic Acetylcholine Receptors

Department of Biochemistry, University of Florida, College of Medicine

October 10, 2003, Gainesville, FL

Title: Neuronal nicotinic $\alpha 7$ receptors

University of Puerto Rico Guest lecture in the Neuroscience program

November 23, 2003, San Juan Puerto Rico

Title: Acetylcholine Receptors

University of Puerto Rico Guest lecture in the SCORE program

November 23, 2003, San Juan Puerto Rico

Title: The Therapeutic Targeting of $\alpha 7$ Nicotinic Acetylcholine Receptors

2004

Critical Therapeutics

May 20, 2004, Boston, MA

Title: The structural basis for $\alpha 7$ -selective drugs

University of Kentucky, College of Pharmacy

June 23, 2004, Lexington, KY

Title: The pharmacology and physiology of neuronal nicotinic
acetylcholine receptors

University of Florida, Department of Chemistry

December 10, 2004, Gainesville, FL

Title: Structural basis for nicotinic drug selectivity

2005

University of Kentucky, College of Pharmacy

April 13, 2005, Lexington, KY

Title: Molecular pharmacology of $\alpha 7$ -type nicotinic acetylcholine receptors

Targacept

April 21, 2005, Winston Salem NC

Title: $\alpha 7$ -type nicotinic acetylcholine receptors a therapeutic target for mind and body

Whitney Laboratory University of Florida,

May 19, 2005, Marineland, FL

Title: Molecular pharmacology of $\alpha 7$ -type nicotinic acetylcholine receptors

Molecular Devices: Web seminar

September 29, 2005

<http://www.moleculardevices.com/index.html>

Title: Drug development with OpusXpress

2006

University of North Texas, College of Medicine

February 6, 2006, Forth Worth, Texas

Title: Molecular pharmacology of $\alpha 7$ -type nicotinic acetylcholine receptors

Institut De Recherches Internationales Servier

April 14, 2006, Paris, France

Title: A Molecular Perspective on the Therapeutic Targeting of Brian nicotinic Receptors

Duke University Medical Center, Department of Pharmacology

June 5, 2006 Durham, NC

Title: Molecular perspectives on alpha7-type neuronal nicotinic acetylcholine receptors

Barrow Neurological Institute

June 20, 2006 Phoenix, Arizona

Title: Molecular perspectives on neuronal nicotinic acetylcholine receptors

Human Memory and Aging Colloquium

September 22, 2006 VA Hospital, Gainesville FL

Title: Brain nicotine receptors and age-related memory loss

University of Georgia, Department of Physiology and Pharmacology

November 7, 2006 Athens, GA

Title: Molecular perspectives on brain nicotinic acetylcholine receptors

2007

Lundbeck Pharmaceuticals

February 22, 2007 Copenhagen, Denmark

Title: Molecular perspectives on the therapeutic targeting of nicotinic acetylcholine receptors.

Ohio State University, Department of Neuroscience

April 2, 2007 Columbus, OH

Title: Molecular perspectives on brain nicotinic acetylcholine receptors

NIDA Satellite meeting to CPDD, Building Translational Research in Medication Development in Academia.

Saturday June 16, 2007, Quebec City, Quebec, Canada

Title: Wild type, mutant and chimeric nicotinic acetylcholine receptors: Using pieces to solve a puzzle

2008

Department of Neuroscience, University of Florida, College of Medicine

April 9, 2008, Gainesville, FL

Title: Molecular perspectives on neuronal nicotinic receptors

Nicotinic Acetylcholine Receptors 2008, Wellcome Trust Conference, Hinxton, England. April 24th 2008

Title: Effective opening of nicotinic acetylcholine receptors with single agonist binding sites: implications for the therapeutic targeting of homomeric $\alpha 7$ nAChR.

nAChR Workshop, Bath University, Bath England

April 28, 2008

Title: Turning $\alpha 7$ on and off.

Strathclyde Institute of Pharmacy and Biomedical Sciences

April 28, 2008

Title: Turning $\alpha 7$ on and off in the Brain: Pharmacology and Therapeutic approaches.

