Jean A. King, Ph.D.

Department of Psychiatry
University of Massachusetts Medical School
Center for Comparative NeuroImaging
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Education

<u>Education</u>	
Post-Doctoral Fellowship, American Association of University Women Fellow Department of Physiology, University of Massachusetts Medical Center, Worcester, MA	1993-1994
Post-Doctoral Fellowship Department of Psychology/Crawford Long Hospital, Emory University, Atlanta, GA	1989-1993
Ph.D., (Biology/Neurophysiology), New York University, New York, NY Thesis Title: Maturational Effects of ACTH and Nicotine on the Developing Rat Model and Neuroendocrine Systems (Distinguished Merit Dissertation Award Advisor: Drs. Fleur L. Strand and Efrain Azmitia	1983-1988 d)
M.S., (Cell Biology), City University of New York, New York, NY	1980-1982
B.S., (Biology, magna cum laude), St. Francis College, Brooklyn, NY	1975-1979
Academic Appointments	
Research Professor (Adjunct) Department of Biomedical Engineering Worcester Polytechnic Institute (WPI), Worcester, MA	2011-present
Professor Department of Psychiatry University of Massachusetts Medical School, Worcester, MA	2007-present
Associate Professor Department of Psychiatry University of Massachusetts Medical School, Worcester, MA	2000-2007
Assistant Professor Department of Psychiatry University of Massachusetts Medical School, Worcester, MA	1994-2000
Lecturer in Physiology and Neurobiology Spelman College, Atlanta, GA	1989-1992

Teaching Assistant 1984-1988

Department of Biology

New York University, New York, NY

Adjunct Lecturer 1980-1982

Department of Biology

Hunter College (New York, NY)

Lab Instructor 1978-1979

St. Francis College, Brooklyn, NY

Administrative Appointments

Vice-Chair of Research 2007-present

Department of Psychiatry

University of Massachusetts Medical School, Worcester, MA

Scientific and administrative oversight of basic research in the Department of Psychiatry, including responsibility for increasing the national visibility of departmental research, chairing recruitment efforts for new research/clinical faculty, and creating clinical and translational research infrastructure both intra- and inter-departmentally. Responsibilities include oversight of strategic planning for both the Brudnick Neuropsychiatric Research Institute (BNRI) and the Center for Comparative Neuroimaging (CCNI).

Director, Center for Comparative NeuroImaging

2007-present

Department of Psychiatry

University of Massachusetts Medical School, Worcester, MA

Scientific and fiscal management of the CCNI, in support of the Center's educational and research mission to foster student training and innovative translational research using multimodal neuroimaging to better understand brain disorders and potential treatment options.

Director, Psychiatry Career Development and Research Office Department of Psychiatry

University of Massachusetts Medical School, Worcester, MA

2007-present

Strategic oversight for a unique departmentally based initiative to foster career productivity and satisfaction including both individual and team mentoring, as well as learning communities within and between the clinical, research and teaching spectrum of faculty endeavors.

Planning and direction of the Annual Psychiatry Research Day Event to promote both research dissemination and networking, including the introduction of NIH Directors as keynote speakers. Sponsorship and oversight of a peer-reviewed Pilot Grants program to foster research efforts especially for junior faculty, as well as Pilot Program Initiatives with regional institutions including Assumption College and Tufts/Cummings Veterinary School to promote cross-institutional collaboration and learning communities within and between the clinical, research and teaching spectrum of faculty endeavors.

Associate Director, Center for Comparative NeuroImaging Department of Psychiatry University of Massachusetts Medical School, Worcester, MA	2001-2007
Administrative oversight for the Center.	
Associate Director, Behavioral Neuroscience Program University of Massachusetts Medical School, Worcester, MA	1998-2001
Administrative oversight for the Program.	
Additional Training and Certification	
Executive Leadership in Academic Medicine (ELAM) International Center for Executive Leadership in Academics Drexel University, Philadelphia, PA Project Title: Faculty Diversity: From The Road Less Travelled – To Exploring New Trails	2011-2012
Short Course in Functional Magnetic Resonance Imaging Martinos Center for Biomedical Imaging - Functional MRI Visiting Fellowship Program, Massachusetts General Hospital, Charlestown, MA	2000
Awards and Honors	
Outstanding Mentor Award – Women's Faculty Committee University of Massachusetts Medical School, Worcester, MA	2012
Executive Leadership in Academic Medicine (ELAM) Fellow International Center for Executive Leadership in Academics Drexel University, Philadelphia, PA	2011-2012
Outstanding Advocate for Girls Award Girls Incorporated of Worcester, Worcester, MA	2009
Commonwealth of Massachusetts - State Senate Official Citation Advocate for Adolescent Girls and Mentor to Women of All Ages Signed by President of the Senate of Massachusetts	2008
University of Massachusetts President's Public Service Award University of Massachusetts Medical School, Worcester, MA for exemplary public service to the Commonwealth of Massachusetts	2008
Outstanding Community Service Award - Women's Faculty Committee University of Massachusetts Medical School, Worcester, MA	2008
Erskine Award in Science and Medicine YWCA of Central Massachusetts, Worcester MA	2004

Florence Siebert Memorial Scholarship American Association of University Women, Washington, DC	1993-1994
Distinguished Merit Dissertation Award New York University, New York, NY	1988
Porter Physiology Development Fellowship Award American Physiological Society, Bethesda, MD	1981-1988
Minority Biomedical Research Support (MBRS) Award Fellow National Institute of Health (NIH), Bethesda, MD	1980-1982
Chi Beta Phi (National) Honor Society for Science Students	1975-1979
Professional Memberships and Activities	
International Brain Research Organization (IBRO) -Organization Women in World Neuroscience (WWN) Workshop World Congress of Neuroscience, Chair -Organization Women in World Neuroscience (WWN) Executive Committee -Organization Women in World Neuroscience (WWN) Mentoring Committee -IBRO Society Member	2011 2010-present 2009-present 2009-present
Society for Research on Nicotine & Tobacco	2008-present
Society for Behavioral Neuroendocrinology	2003-present
Human Brain Mapping	2000-present
International Society for Magnetic Resonance in Medicine	2000-present
Society for Neuroscience -Career Professional Development Programs, <i>Mentor</i> -Member	2009-present 1984-present
New York Academy of Sciences -NY Academy of Sciences Conference, Coordinating Committee, Chair -NY Academy of Sciences Conference Planning Committee, Chair -Member	2003 2002 1984-present
Editorial Responsibilities Ad hoc Reviewer	
PLOS ONE	2013
Journal of Neurotrauma	2011-present

NeuroImage	2011-present
Addiction Research	2010-present
Society for Research on Nicotine and Tobacco	2010-present
Behavioral Brain Research	2008
Clinical Chemistry	2007
Biological Psychiatry	2007
Hormones and Behavior	2005
Physiology and Behavior	2005
Women's Health: Research on Gender, Behavior and Policy	2000
J. Comparative Neurology	2000
Psychiatric Research Services	1998
Editorial Board HealthQuest Magazine, Atlanta, GA	1995-present
Selected Editor Annals of New York Academy of Sciences (special volume)	2003

Educational Activities

Teaching Activities

Curriculum Development and Course Leadership: Post-doctoral, graduate, undergraduate and high school level programs

Summer Program in Neuroscience, Ethics, and Survival (SPINES) *Co-Leader* 2013
The Marine Biological Laboratory in Woods Hole, MA

This NIMH-funded course for doctoral and post-doctoral students consists of laboratory exercises and seminars on hot topics in neuroscience research, workshops on critical professional skills, and it offers students unrivaled opportunities to network with neuroscientists from around the world who spend the summer working at the MBL.

High School/Neuroscience Internship in Psychiatry Founding Organizer, Leader
Department of Psychiatry, University of Massachusetts Medical School,
Worcester, MA

2009-2013

Summer program for High School students interested in Neuroscience. Internship program includes, lectures, seminars, workshops, and shadowing of UMMS faculty members in both research and clinical programs. (~12 students/year from around the country)

Imaging and the Brain (GSBS Course #BE 740C) (Part II) Organizer/Lecturer Graduate School of Biomedical Sciences, University of Massachusetts Medical School, Worcester, MA

2006

Featured advanced special topics in NeuroImaging; including MR physics, brain mapping and neuroinformatics. Students in GSBS (UMass) and WPI graduate program attended.

Imaging and the Brain (GSBS Course #NE 740C) (Part I) Organizer/Lecturer Graduate School of Biomedical Sciences, University of Massachusetts Medical School, Worcester, MA

2005

Featured special topics in NeuroImaging; including MR physics, brain mapping and neuroinformatics. Students in GSBS (UMass) and WPI graduate program attended.

Neuroscience Course: Brain Mechanism Underlying Disease Processes Course Developer, Primary Lecturer, Spelman College, Atlanta, GA 1991

First Undergraduate course in Neuroscience offered at Spelman for students in all three neighboring schools (Clark Atlanta University, Morehouse College and Spelman College). It covered lectures on basic neurochemistry, and neuroanatomy underlying critical mental health and neurological disorders (50 – 60 students from regional institutions).

Center for Comparative NeuroImaging Research Seminar Series (*Leader*)

Department of Psychiatry, University of Massachusetts Medical School,
Worcester. MA

2007- present

Weekly lecturers given by national and local speakers in neuroscience, neuroimaging, and brain disorders.

Mentoring, Advising & Supervision

Mentoring Leadership - National/International

IBRO/Organization Women in World Neuroscience (WWN)

Mentoring Committee

2009-present

Society for Neuroscience
-Career Professional Development Programs, *Mentor*

2009-present

Albert Schweitzer Fellowship Program, *Academic Mentor*Boston, MA

2001-2002

Mentoring Leadership – UMMS, School and Department

UMMS Microcommunities (mentoring circles) for Diverse Faculty Development Tailored mentoring circles per faculty member, 5 faculty/year

2011-present

UMMS Faculty Diversity Scholars Program Mentor Individualized mentoring,1-2 faculty per year

2008-present

Faculty Mentoring: Current Mentees (Intensive)

Gina Vincent, PhD

Associate Professor

Co-Director, National Youth Screening & Assessment Project

Center for Mental Health Services Research

Department of Psychiatry, University of Massachusetts Medical School, Worcester, MA

Primary Mentor - K01 Career Development Award application "Neuro-imaging Youth with Callous Unemotional Traits and Conduct Disorder (CU-CD) and Co-morbid Substance Abuse."