Department of Molecular Medicine, Cornell University, Ithaca NY

May 23, 2008

Title: Therapeutic targeting of homomeric $\alpha 7$ nAChR and the significance of the effective opening of nicotinic acetylcholine receptors with single agonist binding sites.

Department of Structural and Molecular Biology, University of Puerto Rico, San Juan Puerto Rico

May 28, 2008

Title: Turning $\alpha 7$ on and off in the Brain: Pharmacology and Therapeutic approaches.

XIII International Symposium on Cholinergic Mechanisms: Neuronal and Non-Neuronal Cholinergic Systems: Molecular and Translational Significance Foz do Iguaçu, Brazil

August 16-20, 2008

Title: Therapeutic targeting of $\alpha 7$ receptors.

2009

The Institute of Behavioral Genetics, University of Colorado

March 13, 2009, Boulder, Colorado

Title: The fertile frog oocyte and what it can tell us about the effects of nicotine in the mammalian brain

Department of Structural and Molecular Biology, University of Puerto Rico, San Juan, Puerto Rico

May 19, 2009

Title: The therapeutic targeting of nicotinic receptors in the brain: Lesson 1, unlearning what we know about the neuromuscular junction

NIDA Satellite meeting to CPDD, Nicotinic Cholinergic Mechanisms in Drug Dependence: Receptor Subtypes and Ligands.

Saturday June 25, 2009, Reno, Nevada

Title: Modulation of nicotinic receptor functional tone by therapeutic agents and endogenous factors

Institut De Recherches Internationales Servier

July 7, 2009, Paris, France

Title: Multiple factors associated with the targeting of nicotinic alpha7 AChR for therapeutic effects include potency, efficacy, selectivity and the induction of stable desensitization by candidate drugs

Center for Brain Research, Division of Biochemistry and Molecular Biology Medical University of Vienna

July 14, 2009, Vienna, Austria

Title: The therapeutic targeting of alpha7 nAChR: is it only about ion channel activation?

Mini-symposium on nAChR function in non-neuronal cells

July 17, 2009, Amsterdam, Netherlands

Title: Multiple factors associated with the targeting of nicotinic alpha7 AChR for therapeutic effects include potency, efficacy, selectivity and the induction of stable desensitization by candidate drugs

Department of Neuroscience, McKnight Brain Institute University of Florida

September 23, 2009, Gainesville, Florida

Title: The therapeutic targeting of alpha7 nAChR: is it only about ion channel activation?

Satellite Symposium Society of Neuroscience 2009 meeting

Nicotinic Acetylcholine Receptors as Therapeutic Targets:

Emerging Frontiers in Basic Research & Clinical Science

October 14-17, 2009, Chicago Illinois

Chair, Session one, nAChR: Concepts and Overview.

Center for Neuropsychological Studies, Veteran's Administration Hospital
November 6, 2009, Gainesville, Florida

Title: The molecular substrates for nicotine's effects in the brain and the development of potential novel therapeutics for neurodegenerative and neuropsychiatric disorders

2010

Institut De Recherches Internationales Servier

February 25, 2010, Paris, France

Title: Therapeutic utility of nicotinic partial agonists as selective regulators of heteromeric and homomeric nAChR subtypes.

FASEB/ASPET Symposium, When the smoke clears

April 25, 2010, Anaheim, CA

Title: Electrophysiological perspectives on the therapeutic use of nicotinic partial agonists

Computational Neurobiology Laboratory, Salk Institute

April 26, 2010, La Jolla, CA

Title: The curious character of $\alpha 7$ nAChR

The Whitney Laboratory for Marine Bioscience University of Florida

October 29, 2010 St. Augustine, FL

Title: Multiple signaling modes of $\alpha 7$ nAChR

20th Neuropharmacology conference: High resolution neuropharmacology:

Structure changes the paradigm

November 11, 2010, San Diego, CA

Title: Evaluating alpha7 nicotinic receptor function with allosteric modulators and tethered agonists

Texas Tech University College of Medicine, Department of Pharmacology & Neuroscience

December 7, 2010 St. Lubbock Texas

Title: Molecular perspectives on nicotinic acetylcholine receptor activation and desensitization.