Rebecca S. Lundquist, MD

Assistant Professor

Medical Director, Ambulatory Psychiatry

UMass Memorial Medical Center

Department of Psychiatry, University of Massachusetts Medical School, Worcester, MA

Ruthann Rizzi, MD

Assistant Professor

Director Student Counseling Service

UMass Memorial Medical Center

Department of Psychiatry, University of Massachusetts Medical School, Worcester, MA

David Cochran, MD, PhD

Assistant Medical Director, Center for Autism and Neurodevelopmental Disorders (CANDO)

Assistant Professor of Psychiatry

Department of Psychiatry/UMMS

Nanyin Zhang, PhD

Assistant Professor

Department of Psychiatry

Center for Comparative NeuroImaging (CCNI) /UMMS

Constance Moore, PhD

Associate Professor

Associate Director of Translational Imaging

Department of Psychiatry/UMMS

Kensuke Futai, PhD

Assistant Professor

Department of Psychiatry/UMMS

Brudnick Neuropsychiatric Research Institute

Tiffany Moore-Simas, MD

Associate Professor

Department of Obstetrics & Gynecology

General Ob/GYN/UMMS

Faculty Mentor: Diversity (Minority) Scholars

Rosalie Torres-Stone, PhD

Assistant Professor Center for Mental Health Services Research Department of Psychiatry University of Massachusetts Medical School, Worcester, MA

Benjamin Nwosu, MD

Assistant Professor of Pediatrics
Division of Pediatric Endocrinology
University of Massachusetts Medical School, Worcester, MA

Rashelle Hayes, PhD

Assistant Professor Preventive & Behavioral Medicine University of Massachusetts Medical School, Worcester, MA

Javier Gordon Ogembo PhD

Assistant Professor Department of Medicine University of Massachusetts Medical School, Worcester, MA

Marcus P. Cooper, M.D.

Assistant Professor of Medicine Division of Cardiovascular Medicine University of Massachusetts Medical School, Worcester, MA

Faculty Mentor: On-Boarding Minority Faculty

B. Marie Ward, M.D., F.A.C.S.

University of Massachusetts Memorial Medical Center Department of Surgery Division of Surgical Oncology University of Massachusetts Medical School, Worcester, MA

Faculty Mentor: International

Ana Raquel Mesquita, PhD

Assistant Investigator Neuropsychophysiology Lab - CIPsi School of Psychology University of Minho Braga, Portugal

Research Training and Supervision: Post Doctoral Trainees

Worcester Polytechnic Institute, Worcester, MA

Trainee/Current Position	Training Years
Dr. Wei Huang Post-Doctoral Fellow Department of Psychiatry Center for Comparative NeuroImaging (CCNI), University of Massachusetts Medical School Worcester, MA 01605	2007-present
Dr. Kenneth M. Sicard, MD PhD Department of Radiology Saint Vincent Hospital/Worcester Medical Center Worcester, MA 01605	2000-2004
Dr. Wei Chen Associated Faculty Member Yerkes Imaging Center Yerkes National Primate Research Center Emory University Room# 2282, Neuroscience Research Bldg. 954 Gatewood Road, NE, Atlanta, GA 30329	2003-2010
Dr. Nils Henninger, MD Department of Neurology University of Massachusetts Medical School Worcester, MA 01605	2004-2008
Dr. Zhixin Li Research Scientist Department of Plastic Surgery Medical College of Wisconsin 8701 Watertown Plank Road Milwaukee, WI 53226	2002-2006
Research Training and Supervision: Pre-doctoral Trainees: (Advisory Role)	
Zhifeng Liang , PhD candidate - Dissertation expected date 2013 <i>Potential Dissertation Title</i> : Anticorrelated Functional Connectivity in Awake Rat Brain University of Massachusetts Medical School, Worcester, MA	2009-present
Pallavi Rane, PhD Dissertation Title: Rat Model of Pre-Motor Parkinson's Disease: Behavioral and MRI Characterization Werester Polytochnia Institute, Werester MA	2005-2011

Karl F. Schmidt, PhD 2002-2006

Dissertation Title: Development of Pharmacological Magnetic Resonance Imaging Methods and Their Application to the Investigation of Antipsychotic Drugs University of Massachusetts Medical School, Worcester, MA

Jeffrey R. Tenney, MD PhD

2002-2005

Dissertation Title: Functional MRI of Rat and Monkey Models of Absence Epilepsy University of Massachusetts Medical School, Worcester, MA

Katariina Lahti, PhD 1995-1998

Dissertation Title: Functional Magnetic Resonance Imaging and Spectroscopic Imaging Techniques in Pre-clinical Modeling Worcester Polytechnic Institute, Worcester, MA

Research Training and Supervision: Dissertation Committee Roles (local and regional)

Research Advisory Committee, Chair (Qualifying Exam)

2012-present

Jennifer Ngolab, Ph.D.

Thesis: "Dissecting the Function of a4* Nicotinic Acetylcholine Receptors in Neuronal Sub-Populations of the Ventral Tegmental Area during Nicotine Reward" University of Massachusetts Medical School, Worcester, MA

Research Advisory Committee, *Member*

2012

Ma. Reina D. Improgo, Ph.D.

Thesis: "Regulation and Function of Neuronal Nicotinic Acetylcholine Receptors in Lung Cancer

University of Massachusetts Medical School, Worcester, MA

Research Advisory Committee, Chair

2012

Pallavi Satish Rane, Ph.D.

Thesis: Rat Model of Pre-Motor Parkinson's Disease: Behavioral and MRI Characterization

Worcester Polytechnic Institute, Worcester, MA

Thesis Research Advisory Committee, *Member*

2012

Yao Wang

Thesis: "Structural and Functional Connectivity Analyses of Rat Brains Based on fMRI Experiments"

Worcester Polytechnic Institute, Worcester, MA

Thesis Research Advisory Committee (TRAC) Research Committee, Chair

2011-present

Suzanne Czerniak

Title of Proposal: How Methylphenidate Affects Brain Function in Children with ADHD as Assessed by Task-Based fMRI: A Systematic Review University of Massachusetts Medical School, Worcester, MA

Research Advisory Committee, Chair

2011

Ali Bourisly, Ph.D

Thesis: "Neuronal Correlates of Diacritics and an Optimization Algorithm for Brain Mapping and Detecting Brain Function by Way of Functional Magnetic Resonance Imaging"

Worcester Polytechnic Institute, Worcester, MA

Research Advisory Committee, <i>Member</i> Wei Huang Ph.D. Thesis: Automatic Affine and Elastic Registration Strategies for Multi-Dimer Medical Images Worcester Polytechnic Institute, Worcester, MA	2007 nsional
Research Advisory Committee, <i>Chair</i> Karl F. Schmidt, Ph.D. Thesis: Development of Pharmacological Magnetic Resonance Imaging Me and Their Application to the Investigation of Antipsychotic Drugs University of Massachusetts Medical School, Worcester, MA	2006 ethods
Research Advisory Committee, <i>Chair</i> Jeffrey R. Tenney, Ph.D., M.D. Thesis: Functional MRI of Rat and Monkey Models of Absence Epilepsy University of Massachusetts Medical School, Worcester, MA	2005
Research Advisory Committee, <i>Chair</i> Kenneth M. Sicard, Ph.D., M.D. <i>Thesis:</i> Multimodal MRI, Behavioral Testing, and Histology in a Rat Model of Transient Focal Cerebral Ischemia University of Massachusetts Medical School, Worcester, MA	2004
Research Training and Supervision: NIH-Funded Undergraduate Research St Center for Comparative Neurolmaging, Department of Psychiatry, University Medical School	
Fellow/Home Institution	Fellowship Yea
Kenneth Vera	2009

Fellow/Home Institution	Fellowship Year
Kenneth Vera Chronic Nicotine Exposure Alters Brain Region Volumes in an Adolescer University of Florida	2009 nt Rat Model
Colin Smith Varenicline Attenuates Prodromal Olfactory Deficits in Toxin Induced Rar of Parkinson's Disease Sacred Heart University	2009 t Model
Rhiannon Bircher Varenicline's Cognitive Enhancing Effects in an Animal Model of ADHD Juniata College	2009
Jose Martinez Imaging Brain Networks Associated with Emotional Fear in the Rat College of the Holy Cross	2009
Monica Ortiz Autocad representation of animal holders for fMRI Worcester Polytechnic Institute (WPI), Worcester, MA	2008
Soyeon Park Neuroprotection in the Early Stages of Parkinson Disease University of Pennsylvania	2008

Jocelyn Wong Building Brain Maps	2007
Wellesley College Adrienne Taylor Parkinson Disease and Nicotine Duke University	2007
Ayush Kishore Depression and Na Bu California State University, Stanislaus	2006
Elizabeth Ortiz Behavior and Cognition in Parkinson disease models Messiah College	2006
Nordia Bernard Aggression and Cognition associated with alcohol abuse University of Rochester	2005
Rahma Adams Nicotine effects in behavior Harvard University	2004
Salma Akter Effects of Subjugation Stress on alcohol consumption in adolescent and adult hamsters Marymount Manhattan College	2004
Lakee Smith Animal models of Stress Worcester Polytechnic Institute (WPI), Worcester, MA	2003
Nihal Patel Testosterone and Fear University of Massachusetts Lowell	2002
Washington DeOlivera Axiolytic Effects of DOI UMass Amherst	2000
Germaine Garcia Effects of BDNF in an animal model of ADHD University of Connecticut	1999
Amanda James Estrus cycle and the fear response Colgate University	1996
Chizoba Ngesina Modulation of Nicotine Addiction by Epigenetic Factors University of North Carolina	1993
Research Training and Supervision: Undergraduate/Graduate Trainees, Center for Comparative Neuroimaging, Department of Psychiatry, University of Massachusetts Medical School	
Matt Czech	2012