2011

Nicotinic Acetylcholine Receptors 2011, Wellcome Trust Conference, Hinxton, England. May 21st 2011

Title: Molecular perspectives on the activation, desensitization and modulation of nAChR.

Nicotinic Acetylcholine Receptors 2011, Wellcome Trust Conference, Hinxton, England. May 20th 2011

Chair, Session nine.

University College, Research Department of Neuroscience, May 23, 2011, London, England

Title: Molecular perspectives on the activation, desensitization and modulation of nAChR: Agonist binding and function.

Lundbeck Pharmaceuticals

May 26, 2011 Copenhagen, Denmark

Title: Molecular perspectives on the activation, desensitization and modulation of nAChR: Relevance to therapeutic targeting.

University of Hawaii at Hilo, College of Pharmacy

September 19, 2011 Hilo, Hawaii

Title: Nicotine receptors of the brain: mysteries, hypotheses and a few answers.

Satellite Symposium Society of Neuroscience 2011 meeting

Nicotinic Acetylcholine Receptors as Therapeutic Targets:

Emerging Frontiers in Basic Research & Clinical Science

October 14-17, 2009, Chicago Illinois

Chair, Session two, nAChR: Recent Progress in Basic Research.

2012

Baylor University, College of Medicine, Department of Neuroscience.

March 12, 2012

Title: Positive allosteric modulation of alpha7 nAChR: a hot topic or too much of a good thing?

Workshop at 2012 meeting of the Society for Research on Nicotine and Tobacco: Cholinergic Regulation of Addiction and Disease: Understanding Mechanisms and Identifying Novel Therapeutic Targets. March 13 2012, Houston Texas.

Title: Tuning the properties of nicotinic partial agonists for the treatment of depression or nicotine addiction

Neurosciences & Neurological Disorders Seminar Series, University of Toledo Dept. of Neurosciences, April 11, 2012

Title: Improved molecular perspectives on the therapeutic targeting of neuronal nicotinic acetylcholine receptors provided by positive allosteric modulators.

Ohio State University College of Medicine, Department of Neuroscience
April 13, 2012

Title: Improved molecular perspectives on the therapeutic targeting of neuronal nicotinic acetylcholine receptors provided by positive allosteric modulators.

Asmacure LLC

June 22, 2012, Quebec City, Canada

Title: Molecular perspectives on nicotinic acetylcholine receptors: Ion currents and signal transduction

Institut De Recherches Internationales Servier

August 31, 2012, Paris, France

Title: Nicotinic PAMs, antagonists and signal transduction

Virginia Commonwealth University College of Medicine, Department of Pharmacology October 23, 2012

Title: Elucidating the curious character of alpha7 nicotinic acetylcholine receptors in neuronal and non-neuronal cells.

2013

Purdue University West Lafayette, IN

Department of Medicinal Chem. & Molecular Pharmacology

March 28, 2013

Title: The molecular pharmacology of Alpha7 nAChR revealed by allosteric modulators

Northeastern University, Boston, MA

Department of Pharmaceutical Sciences

April 4, 2013

Title: The molecular pharmacology of Alpha7 nAChR revealed by allosteric modulators

Hebrew University - Hadassah Medical School

Department of Medical Neurobiology

May 7, 2013

Title: The molecular pharmacology of Alpha7 nAChR revealed by allosteric modulators

2014

Yale University New Haven, CT

Biological Sciences Training Program

March 24, 2014

Title: Leaving the neuromuscular junction behind: insights into alpha7 nicotinic acetylcholine receptors, potential therapeutic targets for diverse indications from arthritis to addiction to Alzheimer's disease.

Neuroscience Institute, Milan Italy.

July 21st 2014

Title: Insights into alpha7 nicotinic acetylcholine receptors: leaving the neuromuscular junction behind.

Nicotinic Acetylcholine Receptors 2014, Wellcome Trust Conference, Cambridge, England.