University of Pittsburgh Pittsburgh, PA

Kelly Tam Behavioral and imaging on Nicotine Studies Worcester Polytechnic Institute (WPI)	2011
Fatima Paredes Multi model imaging and Brain Atlas Worcester Polytechnic Institute (WPI)	2011
Christina Judice Behavioral studies for Nicotine addiction College of the Holy Cross	2011
Britney Atwater Parkinson's disease and subdural hematoma evacuations Worcester Polytechnic Institute (WPI)	2010
Raashika Goyal Rat models of Parkinson's disease Advanced Math and Science Academy	2010
Nathan Climer Build a functional generator for fMRI research Worcester Polytechnic Institute (WPI)	2009
Lan Tran ADHD Animal Models University of the Holy Cross	2007
Garrett Seale Effects of Nicotine and stress on brain BDNF and behavior Brown University	2005
Timothy Garelick Imaging the fear response in animals UMass Medical School	2004
Victoria Rossi Prenatal nicotine exposure on brain development and neurotransmitter release George Washington	2004
Marx DeSa Effects of clauvulanic acid on anxiety behavior Worcester State College	2003
Laurea Diaz Ligand Preparation for MRI studies Worcester Polytechnic Institute (WPI)	2003
Christopher Springer 2DG uptake in a Learned Helplessness Model Dartmouth College	2003
Mathew Brevard fMRI Methods Worcester Polytechnic Institute (WPI)	2000

Meredith Mattison Effects of prenatal nicotine on ADHD in humans College of William & Mary	1999	
David Onley Neurotrophic markers in successful aging UC San Francisco	1999	
Terri-Ann Kelly Attention Deficit Hyperactivity Disorder and the effects of Testosterone Worcester Polytechnic Institute (WPI)/Columbia	1995	
Soukaina Adolphe Nicotine Effects in an ADHD Model Simmons: University of Massachusetts Medical School	1995	
Pamela Graybeal Depression and Fear Worcester Polytechnic Institute (WPI)/University of California	1994	
Heather McCarthy Maternal Deprivation and Nicotine effects in an animal model of ADHD University of Vermont	1994	
Deborah Peters Changes in Cognition in animal models of early stress Brown University	1994	
Keren Shtigman Substance abuse and stress during development Clark University; U Tel Aviv, Israel	1994	
Research Training and Supervision: High-School Trainees/Summer Neuroscience Internship in Psychiatry, Department of Psychiatry, University of Massachusetts Medical School		
Vincent Cariddi River Dell High School in Oradell, NJ	2012	
Suraj Subramanian St. John's HIgh School in Shrewsbury MA	2011	
Jasmin Martin Algonquin Regional High School	2010	
Dana Marrone Worcester Academy	2010	
Christopher Zammitti Tahanto Regional High School	2010	
Victoria Wang Shrewsbury High School	2009	
Sasha Benitez Holy Name High School	2009	

2009

<u>Grants – Funding Sources</u>

Current

Multiple Principal Investigators: Nanyin Zhang /Jean King Effort: 20.00%

Project Number: R01MH098003-01A1

Source: NIH

Title of Project: Longitudinally assess the impact of early trauma on neural circuitry development Major Goals: To investigate the impact of early trauma on the development of the neural circuits implicated in stress-induced disorders in an animal model.

Dates 6/1/2013-4/30/2018

Direct Costs: \$1,250,000 Indirect Costs: \$826,950

Multiple Principal Investigators Carl Fulwiler/Jean King Effort: 10.00%

Project Number: R34-AT006963-01A1

Source: NIH

Title of Project: Mind and health: Developing a neural marker for mindfulness, a pathway to health. Major Goals: The proposed study directly addresses NCCAM's priority topic for preliminary clinical studies for large interventional trials of CAM by validating an objective and quantitative measure of mindfulness and well-being.

Dates 5/1/2013-4/30/2016

Direct Costs: \$450,000 Indirect Costs: \$290,250

Principal Investigator: Jean King (PI) Effort 30.00%

Project Number: 1R01DA025690-01A3

Source: NIH/NINDS

Title of Project: Possible Significance of Cholinergic Influence in ADHD

Major Goals: The major goals of this project are to examine acute versus chronic nicotine

administration on brain activity and to assess the process of addiction through the window of behavioral sensitization.

Dates Approved: 05/01/10-04/30/15

Direct Costs: \$1,154,865 Indirect Costs: \$744,604

Principal Investigator: Jean King (PI) Effort: 30.00%

Project Number: 5 R01 DA021846-02

Source: NIH

Title of Project: Imaging Nicotine-induced behavioral Sensitization with fMRI

Major Goals: The major goals of this project are to examine acute versus chronic nicotine

administration on brain activity and to assess the process of addiction through the window of behavioral

sensitization.

Dates Approved: 04/01/07-03/31/13 (1 year no cost extension)

Direct Costs: \$1,086,948
Indirect Costs: \$661,604

Principal Investigator: Gina Vincent (PI)/Jean King (Primary Mentor) Effort: 0

(Significant Contributor)

Project Number: 1 K01 DA026502-01A1

Source: NIH/NIDA

Title of Project: Primary Mentor - K01 Career Development Award application "Neuro-imaging Youth with Callous-Unemotional Traits and Conduct Disorder (CU-CD) and Co-morbid Substance Abuse."

Date Approved: 7/1/2010-6/30/2015

Direct Costs: \$833,555 Indirect Costs: \$61,376

Pending

Principal Investigator: Jean King

Project Number: S10 OD018132-01

Source: NIH/NCRR

Title of Project: 4.7T Magnet Upgrade

Major Goals: To purchase an upgrade to our current 4.7 T high field system

Dates Proposed: 3/ 2014- 3/2015

Direct Costs: \$600,000

Indirect Costs:

Completed

Principal Investigator: Gina Vincent (PI)/Jean King (Co-PI)

Source: American-Psychology Law Society Interdisciplinary Research

Grant

Title of Project: fMRI Study of Callous-Unemotional Conduct Disorder and Co-

Morbid Drug Abuse.

Date Approved: 2009-2011 Direct Costs: \$5,000

Principal Investigator: Jean King (PI) Effort: 10.00%

Source: Pfizer, Inc.

Title of Project: Effect of Nicotine and Varenicline on Brain Activity in Conscious Rats Using fMRI/BOLD

Major Goals: The major goal of this project is to examine the changes in brain activity with

varenicline treatment.

Dates Approved: 11/3/2006-5/1/2009

Direct Costs: \$ 92,308 Indirect Costs: \$ 57,692

Principal Investigator: DiFranza (PI) Jean King (Co-PI) Effort: 30.00%

Project Number: 1 R03 DA024217

Source: NIH

Title of Project: "Imaging of nicotine sensitization in humans: a translational application of fMRI." Major Goals: The goal was to determine if MRI can image sensitization in smokers' brains, and if so, was it possible to image human sensitization to all addictive drugs.

Dates Approved: 4/10/2008-3/31/2009

Annual Direct Costs: \$250,000

Principal Investigator: Jean King (PI) Effort: 50.00%

Project Number: R01MH067096

Source: NIH
Title of Project: Imaging Unconditioned Fear

Major Goals: The major goal of this project was to apply MRI techniques to explore brain activation to fear-inducing stimuli and diazepam in adult male and female SD rats (across the estrus cycle and

during lactation with and without pups).

Dates Approved: 12/6/2002-11/30/2007

Direct Costs: \$ 688,055 Indirect Costs: \$ 401,640

Principal Investigator: Jean King (PI) Effort 30.00%

Project Number: R33 CA95876

Source: NCI

Title of Project: NMR Imaging of Prostate Cancer Using Ligands

Major Goals: The major goals of this project are to examine changes in growth of prostate cancer cells

as well as utilization of NMR ligands developed for tracking neurotensin

Dates Approved: 09/01/2004-08/31/2006

Direct Costs: \$ 351,842 Indirect Costs: \$ 197,983

Principal Investigator: Jean King (PI) Effort: 10.00%

Source: Rexahn

Title of Project: Preclinical Behavioral assays of anxiety and cognition

Major Goals: The major goal of this project was to test proprietary drugs in preclinical behavioral assays

of anxiety and cognition.

Dates Approved: 8/1/2005-9/30/2006

Direct Costs: \$58,974 Indirect Costs: \$17,692

Principal Investigator: Craig Ferris (PI)

Co- Investigator Jean King (co-I) Effort: 20.00%

Source: NIH
Project Number: DA013517

Title of Project: MRI of Brain Function and Receptors in Cocaine Addiction

Major Goals: The major goal of this project is to examine the changes in brain activity with

cocaine treatment.

Dates Approved: 9/30/2001-7/31/2006

Direct Costs: \$1,140,435 Indirect Costs: \$490,371

Principal Investigator: Craig Ferris (PI)

Co- Investigator Jean King (Co-I) Effort: 10.00%

Source: NIH
Project Number: DA013517

Title of Project: Adolescent Stress and Neuroplasticity

Major Goals: The major goals of this project were to examine the changes in brain activity during early

development and the impact of stress on normal development.

Dates Approved: 3/1/2000-2/28/2005

Direct Costs: \$ 762,907 Indirect Costs: \$ 398,775 Principal Investigator: Jean King (PI)

Source: NSF

Project Number: DBI-0200575

Title of Project: 9.4T a Micro-Imaging Spectrometer for High Field Imaging

Major Goals: The major goal of this project was to purchase and utilize a high field system to

image animal models of mental health and neurological disorders

Dates Approved: 7/1/2002-6/30/2004

Total: \$250,000

Principal Investigator: Jean King (PI) Effort 30.00%

Project Number: R21 CA95876

Source: NCI

Title of Project: NMR Imaging of Prostate Cancer Using Ligands

Major Goals: The major goals of this project are to examine changes in growth of prostate cancer cells

as well as utilization of NMR ligands developed for tracking neurotensin

Dates Approved : 05/22/2002-04/30/2004

Direct Costs: \$ 198,526 Indirect Costs: \$ 116,799

Principal Investigator: Craig Ferris (PI)/Jean King (Co-PI) Effort: 20.00%

Source: NIH
Project Number: MH58700

Title of Project: Functional MRI of Sexual Motivation in Nonhuman Primate

Major Goals: The major goal of this project is to image changes in brain activity accompanying

exposure to olfactory odors of mates and associated with sexual encounters

Dates Approved: 2/1/2000-1/31/2003

Direct Costs: \$803,201 Indirect Costs: \$335,754

Principal Investigator: Jean King (PI)

Source: NIMH

Project Number:

Title of Project: Understanding Mental Illness in Children

Major Goal: The major goal of this project is to hold an international conference at Rockefeller University and the New York Academy of Sciences to better understand childhood mental illness

through translational research approaches.

Dates of Approved: 2002

Total Costs: \$50,000

Principal Investigator: Jean King (PI) Effort: 20.00%

Source: NIMH/STTR Phase 2

Project Number: MH59501B

Title of Project: Non-Invasive Devices for fMRI Studies in Mental Illness

Major Goals: The major goal of this project is to develop novel devices for animal imaging

Dates Approved: 6/1/1999-8/31/2001

Direct Costs: \$ 137,234 Indirect Costs: \$ 75,942

Principal Investigator: Jean King (PI) Effort: 50.00%

Source: NSF (DBI-9604937)

Title of Project: Neuroimaging in Awake Animals: Capabilities of Novel Device

Major Goals: The major goal of this project was to perform for the first time animal imaging in awake

animals Rats and monkeys)

Dates Approved: 2/1/1998-1/31/2001

Direct Costs: \$ 257,239 Indirect Costs: \$ 135,866

Principal Investigator: Jean King (PI) Effort: 5.00%

Source: Worcester Foundation For Biomedical Research

(Annual Research Fund)

Title of Project: Predicting early risk for depression with functional Magnetic Resonance

Major Goals: The major goal of this project was to examine the changes in brain activity in an animal model of depression in order to finger-print stress-induced changes leading to depression-like

behaviors.

Dates Approved: 2001 Total Cost: \$30,000

Principal Investigator: Jean King (PI) Effort: 10.00%

Source: NIMH/STTR Phase 1

Project Number: MH59501A

Title of Project: Non-Invasive Devices for fMRI Studies in Mental Illness

Major Goals: The major goal of this project is to develop novel devices for animal imaging

Dates Approved: 1/1999-6/1999

Total Direct Costs: \$30,000

Principal Investigator: Russell Barkley (RO1,PI)

Principal Investigator (Supplement): Jean King (Suppl. PI) Effort: 50.00%

Source: NIMH/Supplement/MH457114

Title of Project: ADHD Animal Models: The Effects of Stress and relation to Human ADHD

Major Goals: The major goal of this project is to examine the changes in neuro-endocrine system in an

animal model of ADHD and humans

Dates Approved: 1996- 1998
Direct Costs: \$ 100.000
Indirect Costs: \$ 57,692

Principal Investigator: Jean King (PI) Effort: 100.00%

Source: American Association Of University Women

(Siebert Scholar Award)

Title of Project: Stress Factors effects on Fibroid (in vitro cell lines) Growth

Major Goals: The major goal of this project was to examine changes in growth rate of fibroid cells in

culture with/without exposure to stress factors
Dates Approved: 1993-1994

Total: \$50,000

Principal Investigator: Jean King (PI)

Source: Center for Disease Control

Title of Project: Impact of Stress on Health and Wellbeing

Major Goal: The major goal of this project is to hold a conference at Spelman College in Atlanta

Georgia on stress and health (with special emphasis on communities of color)

Dates Approved: 1993-1994 Total Costs: \$ 50,000 Principal Investigator: Jean King (PI) Effort: 100.00%

Source: NIMH (F32)

Post Doctoral Funding

Title of Project: Effect of Stress on Development in the Neonatal Rat and Human Infant

Major Goals: The major goal of this project was to explore translational approaches to studying the

effects of stress on development and behavior
Dates Approved: 1990-1993
Total: \$150,000

Patents

Title: Method and Apparatus for Performing Neuroimaging, Reg. #6711430

Title: Method and Apparatus for Performing Neuroimaging on Monkeys, Reg. #6275723

Title: Peptide Ligand Chelated Paramagnetic Elements as MRI Contrast Agent, Reg. # 42088

Publications

Peer-Reviewed Publications

- 1. Heffernan, ME., Huang, W., Sicard, KM., Bratane, BT., Zhang, N., Fisher, M., **King, JA**., (2013). Multi-modal approach from investigating brain and behavior changes in an animal model of traumatic brain injury. Journal of Neurotrauma (in press).
- Czerniak, SM., Sikoglu, ME., King, JA., Kennedy, DE., Mick, E., Frazier, J., and Moore, CM., (2013). Areas of the Brain Modulated by Single Dose Methylphenidate Treatment in Youth with ADHD During Task-Based fMRI: A Systematic Review Journal: Harvard Review of Psychiatry (in press).
- 3. DiFranza, JA., Huang, W., and **King, J**., (2012). Neuroadaptation in Nicotine Addiction: Update on the Sensitization-Homeostasis Model. Brain Science. *2*, 523-552.
- 4. Fulwiler, CF., **King JA** and Zhang, N., (2012). Amygdala-orbitofrontal resting-state functional connectivity is associated with trait anger. Neuroreport 23(10):606-10.
- 5. Liang Z., **King J.**, and Zhang, N., (2012). Anticorrelated resting-state functional connectivity in awake rat brain. Neuroimage. 16;59(2):1190-9.
- 6. Rane, P., Shields, J., Heffernan, M., Guo, Y., Akbarian, S., **King, J.A**., (2012). The histone deacetylase inhibitor, sodium butyrate, alleviates cognitive deficits in pre-motor stage PD. Neuropharmacology. 62(7):2408-11.
- 7. Liang Z., **King J**., Zhang N., (2012). Intrinsic organization of the anesthetized brain. J Neurosci. 25;32(30):10183-9120.
- 8. Huang, W., Heffernan, ME., Li, Z,, Zhang N., Overstreet DH., and **King JA**., (2012). Fear induced neuronal alterations in a genetic model of depression: an fMRI study on awake animals. Neuroscience Letters, 489:74-78.
- 9. Liang Z., **King JA.,** and Zhang N., (2011). Uncovering Intrinsic Connectional Architecture of Functional Networks in Awake Rat Brain. Journal Neuroscience, 9;31(10) 3776-83.
- 10. Rane P., and **King J**., (2011) Exploring aversion in an animal model of pre-motor stage PD Neuroscience. 5;(181) 189-95.
- 11. **King, J.**, Huang, W., Chen, W., Heffernan, M., Shields, J., Rane, P., Bircher, R., and DiFranza, J., (2011). A Comparison of brain and behavioral effects of varenicline and nicotine in rats. Behavioral Brain Research 222: 42-47.
- 12. Nwosu, BU., Meltzer, B., Maranda, L., Ciccarelli, C., Reynolds, D., Curtis, L., **King J**, Frazier, JA., and Lee, MM., (2011). A potential role for adjunctive vitamin D therapy in the management of weight

- gain and etabolic side effects of second-generation antipsychotics. J Pediatr Endocr Met 24(9-10):619–626.
- 13. Zhang, N., Rane, P., Huang, W., Liang, Z., Kennedy, D., Frazier, J. and **King J.**, (2010). Mapping resting-state brain networks in conscious animals. Journal of Neuroscience Methods 189 (2); 186-196.
- 14. Deog, MJ., **King, JA.**, Zuccarelli, L., Ferris, CF., Koppel, GA., Snowdown, CT., Ahn Chang, AH., (2009). Clavulanic acid: A competitive inhibitor of beta-lactamases with novel anxiolytic-like activity and minimal side effects. Pharmacology, Biochemistry and Behavior Vol 93 pp 112-120.
- 15. Chen, W., Shields, J., Huang, W., **King, J.**, (2009). Female Fear: Influence of Estrus Cycle on Behavioral Response and Neuronal Activation. Behavioural Brain Research (201):8-13.
- 16. Febo, M., Shields, J., and **King, JA.**, (2009). Oxytocin modulates unconditioned fear response in lactating dams: an fMRI study. Brain Research 1302:183-93.
- 17. Li, Z., Wellman, RJ., Kulkarni, P. and **King, JA**., (2008). Imaging Brain Activation in Nicotine-Sensitized Rats. Journal Brain Research Vol 1199C pp 91-99.
- 18. Shields, J., De Oliveira, WL., and **King, JA**., (2008). The Role of 5-HT1A Receptors in the Behavioral Responses Associated with Innate Fear. Behavioral Neuroscience Vol 122 (3) pp-611-7.
- 19. **King, JA** and Rossi, V., (2007). Nicotine and ADHD:Cognitive Association. Journal of Dual Diagnosis, 3 (2): 9-17.
- 20. Luo, F., **King, JA.**, et al., (2007). Confounding effects of volatile anesthesia on CBV assessment in rodent forebrain following ethanol challenges. Journal of Magnetic Resonance Imaging 26(3):557-63.
- 21. Chen, W., Tenney, J., Kulkarni, P., and **King JA**., (2007). Imaging Unconditioned Fear Response with Manganese Enhanced MRI. Neuroimage Vol. 37(1):221-9.
- 22. **King, JA.,** and Rossi, V., (2007). Nicotine and ADHD: Cognitive Association. Journal of Dual Diagnosis. 3 (2):9-17.
- 23. Ferris, CF., Febo, M., Luo, F., Schmidt, K., Brevard, M., Harder, JA., Kulkarni, P., Messenger, T., and **King, JA**., (2006). Functional Magnetic Resonance Imaging in Conscious Animals: A New Tool in Behavioural Neuroscience Research. Journal of Neuroendocrinology. 18:307-318.
- 24. **King, JA.**, Rosal, MC., Ma, Y., Reed, G., Ockene, I., (2005). Association of stress, hostility and plasma testosterone levels. Neuro Endocrinol Lett. 26(4):355-60.
- 25. **King, JA.**, De Oliveira, W., Patel, N., (2005). Deficits in testosterone facilitate enhanced fear response. J Psyneuroendocrinology. 30(4):333-40.
- 26. **King, JA.**, Chen,W., Garelick, T., et al., (2005). Procedure for minimizing stress for fMRI studies in conscious rats. Journal of Neuroscience Methods. 148(2):154-60.
- 27. Snowdon, CT., Ferris, C., **King, JA.**, Ziegler, TE., Schultz-Darken, NA., Olson DP., (2004). Noninvasive imaging of neural pathways activated by odors from ovulating female common marmosets. Folia Primatol. (Basel). 75 (suppl 1):222.
- 28. Ludwig, R., Bodgdanov, G., **King, J.**, Allard, A., Ferris, CF., (2004). A dual RF resonator system for high-field functional magnetic resonance imaging of small animals. J Neurosci Methods. 132(2):125-135.
- 29. Ferris, CF., Snowdon, CT., **King, JA.**, Sullivan, JM., Jr, Ziegler, TE., Olson, DP., Schultz-Darken, NJ., Tannenbaum, PL., Ludwig, R., Wu, Z., Einspanier, A., Vaughan, JT., Duong, TQ., (2004). Activation of neural pathways associated with sexual arousal in non-human primates. J Magn Reson Imaging. 19(2):168-175.
- 30. Rosal, MC., King, JA., Ma, Y., Reed, G., Herbert, JR., Stanek, E., Ockene, I., (2004). Stress, Social Support and Cortisol: Inverse Associations? Behavioral Med. 30:11-21.
- 31. Tenney, JR., Marshall, PC., **King, JA.**, Ferris, CF., (2004). fMRI of generalized absence status epilepticus in conscious marmoset monkeys reveals corticothalamic activation. Epilepia. 45(10):1240-7.
- 32. Tenney, JR., Duong, TQ, **King, JA.**, Ferris, CF., (2004) fMRI of brain activation in a genetic rat model of absence seizures. Epilepsia. 45(6):576-82.
- 33. **King, J.**, Tenney, J., (2004). maging gbl-induced absence seizures in marmoset monkeys. Folia Primatol. (Basel). 75 (suppl 1):221-222.