July 23st 2014

Title: The coupling of orthosteric and allosteric activation in nicotinic alpha7 receptors.

2015

Merck Sharp & Dohme Corp, Neuroscience Research Group, West Point, Pennsylvania.

April 21, 2015

Title: The targeting of alpha7 nicotinic acetylcholine receptors for therapeutic effects.

University of Florida, Department of Pharmacology and Therapeutics, Gainesville, FL

November 18, 2015

Title: Alpha7 nicotinic acetylcholine receptors: curiouser and curiouser.

2016

International Conference on Betel Quid and Areca Nut, Kuala Lumpur,
Malaysia, *Plenary Speaker*

April 27, 2016

Title: Properties of arecoline suggest links between betel quid use and
nicotine addiction

XV International Symposium on Cholinergic Mechanisms

Marseille, France, *Invited speaker*

October 16-20, 2016

Title: Paradoxical interactions of alpha7 nAChR silent agonists and
allosteric modulators; equilibration between desensitized states and
persistent currents.

2017

Society for Research on Nicotine and Tobacco Webinar on Betel Quid and
Areca Nut: State of Knowledge and Parallels with Tobacco-Related Issues.

Invited speaker

January 12, 2017

Title: Cracking the betel nut: links between betel quid use and nicotine
addiction.

Nicotinic Acetylcholine Receptors 2017 Meeting, Chania, Crete, 7-11 May
2017

Invited speaker

Title: Orthosteric, allosteric, and metabotropic activity of alpha7 nAChR

Nicotinic Acetylcholine Receptors 2017 Meeting, Chania, Crete, 7-11 May
2017

Chair, Closing Session.

University of Florida Center for Addiction Research and Education

Invited speaker

September 20, 2017

Title: Cracking the betel nut: addressing an orphan addiction.

2018

University of Medicine, Yangon, Myanmar

Invited speaker

January 24, 2018

Title: New Insights into Betel quid addiction

Parami Institute of Liberal Arts & Sciences, Yangon, Myanmar

Invited speaker

January 24, 2018

Title: Drugs, Addiction, and Disease

Symposium on Concerns on Areca Nut, Healis Institute for Public Health

Invited speaker

February 1, 2018

Title: Neurological Aspects of Areca nut

Lady Hardinge Medical college and the Indian Dental Association

Symposium: Oral, Potentially Malignant lesions and Risk Factors

Invited speaker

February 4, 2018

Title: New Insights into Betel quid addiction

2019

SRNT 2019 Meeting San Francisco, California

Symposium: Smokeless Tobacco And Areca Nut: Global Diversity Of
Products And Parallels In Associated Health Risks

Invited speaker

February 24, 2019

Title: The Traditional Use Of Betel Nut (Areca) Promotes Smokeless
Tobacco Addiction In South Asia And Associated Health Risks, And
A Hypothesis For A Novel Cessation Therapy

Sapienza University Di Roma, Dipartimento di Fisiologia e Farmacologia
"Vittorio Erspamer"

Invited speaker

May 24, 2019

Title: Orthosteric and allosteric activation of nicotinic acetylcholine
receptors

Virginia Commonwealth University College of Medicine, Department of
Pharmacology

Invited speaker

November 12, 2019

Title: Betel nut, an orphan addiction and world health problem.

XVI International Symposium on Cholinergic Mechanisms

2nd Misrahi Symposium On Neurobiology

Weizmann Institute of Science, in Rehovot, Israel.

Invited speaker

December 8-12, 2019

Title: Allosteric activation of nicotinic acetylcholine receptors

PUBLICATIONS:

Major creative works (non-academic):

Roger L. Papke 2010, 2011, 2012, 2014. *Handfuls of History Volume 1*, a book chronicling the history of firearm development. Produced on DVD and self published at: www.handfulsofhistory.com

Roger L. Papke 2017. *Handfuls of History Volume 2: Cutting edges*, Adventures in histories and cultures from the descriptions and details of edged weapons. In production on DVD to be self published at: www.handfulsofhistory.com

Minor creative works (non-academic):

Roger L. Papke 2017. *Properly Greeced*. A memoir of motorcycles in Greece in 1986. Published in *Classic Bike Magazine* November 2017 pages 28-19.