- 34. Tenney, JR., Duong, TQ., **King, JA.,** Ludwig, R., Ferris, CF., (2003). Corticothalamic modulation during absence seizures: A functional MRI assessment. Epilepsia; 44:1133-1140.
- 35. Sicard, K., Shen, Q., Brevard, M., Sullivan, R., Ferris, C., **King, JA.**, Duong, TQ. (2003) Regional cerebral blood flow in conscious and anesthetized rats under basal and hypercapnic conditions:implications for fMRI studies. J Cereb. Blood Flow and Metab. 23: 472-481.
- 36. **King, JA.**, Tenney, J., Rossi, V., Colamussi, L., Burdick, S., (2003). Neural substrates underlying impulsivity. Ann N Y Acad Sci. 1008:160-169.
- 37. Tenney, JR., Duong, TQ., **King, JA.**, Ferris, CF., (2003). MRI of drug-induced and spontaneous absence epiliepsy in awake rats. Epilepsia 44 Suppl. 9:43 (Abst. 1.115).
- 38. Brevard, ME., Duong, TQ., **King, JA.**, Ferris, CF., (2003). Changes in MRI signal intensity during hypercapnic challenge under conscious and anesthetized conditions. Magn Reson Imaging. 21(9):995-1001.
- 39. **King, JA.**, Messenger, T., Ferris, C., (2002). Seed finding in golden hamsters: A potential animal model for screening anxiolytic drugs. Neuropsychobiology 45:145-155.
- 40. Ferris, CF., Snowdon, CT, **King, JA.**, (2001). Duong TQ, Ziegler TE, Ugurbil E, Ludwig R, Schultz-Darken NJ, Wu Z, Olson DP, Sullivan Jr. JM, Tannenbaum PL, Vaughan JT. Functional imaging of brain activity in conscious monkeys responding to sexually arousing cues. NeuroReport 12(10):2231-2236.
- 41. **King, JA.**, Abend, S., Edwards, E., (2001). Genetic predisposition and the Development of posttraumatic stress disorder in an animal model. Biol. Psychiatry. 50:231-237.
- 42. **King, JA.**, Mandansky, D., King, S., Fletcher, KE., Brewer. J., (2001). Early abuse and cortisol. Psych and Clinical Neuroscience 55:71-74.
- 43. Edwards, E., **King, JA.**, Fray, J. (2000)Hypertension and Type II diabetes models have divergent propensities to learned helpless behaviors in rodents. Am. J. Hypertension 13:659-665.
- 44. **King, JA.**, Kelly, TN., Delville, Y. (2000). Adult levels of testosterone alters catecholamine innervation in an animal model of ADHD. Neuropsychobiology 42:163-168.
- 45. **King, JA.**, Barkley, R., Delville, Y., Ferris, C., (2000) Early androgen treatment decreases cognitive functioning and catecholamine innervation of frontal cortex in an animal model of ADHD. Behavioral Brain Research 107:35-43.
- 46. **King, JA.**, Rosal, MC., Ma, Y., (2000) Steineck III EJ, Ockene I. Sequence effects in salivary cortisol. Behav. Medicine 26 (2):67-73.
- 47. Lahti, K., Ferris, C., Sotak, C., **King, JA.,** (1999). Comparison of evoked cortical activity in conscious and propofol-anesthetized rats using functional MRI. Magnetic Resonance in Medicine 44(2):412-417.
- 48. **King, JA.**, Edwards, E., (1999). Early stress and genetic influences on hypothalamic-pituitary-adrenal axis functioning in adulthood. Hormones and Behavior 36:79-85.
- 49. Edwards, E., **King, JA.**, Fray, J., (1999). Modulation of HPA axis and renin-angiotensin system in congenital learned helpless rats exposed to stress early in development. Int. J. Develop. Neuroscience 17:805-812.
- 50. King, JA., Barkley, R., Barrett, S., (1998). ADHD and the stress response. Biol. Psychiatry 44:72-74.
- 51. Ferris, CF., Shtiegman, K., **King, JA**., (1998). Voluntary ethanol consumption in male adolescent hamsters increases testosterone and aggression. Physiol. And Behavior 63(5):739-744.
- 52. Lahti, K., Ferris, C., Sotak, C., **King, JA.**, (1998). Neuroimaging in conscious animals. Journal Neuroscience Methods 82:75-83.
- 53. Lush, DJ., **King, JA.**, Fray, JCS., (1993). Pathophysiology of low renin syndromes: sites of renal renin secretory impairment and prorenin overexpression. Kidney International 43:983-992.
- 54. **King, JA.**, Lush, DJ., Fray, JCS. (1993). Cellular regulation of renin and prorenin secretion in health and disease. Amercian Journal of Physiology 265: C305-C320.
- 55. Strand, FL., Rose, KJ., **King, JA.**, Segarra, AC., Zuccarelli, L. (1989). ACTH modulation of nerve development and regeneration. Progress in Neurobiology 33:45-85.
- 56. **King, JA.**, Campbell, D., Henn, FA., Edwards, EE., (1993). Differential development of the stress response in congenital learned helplessness. International J. Devel. Neuroscience 11: 435-442.

- 57. Henderson, M., **King, JA.,** (1992). Morbidity and mortality in women. HHS Public Health Service NIH# 92-3457:51-62.
- 58. **King, JA.**, Fray, JCS. (1992). Hydrogen and potassium regulation of (pro)Renin processing and secretion. Am. J. Physiol. 267: F1-F12.
- 59. **King, JA.**, Dávila-Gracía, M., Azmitia, EC., Strand, FL., (1991). Differential effects of prenatal and postnatal ACTH or nicotine exposure on 5HT high affinity uptake in the neonatal ra brain. Int. J. Devel. Neurosci. 9:281-286.
- 60. King, J., Strand, FL. (1988). Nicotine depression of neonatal motor activity. Peptides 9:39-44.
- 61. **King, J.**, Strand, FL., (1988). Increased ACTH plasma levels with prenatal and postnatal nicotine administration. Ann N.Y. Acad. Sci. 496:301-310.
- 62. Frischer, R., **King, J.**, Rose, KJ., Strand, FL., (1988). Matural changes induced in neonatal rat motor system with early postnatal administration of nicotine. Int. J. Dev. Neurosci. 6:149-154.
- 63. Rose, KJ., Frischer, R., **King, J.,** Strand FL., (1988). Neonatal neuromuscular parameter vary in susceptibility to postnatal ACTH/MSH 4-10 administration. Peptides 9:151-156.

Reviews, Book Chapters, and Encyclopedia Articles

- 1. DiFranza, J., Huang, W., **King, J**. Neuroadaptation in Nicotine Addiction: Update on the Sensitization-Homeostasis Model. Brain Scientific Research. *2*, 523-552 (2012).
- 2. Edwards, E., and **King, JA.** Consequences of the stress response:Genetic models of depression. New Encyclopedia of Neuroscience Editor: Larry R. Squire (2007).
- 3. McBurnett, K, **King JA**, Scarpa, A. The hypothalamic-pituitary-adrenal system(HPA) and the development of aggressive, antisocial, and substance abuse disorders In: Neurodevelopmental Mechanisms in the Genesis and Epigenesis of Psychopathology. Eds. E. Walker and D. Cicchetti, Cambridge University Press, Inc. (2003).
- 4. **King, JA.**, Tenney, J., Rossi, V., Colamussi, L., Burdick, S. Neural substrates underlying impulsivity in: Roots of Mental Illness in Children eds. King JA, Ferris CF, Lederhendler II. <u>Annals of the New York Academy of Sciences</u>, 1008: 160-169 (2003).
- 5. Rossi, V., Messenger, T., Peters, D., Ferris, CF., **King J**. Prenatal nicotine exposure and behavior in: Roots of Mental Illness in Children eds. King JA, Ferris CF, Lederhendler II. <u>Annals of the New York Academy of Sciences</u>, 1008: 289-296. (2003).
- 6. **King, JA**. Health Careers. In: <u>Routledge International Encyclopedia of Women</u>, eds. C. Kramarea and D. Spender. NY: Routledge NY, Vol 2, 982-934 (2001).
- 7. **King, JA**. (2001). Stress. In: <u>Routledge International Encyclopedia of Women</u>, eds. C. Kramarea and D. Spender. NY: Routledge NY, Vol 4, 1895-1896.
- 8. Ferris, CF., Olson, DP., **King, JA**. Functional magnetic resonance imaging in animals: applications in psychiatric research. In: <u>Contemporary Strategies in Psychiatric Neuroimaging Research</u>, eds. D. Dougherty, S. Rauch, J. Rosenbaum, American Psychiatric Press, Inc. (2001).
- King, JA. Perinatal stress and impairment of the stress response: possible link to non-optimal behavior. In: Understanding Aggressive Behavior in Children eds. Ferris, C and T. Grisso. <u>Annals of</u> <u>the New York Academy of Sciences</u>. New York Academy of Sciences N.Y. N.Y. Vol 794: 104-112 (1996).

Editor

King JA, Ferris CF, Lederhendler II. (Editors) (2003); Roots of Mental Illness in Children, Annals of the New York Academy of Sciences, New York Academy of Sciences, New York NY, volume 1008.

Press Coverage (Local and National)

Charter TV 3 Worcester, The Hank Stolz Experience Show Women's Words Week	2011
WCCA TV13 public access TV /community media center	2011
Imagine Worcester: Dr. Jean King and Ginger Novickas Worcester Telegram & Gazette, Worcester, MA, Advocate for Girls Award	2010
Girls Incorporated of Worcester Discovery Channel, Canada. The Rage Of Innocence- Effects Of Early stress On Brain Development And Behavior	2000
Telegram & Gazette, Worcester, MA-Scientist Offers	1999
Girls Simple Formula For Success. Telegram & Gazette, Worcester, MA-Consortium in NeuroImaging Boston Globe, Boston, MA-Stress Early In Life May Leave Imprint For Violence Newsday, New York, NY-Linking, Biology, Behavior Creates Rift Clinical Psychiatry News, New York, NY-Trauma Sensitizes Brain To Stress Psychology Today, New York, NY-What To Do About Stress CAU Television, Atlanta, GA-Stress And Coping	2000 2001 2005 2005 2003 2000
Presentations & Abstracts	
Invited Presentations: International Speaker	
International Brain Research Organization (IBRO) 11 th SONA International Conference, Rabat, Morocco	2013
"Translational Approaches to Studying Addiction" Mental Health Center West China Hospital Chengdu, China	2012
"Nicotine's Effects on The Brain" Annual Neuroscience Conference, Universidad Central Del Caribe, Bayamon, Puerto Rico Up In The Smoke – Nicotine Effects on The Brain	2010
University of Puerto Rico, San Juan, PR	2008
"Imaging emotion and cognitive in animal models"	
American Psychiatric Association Annual Conference Toronto, Canada	2006
"Drugs of Abuse and ADHD"	
37 th Annual International Society of Psychoneuroendocrinology (ISPNE) Conference Leiden,The Netherlands	2006
"The HPA axis as target for treatment"	
International Primatological Society, Turin Italy, Brain Imaging in Turin, Italy "Brain Imaging in Conscious Monkeys"	2006
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Invited Presentations: International – Leadership/Organizer

Society of Neuroscientists of Africa (SONA) International Conference/Co-Leader	2013
Rabat Morocco Translational Research across the Globe Women and World Neuroscience	
Organization of Human Brain Mapping (OHBM), Beijing, China/Chair and Co-Leader Women World Neuroscience Science Policy Forum Is there a Leaky Pipeline in Asia?	2012
8 th IBRO World Congress of Neuroscience, Florence, Italy/Co-Leader Successful Grant Writing Strategies and Tips for Sailing through Peer Review	2011
Invited Presentations: National - Speaker	
Grand Rounds at Case Western Reserve University School of Medicine Department of Psychiatry Cleveland, Ohio 44106 Neurocircuitries Underpinning Nicotine Addiction in Preclinical Models and Humans	2012
Neurocirculties Oriderpinning Nicotine Addiction in Frecinical Models and Humans	
University of Pennsylvania, Philadelphia, PA Grand Rounds <i>Brain Activation Accompanying Nicotine Exposure</i>	2010
Morgan State University, Baltimore, MD Keynote Using Brain Imaging to Explore Animal Models of Neurological and Psychiatric Disorders	2009
NIH Mock Panel, University of Akron, Department of Neuroscience, Akron, Ohio	2008
National Institute of Mental Health, Bethesda, MD Reward Neurocircuitry in Adolescent Development and Decision Making	2006
National Conference on Dual Diagnosis Indianapolis, IN Integrating Neurobiological, Psychiatric, and Social Systems: ADHD and Nicotine Comorbidity	2006
National Institute on Drug Abuse, Frontiers in Addiction Research, Society for Neuroscience, Washington, DC	2005
Nicotine Induced Sensitization in ADHD	
Medications Development Division/ National Institute on Drug Abuse, Bethesda, MD LHPA Axis in Psychiatric Disorders	2000
Healthy Mothers Healthy Babies Tallahassee, Florida; Keynote Speaker	2000
Department of Health and Human Services, Washington, D.C.: Sex Differences in ADHD: Role of Animal Models in ADHD Research	1996
American Psychological Association, Washington, D.C	1995
Women and Stress Panel, Chair P-University of Pennsylvania, Philadelphia, PA-MBS Symposium: Environmental Factors and Physiological Outcome, Chair	1995

NIH Office of Research on Women Health, Bethesda, MD Women in Biomedical Careers; Dynamics of Change- Strategies for the 21 st Century- Education in Biomedical Sciences	1993
Research in Minority Health Healthy Mothers- Healthy babies Annual Conference, Washington, D.C Statistical Analysis Section – <i>keynote</i>	1993
National Institute of Health -Office of Research on Women's Health, Bethesda, MD Importance of Research on Women's Health	1992
Invited Presentations: National - Leader/Organizer	
Women in World Neuroscience Mentoring Circle New Orleans, LA	2012
Society of Neuroscience, San Diego, CA MRS Identifies Cortical Neurochemical Changes in Parkinsonian Rats	2007
American Psychological Association, Washington, D.C Women and Stress Panel, <i>Chair</i>	1995
University of Pennsylvania, Philadelphia, PA-MBS Symposium: Environmental Factors and Physiological Outcome, <i>Chair</i>	1995
Emory University, Atlanta, GA- Use of Animal Models in Psychological Research	1993
Spelman College, Atlanta, GA- The Physiological Response to Stress Wellness through Stress Management and Wellness Conference, Chair	1991
Invited Presentations: Regional - Speaker	
Grand Rounds at State University of New York at Stony Brook Stony Brook, New York Linking Hands: Basic and Clinical Researchers no longer "Lost in Translation"	2013
Women in Medicine presentation at State University of New York at Stony Brook Stony Brook, New York	2013
University of Southern Maine Portland, Maine Imaging and Addiction	2013
Grand Rounds at Yale University, Department of Psychiatry New Haven, CT Understanding Nicotine Addiction: Utilizing Translational Neuroimaging	2012

Neuroscience Ethics & Survival (SPINES) Marine Biological Laboratory, Woods Hole, MA Sex Matters: Role of Gender in Brain Activation During Fear Nicotine's Effects On The Brain The Road Less Travelled-Minorities and Science: Lessons Learned	2012
Gordon Research Conference/ Amygdala in Health & Disease, Waterville, ME Long-term impact of single trauma exposure on the mPFC-amygdala circuit in the rat	2011
Neuroscience Ethics & Survival (SPINES) Marine Biological Laboratory, Woods Hole, MA Nicotine Effects on the Brain	2011
Brandeis University, Waltham, MA When and How we Enter: Activism From Where We Are	2010
Northeastern University, Boston, MA Keynote Brain Imaging in Pre-clinical models	2009
Pfizer, Inc., Groton, CT Varenicline and Nicotine Sensitization Studies	2008
Nathan Klein Institute/New York University – New York, NY Looking Inside The Brain animal models of Mental Health Disorders	2007
Shushan Conference, New York, NY MRS Identifies Cortical Neurochemical Changes in Parkinsonian Rats	2007
National Institutes on Drug Abuse, Cambridge, MA Technology Challenges to Support Drug Abuse Prevention and Treatment Research	2007
Shushan Neuropeptide Conference, Shushan, NY. Magnetic Resonance Imaging in Monkeys	1997
Harvard Medical School, Department of Psychiatry, Boston, MA: Sex Hormones and Maternal Stress in an Animal Model of ADHD: Possible Mechanisms and Implications for Prevention	1996
Cornell University, Ithaca, New York, Biology Department. Hypothalamic-Pituitary Keynote -Adrenal axis dysfunction	1996
New York Academy of Sciences, New York, NY -The role of stress in development	1995
American Association of University Women, MA Keynote- Menopause, Osteoporosis and Stress, Keynote Speaker	1994
Invited Presentations: Regional – Leader/Organizer	
New York Academy of Science, Rockefeller University, New York, NY Neural substrates underlying impulsivity in: Roots of Mental Illness in Children	2003