Scientific Book Chapters, Technical Notes, and Reviews:

Roger L. Papke* and Robert E. Oswald. 1986. Effects of allosteric ligands on the gating of single channel currents in bc3h-1 cells. N.A.T.O. *Advanced Research Workshop Mechanism of Action of The Nicotinic Acetylcholine Receptor*, Santorini, Greece. NATO ASI Series Vol. H3 Ed. A. Maelicke Springer-Verlag, Berlin.

S.Heinemann, J. Boulter, E. Deneris, J. Connelly, R. Duvoisin, R. Papke, and J. Patrick. 1989. The brain nicotinic acetylcholine receptor gene family. *Cell and Molecular Biology of Neuroplasticity in Aging and Alzheimer's Disease, Conference Proceedings*. Bethesda, Maryland, May 1-3, 1989.

S. Heinemann, J. Boulter, J. Connelly, E. Deneris, R. Duvoisin, M. Hartley, I. Hermans-Borgmeyer, M. Hollmann, A. O'Shea-Greenfield, R. Papke, S. Rogers, and J. Patrick. 1989. The brain nicotinic receptor genes. *Molecular Approaches to Drug Abuse Research. N.I.D.A. Conference Proceedings*. Bethesda, Maryland, August 24-25, 1989.

S. Heinemann, J. Boulter, J. Connelly, E. Deneris, R. Duvoisin, M. Hartley, I. Hermans-Borgmeyer, M. Hollmann, A. O'Shea-Greenfield, R. Papke, S. Rogers, and J. Patrick. 1989. The nicotinic receptor genes. *Hoechst-Roussel Pharmaceuticals Research Seminar. Conference Proceedings*. Hershey Pennsylvania, October 25, 1989.

Roger L. Papke. 1993. The kinetic properties of neuronal nicotinic receptors: Genetic basis of functional diversity. *Progress in Neurobiology* **41**:509-531.

Roger L. Papke*, Christopher M. de Fiebre, William Kem, and Edwin M. Meyer. 1994. The subunit specific effects of novel anabaseine-derived nicotinic agents. Proceedings of the Third International Springfield Alzheimer Symposium. Springfield Illinois May 11-15 1994. Editors: E. Giacobini and R. Becker. Birkhauser Boston publishers.

R.H. Lenox, R.K. McNamara, R.L. Papke and H. Manji, 1998. Neurobiology of lithium: an update. *Journal of Clinical Psychiatry*, **58**(supplement 6): 37-47.

Anatolii Y. Kabakov and Roger L. Papke*, 1998. Ultra fast solution applications for prolonged gap-free recordings: Controlling a Burleigh piezo-electric positioner with Clampex7. *Axobits* Jan. 1998 **24**:6-9.

Michael M. Francis, and Roger L. Papke*, 2000. The functional diversity of nicotinic receptors in the nervous system: perspectives on receptor subtypes and receptor specialization *Handbook of Experimental Pharmacology* **144**: 301-336.

Roger L. Papke, 1999. Single channel analysis in pClamp 8. *Axobits* October. 1999 **27**:7-12.

Roger L. Papke, 1999. Neuronal Nicotinic Receptors: From Structure to Therapeutics. Meeting report. *Investigational Drugs, weekly highlights*. **48**:37-41

Roger L. Papke* and Julia K. Porter Papke. 2002. The Use of Net-Charge Analysis for the Study of Ion Channel Pharmacology. *Axobits* November 2002 **36**:6-9

Roger L. Papke and Cathy Smith-Maxwell, 2009. High-throughput electrophysiology with *Xenopus* oocytes. *Combinatorial Chemistry & High Throughput Screening*. **12(1)**:38-50

Shafiqur Rahman, Gretchen Y. López-Hernández, William A. Corrigan, and Roger L. Papke, 2008. Neuronal Nicotinic Receptors as Brain Targets for Pharmacotherapy of Drug Addiction. *CNS & Neurological Disorders - Drug Targets*, **7**: 422-441.

Marjolein A. van Maanen, Roger L. Papke, Jessica Koepke, Lisette Bevaart, Roger Clark, Diana Lamppu, Margriet J. Vervoordeldonk, Gregory J. LaRosa, and Paul P. Tak. Therapeutic effect of stimulating the nicotinic acetylcholine receptor in the collagen-induced model of rheumatoid arthritis: a role for ion channel activity and penetration of the central nervous system. Chapter 5 77-97 in *Cholinergic Nervous System as Therapeutic Approach for the treatment of arthritis*, Ph. D. Thesis Marjolein A. van Maanen, 2009, University of Amsterdam, The Netherlands.

Roger L. Papke* and Clare Stokes. 2010. Working with OpusXpress: methods for high volume oocyte experiments, in "Xenopus Oocytes as an Experimental System", special issue. *Methods*. 51(1):121-33.

Roger L. Papke. 2010. $\alpha 4\beta 2$ nicotinic acetylcholine receptors, willing if able. Commentary in *The British Journal of Pharmacology*. **160(8)**:1903-5.

Roger L. Papke. Neuroscience in the 21st Century, Chapter 1: Water, ions, membranes, pumps, and transporters. Donald Plaff editor. Published by Rockefeller University Press.

Dustin K. Williams, Jingyi Wang, and Roger L. Papke*. 2011. Positive allosteric modulators as an approach to nicotinic acetylcholine receptor-targeted therapeutics: advantages and limitations. *Biochemical Pharmacology*, **82(8)**:915-30.

Roger L. Papke*, Marina R. Picciotto 2012. Nicotine Dependence and Depression, What is the Future for Therapeutics? *Journal of Addiction Research and Therapy*. **2(3)**:1000e1105.

Darlene H. Brunzell, J. Michael McIntosh and Roger L. Papke. 2014. Diverse strategies targeting $\alpha 7$ homomeric and $\alpha 6\beta 2^*$ heteromeric nicotinic acetylcholine receptors for smoking cessation. *Annals of the New York Academy of Sciences*, **1327**:27-45.

Roger L. Papke*. 2014. Merging old and new perspectives on nicotinic acetylcholine receptors. *Biochemical Pharmacology*, **89(1)**:1-11.

" This is a captivating review. It is the first time in a many-year career that I have looked at a review article with the intent of a preliminary skim and instead found myself drawn into a complete and detailed read. Totally absorbing! An excellent story. Historical perspective is provided in an engaging manner, current findings are crisply and clearly presented, and promising future directions are indicated, along with some intriguing nel ideas. I can think of no changes to make. One can always suggest more or slightly altered takes but the current account is superb."
Anonymous reviewer for Biochemical Pharmacology.

Clare Stokes, Millet Treinin, and Roger L. Papke*. 2015. Looking below the surface of nicotinic acetylcholine receptors. *Trends in Pharmacological Sciences*, **36(8)**:514-23

Melissa Little and Roger L. Papke*. 2015. Betel, the orphan addiction. *Journal of Addiction Research and Therapy*, **6(3)**:e130.

Millet Treinin, Roger L. Papke, Eran Nizri, Yael Ben-David, Tehila Mizrachi and Talma Brenner. 2016. Role of the $\alpha 7$ Nicotinic Acetylcholine Receptor and RIC-3 in the Cholinergic Anti-inflammatory Pathway. *Central Nervous System Agents in Medicinal Chemistry*, 2016. **17(2)**:90-99.

Deniz Bagdas, Mine S. Gurun, Pamela Flood, Roger L. Papke, and M. Imad Damaj. 2017. New Insights on Neuronal Nicotinic Acetylcholine Receptors as Targets for Pain and Inflammation: A Focus on $\alpha 7$ nAChRs. 2018. *Current Neuropharmacology*. **16(4)**:415-425.