Invited Presentations: Local Invited Speaker

Brain Imaging and Psychopathy Seminar, Department of Psychiatry University of Massachusetts Medical School, Worcester, MA Imaging the Brain: Possibilities and Limitations in the Context of Psychiatry and Law	2012
Symposium: From Brain Trauma to Neurodegeneration University of Massachusetts Medical School, Worcester, MA Multi-modal approach for investigating brain and behavior changes in an animal model of traumatic brain injury	2012
Executive Leadership in Academic Medicine (ELAM) Leaders Forum Philadelphia, PA Faculty Diversity: From Road Less Travelled – To Exploring New Trails	2012
Translational Imaging Symposium University of Massachusetts Medical School, Worcester, MA Translational Neuroimaging from Rodents to Man	2012
Worcester Polytechnic Institute, Worcester, MA Collaboration on Brain Imaging: Across the Contortion	2010
University of Massachusetts, Worcester, MA - Summer Research Fellowship Research on Stem Careers: Making of a Scientist	2009
College of the Holy Cross, Worcester, MA Multimodal imaging methods to study cognition	2008
University of Massachusetts, Worcester, MA Looking inside the Brain with MRI	2008
Shriver Foundation, Waltham, MA Imaging Brain and Behavior: Developmental Perspective	2007
Frontier in Science, UMass Medical School, Worcester, MA Looking Inside the Brain: Understanding Behavior	2007
University of Massachusetts Medical School, Worcester, MA Reward Pathway: Addiction and Co-Morbidity	2007
University of Massachusetts Medical School, Worcester, MA Brain Activation Accompanying Addiction	2007
UMASS Medical School, Worcester MA Transdisciplinary Research: ADHD and Treatment	2006
University of Massachusetts Medical School, Worcester, MA Imaging the Brain: Possibilities and Limitations in the Context of Psychiatry and the Law	2005
Worcester Pastoral Counseling Center, Worcester, MA Neurobiology and Mental Health Issues	2000
University of Massachusetts Medical School, Worcester, MA Science and Self Expression	1998
UMASS Medical Center, Worcester, MA- Grand Rounds Effects of Early Stress in Brain Development and Behavior	1994

National and International Meetings

- 1. Liang Z, **King J**, Zhang N. Global Neural Network Reorganization From Awake To Anesthetized Conditions In The Rat Brain; HBM (2012) Beijing, China.
- 2. Fulwiler C, Zhang N, **King A**. Neural Markers of Anger and Mindfulness Using rsfMRI; HBM (2012) Beijing, China.
- 3. DiFranza J, Huang W, Zhang N, Ursprung WWS, Kennedy D, and **King J**. Exploring Biomarkers of Nicotine Addiction: Resting State and DTI Measures Linked To Physical Dependence; HBM (2012) Beijing, China.
- 4. Liang Z, **King J**, Zhang N. Anticorrelated Resting-state Functional Connectivity in Awake Rat Brain; ISMRM (2012) Melbourne, Australia.
- 5. Liang Z, **King J**, Zhang N. Uncovering Intrinsic Connectional Architecture of Functional Networks in Awake Rat Brain; ISMRM (2012) Melbourne, Australia.
- 6. Liso, A. A., Sikoglu, E. M., Kennedy, D., **King, J**. A., Frazier, J. A., Moore, C. M. Resting State Functional Connectivity in Pediatric Bipolar Disorder. Society for Neuroscience (2012) New Orleans, LA.
- 7. Sikoglu, E. M., Liso, A. A., Kennedy, D., **King, J.A.**, Edden, R.A.E., Frazier, J. A., Moore, C. M. Glutamate Dysregulation in Pediatric Bipolar Disorder: A 1H MRS Study. Society for Neuroscience, (2012); New Orleans, LA.
- 8. Liso, A. A., Sikoglu, E. M., Heffernan, M., **King, J. A.**, Moore, C. M. An imaging and behavioral study of a fat enriched diet in a rat model of ADHD. Society of Biological Psychiatry Annual Meeting, (2012); Philadelphia, PA.
- 9. Sikoglu, E. M., Liso, A. A., Frazier, J. A., Kennedy, D., **King, J.**, Moore, C. M. Neurodevelopment in healthy children and adolescents. Society of Biological Psychiatry Annual Meeting, (2012); Philadelphia, PA.
- 10. Liso A, Sikoglu E, Kennedy D, **King J**, Frazier J, Moore C. Resting State Functional Connectivity in Pediatric Bipolar Disorder; Society For Neuroscience, (2012); New Orleans, LA
- 11. Liang Z, **King J**, Zhang N. Uncovering intrinsic connectional architecture of functional networks in awake rat brain; INCF (2011); Boston, USA.
- 12. Sikoglu E, Liso A, Zhang N, Kennedy D, Frazier J, **King J** and Moore C. Investigation of NeuroDevelopment using MRS and Functional Connectivity; INCF (2011); Boston, MA
- 13. Liang Z, **King J**, Zhang N. Anticorrelated functional connectivity in awake rat brain; SFN (2011); Washington DC,
- 14. Liang Z, **King J**, Zhang N. Long-term impact of single trauma exposure on the mPFC-amygdala circuit in the rat; Gordon Conference (2011): Amygdala in Health & Disease; Colby College, Maine (Poster Award Winner).
- 15. Liso, A. A., Sikoglu, E. M., Heffernan, M., Zhang, N., **King, J**. A., Moore, C. M. Behavioral assessment in rodent model of attention deficit/hyperactivity disorder following an Omega 3 fatty acid rich diet. Society for Neuroscience (2011) Washington, D.C.
- 16. Sikoglu, E. M., Liso, A. A., Frazier, J. A., Kennedy, D., **King, J.**, Moore, C. M. Neuro-development in healthy human subjects: ¹H MRS study. Society for Neuroscience (2011) Washington, D.C.
- 17. Sikoglu, E. M., Liso, A., Zhang, N., Kennedy, D., Frazier, J., **King, J.**, Moore, C. Investigation of NeuroDevelopment using MRS and functional connectivity. International Neuroinformatics Coordinating Facility (2011) Boston, MA.
- 18. Cochran, D., Fallon, D., Kennedy, D., Zhang, N., Zheng, S., Sikoglu, E. M., Moore, C., **King, J.**, Frazier, J. Glutamate and GABA abnormalities in autism spectrum disorders and their correlation with social cognition deficits— A ¹H Magnetic Resonance Spectroscopic Study APA Research Colloquium for Junior Investigators (2011) Honolulu, HI.
- 19. Meghan Heffernan, Wei Huang, Nanyin Zhang, **Jean King***: Effects of the NMDA Competitive Receptor Antagonist CGP 39551 on Nicotine-dependence. Society for Neuroscience (2010) San Diego, CA.
- 20. Liang Z, Huang, W, **King J**, Fulwiler C, Zhang, N. Impact of anesthesia on resting-state functional connectivity; Society For Neuroscience, (2010); San Diego, CA.

- 21. Heffernan, M, Huang W, Zhang N, **King J**. Effects of the NMDA competitive receptor antagonist CGP 39551 on nicotine-dependence; Society For Neuroscience (2010); San Diego, CA.
- 22. Huang W, DiGirolamo G, Zhang N, DiFranza, J, **King J**. Effect of nicotine administration on cue-induced neural response; Society For Neuroscience (2010); San Diego, CA.
- 23. Rane P, Shield J, Ortiz E, **King J**: Emotional and cognitive deficits observed in early stages of Parkinson's disease. Society for Neuroscience (2007) San Diego, CA.
- 24. Chen W, Olson D, **King J**: MRS identify cortical neurochemical changes in "Parkinsonian" rats. Society for Neuroscience (2007) San Diego, CA.
- 25. Chen W, Kim Y, Schmidt KF, Luo F, Brevard M, **King J**. Neural Basis of Unconditional Fear: Perfusion and Functional Imaging in Aging Rat Bed Nucleus of the Stria Terminalis. International Society of Magnetic Resonance in Medicine (2006) Seattle, WA.
- 26. Harder J, Garelick T, Chen W, **King J**. Imaging fear stress responses in monkeys. Proc. International Society of Magnetic Resonance (2006) Seattle, WA.
- 27. Chen W, Kulkarni P, T. Garelick T, **King JA**. Fear and aging: role of testosterone. Society for Neuroscience (2006) Atlanta, GA
- 28. Luo F, Li Z, **King JA**, Treistman SN, Ferris CF. Imaging changes in cerebral blood volume and cerebral blood flow to acute ethanol and naltrexone administration in rat. Society for Neuroscience (2005) Washington, DC.
- 29. Chen W, Kulkarni P, **King JA**. Brain Activation Associated with the Re-experiencing a Fearful Event. Society for Neuroscience (2005) Washington, DC.
- 30. Colamussi LL, **King JA.** Nicotine-induced sensitization in an animal model of ADHD: an FMRI study in conscious rats. Society for Neuroscience (2004) San Diego, CA.
- 31. Messenger TL, Harder J, **King JA**, Kulkarni P, Ferris CF. Using functional magnetic resonance imaging to map brain areas immediately activated by elevated plasma levels of stress hormone. Society for Neuroscience (2004) San Diego, CA.
- 32. Garelick TS, **King JA**. Imaging conditioned fear in conscious rats. Society for Neuroscience (2004) San Diego, CA.
- 33. Chen W, Graybeil P, Rossi V, Tenney J, **King JA**. Female fear: brain activation across estrus cycle. Society for Neuroscience (2004) San Diego, CA.
- 34. Sullivan RW, Febo M; Kulkarni P, **King JA**, Ferris CFF. Screening and characterizing atypical and typical antipsychotics with magnetic resonance imaging and 3D computational analyses. Society for Neuroscience (2004) San Diego, CA.
- 35. Tenney JR, **King JA**, Brevard ME, Ferris CF Imaging GBL-Induced Absence Seizures In Marmoset Monkeys. Society for Neuroscience (2003) New Orleans, LA.
- 36. Rossi V, Tenney JR, Brevard MR, **King JA.** ADHD Animal Model Differs In Its Sensitivity To Nicotine. Society for Neuroscience (2003) New Orleans, LA.
- 37. Brevard ME, **King JA**, Ferris CF. Imaging the onset of PTZ induced generalized seizure. American Epliepsy Society (2003) Boston, MA.
- 38. Ferris CF, Snowdon C, **King JA**, Sullivan J, Olson DP, Zeigler T, Shultz-Darken N, Tannenbaum P, Ludwig R, Duong TQ. Functional Magnetic Resonance Imaging in Conscious Marmoset Monkeys: Methods and Applications in Neuroscience Research, European Marmoset Research Group Workshop (2002) Paris, France
- 39. Schultz-Darken N, Tannenbaum P, **King J**, Duong TQ, et al. Functional MRI Study of Activation of Neural Pathways Associated with Sexual Arousal in Marmosets: Use of Lemon Odor as a Conditioned Stimulus, European Marmoset Research Group Workshop, (2002) Paris, France.
- 40. Brevard ME, Ives JR, Duong TQ, **King JA**, Ferris CF. Using functional MRI and concurrent EEG to track the initiation and early progression of seizure in a conscious rat. Society for Neuroscience (2002) Orlando. FL.
- 41. **King JA**, Ferris CF, Graybiel P, Tenney J, Duong T. FMRI studies of the fear response. Society for Neuroscience (2002) Orlando, FL.
- 42. Ferris CF, Olson DP, Renshaw PS, **King JA**. Imaging brain activity following cocaine treatment in conscious rats. Society for Neuroscience (2002) Orlando, FL.