Nicole Horenstein, and Roger L. Papke. 2017. Anti-inflammatory silent agonists. *ACS Medicinal Chemistry Letters*. **8(10)**:989-991.

Roger L. Papke. 2018. Nicotinic Acetylcholine Receptors, chapter in *The Oxford Handbook of Neuronal Ion Channels*, edited by Arin Bhattacharjee, Oxford University Press. Online Publication Date: Mar 2018. **Expected publication date: 2019**. (<https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780190669164.001.0001/oxfordhb-9780190669164-e-18>)

Roger L. Papke, Dorothy K. Hatsukami, and Thaddeus A. Herzog. Betel quid, health, and addiction. Commentary in a special issue of *Substance Use and Misuse* on betel quid. *in press*.

Peer-reviewed Research Articles:

Roger L. Papke, Patrick W. Concannon, Hugh F. Travis and William Hansel. 1980. Control of luteal function and implantation in the mink by prolactin. *Journal of Animal Science* **50(6)**:1102-1107.

Roger L. Papke*, Tom R. Podleski and Robert Oswald. 1986. Effects of pineal factors on the action potentials of sympathetic neurons. *Cellular and Molecular Neurobiology* **6(4)**:381-396.

Roger L. Papke*, Glenn Millhauser, Zorba Lieberman and Robert Oswald. 1988. Relationships of agonist properties to the activation kinetics of nicotinic acetylcholine receptors. *Biophysical Journal* **53(1)**:1-10.

Robert E. Oswald, Roger L. Papke and Ronald J. Lukas. 1989. Characterization of nicotinic acetylcholine receptor channels of the TE671 human medulloblastoma cell line. *Neuroscience letters*. **96**:207-212.

Roger L. Papke* and Robert E. Oswald. 1989. Mechanisms of noncompetitive inhibition of acetylcholine-induced single channel currents. *Journal of General Physiology* **93**:785-811.

Roger L. Papke*, Jim Boulter, Jim Patrick, and Steve Heinemann. 1989. Single channel currents of rat neuronal nicotinic acetylcholine receptors expressed in *Xenopus laevis* oocytes. *Neuron* **3(5)**:589-596.

Scott W. Rogers, Lorise C. Gahring, Roger L. Papke, and Stephen Heinemann. 1991. Identification of cultured cells expressing ligand-gated cationic channels. *Protein Expression and Purification* **2**:108-116.

Roger L. Papke*, and Steve F. Heinemann. 1991. The role of the $\beta 4$ subunit in determining the kinetic properties of rat neuronal nicotinic acetylcholine $\alpha 3$ receptors. *Journal of Physiology, London* **440**:95-112.

Roger L. Papke*, Robert M. Duvoisin, and Stephen F. Heinemann. 1993. The amino terminal half of the nicotinic β subunit extracellular domain regulates the kinetics of inhibition by neuronal-bungarotoxin. *Proceedings of the Royal Society, (London), Series B* **252**:141-147.

Roger L. Papke*, and Steve F. Heinemann. 1994. The partial agonist properties of cytosine on neuronal nicotinic receptors containing the β 2 subunit. *Molecular Pharmacology* **268**:718-726.

Roger L. Papke*, A. Grey Craig, and Steve F. Heinemann. 1994. Inhibition of nicotinic acetylcholine receptors by bis (2, 2, 6, 6, - tetramethyl-4-piperidinyl) sebacate (Tinuvin[®] 770), an additive to medical plastics. *Journal of Pharmacology and Experimental Therapeutics* **268**:718-726.

Bruce E. Hunter, Christopher M. de Fiebre, Roger L. Papke, William R. Kem, and Edwin M. Meyer. 1994. A novel nicotinic agonist facilitates induction of long-term potentiation in the rat hippocampus. *Neuroscience Letters* **168**:130-134.

Christopher M. de Fiebre, Edwin M. Meyer, Jeffrey C. Henry, Samuel I. Muraskin, William R. Kem and Roger L. Papke*. 1995. Characterization of a series of anabaseine-derived compounds reveals that the 3-(4)-dimethylaminocinnamylidene derivative (DMAC) is a selective agonist at neuronal nicotinic α 7/[¹²⁵I]a-bungarotoxin receptor subtypes. *Molecular Pharmacology* **47**:164-171.

D.H. Feldman, J.S. Thinschmidt, A.L. Peel, R. L. Papke, and P.J. Reier. 1996. Differentiation of ionic currents in CNS progenitor cells: Dependence upon substrate attachment and epidermal growth factor. *Experimental Neurology* **140(2)**:206-17.

Michael M. Francis and Roger L. Papke*. 1996. Muscle-type nicotinic acetylcholine receptor delta subunit determines sensitivity to noncompetitive inhibitors while gamma subunit regulates divalent permeability. *Neuropharmacology* **35**:1547-1556.

R. L. Papke*, M. Bencherif, and P. Lippiello. 1996. An evaluation of neuronal nicotinic acetylcholine receptor activation by quaternary nitrogen compounds indicates that choline is selective for the α 7 subtype. *Neuroscience Letters* **213**:201-204.

R. L. Papke*, J. S. Thinschmidt, B. A. Moulton, E. M. Meyer, and A. Poirier. 1997. Activation and inhibition of rat neuronal nicotinic receptors by ABT-418. *British Journal of Pharmacology* **120**:429-438.

William R. Kem, Vladimir M. Mahnir, Roger L. Papke and Christopher J. Lingle. 1997. Anabaseine is a potent agonist upon muscle and neuronal alpha-bungarotoxin sensitive nicotinic receptors. *Journal of Pharmacology and Experimental Therapeutics*, **283**:979-992.

- E. M. Meyer, E. T. Tay, R. L. Papke, C. Meyers, G. Huang, and C. M. de Fiebre. 1997. Effects of 3-[2,4-dimethoxybenzylidene]anabaseine (DMXB) on rat nicotinic receptors and memory-related behaviors. *Brain Research*, **768(1-2)**:49-56.
- Anatolii Y. Kabakov, Nikolas B. Karkanias, Robert H. Lenox, and Roger L. Papke*. 1998 Synapse specific accumulation of lithium in intracellular microdomains: A model for uncoupling coincidence detection in the brain. *Synapse*, **28**:271-279
- M. M. Francis, K. Il Choi, B. A. Horenstein and R. L. Papke*. 1998 Sensitivity to voltage-independent inhibition determined by pore-lining region of ACh receptor. *Biophysical Journal*, **74**:2306-2317
- Edwin M. Meyer, Ee Tein Tay, John A. Zoltewicz, Roger L. Papke, Craig Meyers, Mike King, and Christopher M. de Fiebre. 1998 Neuroprotective and memory-related actions of novel $\alpha 7$ nicotinic agents with different mixed agonist/antagonist properties. *Journal of Pharmacology and Experimental Therapeutics* **284**:1026-1032
- Edwin Meyer, Alexander Kuryatov, Volodymyr Gerzanich, Jon Lindstrom and Roger L. Papke*. 1998. Analysis of 40H-GTS-21 Selectivity and Activity at Human and Rat $\alpha 7$ Nicotinic Receptors. *Journal of Pharmacology and Experimental Therapeutics*, **287(3)**:918-25
- Jose R. Gomez, Nikolas B. Karkanias, Robert H. Lenox, and Roger L. Papke*. 1998. Lithium Homeostasis In *Xenopus* Oocytes: Implications For The Study Of Signal Transduction. *Life Sciences* **63(19)**:1715-1724.
- Roger L. Papke*, and Jeffrey S. Thinschmidt. 1998. The Correction of Alpha7 Nicotinic Acetylcholine Receptor Concentration-Response Relationships in *Xenopus* Oocytes. *Neuroscience Letters* **256(3)**:163-166.
- Yangxin Li, Roger L. Papke, Yun-Ju He, Bill Millard, and Edwin M. Meyer. 1999. Characterization of the neuroprotective and toxic effects of $\alpha 7$ nicotinic receptor activation in PC12 cells. *Brain Research*, **830(2)**:218-25.
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