- 43. Tenney JR, **King JA**, Duong TQ, Ferris CF. fMRI of the GHB Absence Seizure Model. Society for Neuroscience (2002) Orlando, FL.
- 44. Snowdon CT, Ferris CF, **King JA**, Duong TQ, Ziegler TE, Tannenbaum PL, Schultz-Darken NJ, Olson DP, Ludwig R, Wu Z, Sullivan J, Vaughn JT. The Scent of a Female: Imaging Neural Responses to Sexual Stimuli, Animal Behavior Society Conference, (2001) Way Corvallis, OR.
- 45. Ludwig R, Bogdanov G, Sullivan Jr. JM, Ferris C, **King J**. High-field functional MRI of small animals by a dual RF-coil system. HiRes Imaging in Small Animals (2001) Washington, DC.
- 46. Brevard ME, Ferris CF, Mattingly M, Olson D, Lee RMKW, Zhu G, **King JA**. Magnetic Resonance Imaging of Hemorrhagic Stroke in Conscious Rats (2001) Glasgow, Scotland.
- 47. Ferris CF, Snowdon CT, **King JA**, Duong TQ, Ziegler TE, Olson DP, Ludwig R, Schultz-Darken N, Wu Z, Tannenbaum P, Sullivan Jr. JM, Kim SG, Vaughan Jr. JT. Brain Activity in Fully Conscious Monkeys in Response to Sexual Cues. HiRes Imaging in Small Animals (2001) Washington, DC.
- 48. Ludwig R, Bogdanov G, Sullivan Jr. JM, **King JA**, Ferris C. A coupled microstrip line TEM resonator model for high-field magnetic resonance imaging. HiRes Imaging in Small Animals (2001) Washington, DC.
- 49. **King JA**, Ferris CF, Snowdon CT, Duong TQ, Ziegler TE, Tannenbaum PL, Ludwig R, Schultz-Darken NJ, Wu Z, Sullivan JM, Olson DP, Vaughan JT. Functional imaging of brain activity in conscious monkeys responding to sexually arousing cues. Society for Neuroscience (2001) San Diego, CA.
- 50. Peters DS, Ferris CF, Stolberg TL, Delville Y, **King JA**. Effects of subjugation stress during adolescence on cognition and neuroendocrinology. Society of Neuroscience (1999) Miami Beach, FL.
- 51. Kelly TN, **King JA**, Delville Y, Fray JCS. Developmental alteration in the monoaminergic system in an animal model of ADHD. Society of Neuroscience (1999) Miami Beach, FL.
- 52. Tenney J, Carraway RE, Mattingly M, Olson DP, **King JA**, Zhu G, and Ferris CF. NMR imaging of neurotensin receptors in the brain with newly developed paramagnetic ligand. Society of Neuroscience (1999) Miami Beach, FL.
- 53. Brevard ME, Ferris CF, **King JA**, Olson DP, N'Guemo P, Mattingly M, Zhu G, Lee RM, Ryder EF. Magnetic resonance imaging of hemorrhagic stroke in conscious rats. Society of Neuroscience (1999) Miami Beach, FL.
- 54. Lahti KM, Sotak CH, **King JA**, Ferris CF. Evoked cortical activity in conscious and propofol anesthetized rats using functional MRI. Society of Neuroscience (1998) Los Angeles, CA.
- 55. Mattingly M, **King JA**, Ferris CF, Rycyna R, Olson R. Visualizing brain activation associated with kindling and propagation of epileptic seizure in awake animals using fMRI. Society of Neuroscience (1998) Los Angeles, CA.
- 56. Spinger C, Edwards E, **King JA**, Ferris CF, Lahti K. Imaging depression in fully conscious learned helpless rats using functional MRI. Society of Neuroscience (1998) Los Angeles, CA.
- 57. Ferris CF, Mattingly M, Lahti KM, N'Gouermo P, **King JA**. Visualizing brain activation associated with initiation and propagation of general seizure in awake animals using fMRI. American College of Neuropsychopharmacology (1998) Las Croabas, Puerto Rico.
- 58. **King JA**, Edwards E, Lahti KM, Springer C, Ferris CF. Imaging depression in fully conscious learned helpless rats using functional MRI. American College of Neuropsychopharmacology (1998) Las Croabas, Puerto Rico.
- 59. Lahti KM, Sotak CH, **King JA**, Ferris CF fMRI in conscious rats. Society of Neuroscience (1997) New Orleans, LA.
- 60. **King JA**, Ferris CF, Shtiegman K. Voluntary ethanol consumption during adolescence in golden hamsters elevates blood testosterone and increases aggression in early adulthood. Society of Neuroscience (1997) New Orleans, LA.
- 61. **King JA**, Kellt TN, Delville Y, Adolphe S.. Colocalization of cathecolamines and androgen receptors in the forebrain in an animal model of ADHD. Society of Neuroscience (1997) New Orleans, LA.
- 62. **King JA**, Fray CS, Edwards E. Differential propensity to learned helpless behavior. Society of Neuroscience (1997) New Orleans, LA.

- 63. Lahti KM, Ferris CF, Sotak CH, **King JA**. Blood oxygenation level dependant and cerebral blood flow changes in conscious rats using fMRI. Chemical Conference of Noth America (1997) Saratoga Springs, NY.
- 64. **King JA**, Ferris CF, Delville Y, Adolphe S, and Ray B. Early androgen-induced alterations in stress responsiveness, monoaminergic system, and cognitive performance: Possible basis for ADHD. Society of Neuroscience (1996) Washington, DC.
- 65. **King JA**, Edwards E. Exposure to stress early in development alters HPA axis functioning of adult congenital learned helpless rats. Society Of Neuroscience (1995) San Diego, CA.
- 66. Johnson K, Pellerin L, Abend S, **King JA**, Johnson S, Eccles C, and Edwards E. Development of a potential animal model of post traumatic stress disorder. Society of Neuroscience (1995) San Diego, CA.
- 67. Laforet GA, Edwards E, **King JA**, Rivera DT. Stress-related hippocampal expression of plasticity-realted markers on congenital learned helpless and resistant rats. Society of Neuroscience Abstracts (1995) San Diego, CA.
- 68. **King JA**, Edwards E, Abend SL, Fray JCS. Modulation of cellular cardiovascular components and HPA axis in congenital learned helpless rats exposed to early stress. Society of Neuroscience (1994) Miami Beach, FL.
- 69. **King JA**, Campbell D, Henn FA, Edwards E. Differential development of the stress response in Congenital learned helpless ness. Society of Neuroscience (1991) New Orleans, LA.
- 70. Strand FL, Frischer RE, **King JA**, Rose KJ. Early exposure to ACTH peptides modifies neuromuscular development. Winter Neuropeptide Conference (1987) Breckenridge, Colorado.
- 71. Frischer RE, Rose KJ, **King JA**, Segarra A, Strand FL. Multidimensional effects of pre- and postnatal nicotine administration in the rat. Frontiers of Neuroscience AAAS (1987) Chicago.
- 72. **King JA**, Strand FL. Increased ACTH plasma levels with prenatal and postnatal nicotine administration. Fourth Colloquium in the Biological Sciences. The New York Academy of Sciences (1983) New York, NY.
- 73. Rose KJ, Frischer RE, **King JA**, Strand FL. A critical period for nicotine and ACTH peptides in rat neuromuscular development: electrophysiological, morphological and behavioral aspects. Society of Neuroscience (1986) Washington, DC.
- 74. Strand FL, Frischer RE, **King JA**, Rose KJ. Neuropeptides integrate motor function and structure during development. Symposium Neuropeptides and Brain Function. Utrecht (1986) The Netherlands.
- 75. **King JA**, Strand FL. Nicotine depression of motor activity. Winter Neuropeptide Conference (1985) Breckenridge Colorado.
- 76. **King JA**, Strand FL. ACTH peptides differentially accelerate maturation of motor activity in habituated versus naïve infant rats. Society of Neuroscience (1984) Anaheim, CA.

Committee Assignments and Administrative Service

Grant Review Committees: International Reviewer

Research Council, United Kingdom	2013
National Foundation of Science of Israel	2013
National Foundation of Science of Israel	2010
Netherlands Organization for Scientific Research	2010

Grant Review Committees: NIH Study Sections	
Neurobiology of Learning and Memory NIH Study Section (LAM)	2012-2018
*Regular Member Integrative, Functional and Cognitive Neuroscience NIH Study Section IRG (IFCN), Ad hoc	2010
Emerging Technologies and Training in Neuroscience NIH Study Section Ad hoc	2010
K-awards NIDA Study Section Ad hoc	2009
Clinician Scientist Award Ad hoc	2004
Biobehavioral and Behavioral Processes 1 [BBBP-1] Study Section, NIMH Regular Member	2003-2008
Special Emphasis Panel- NIDA Cognitive Neuroscience Council ZNS1 SRB-A 01 1 Ad hoc	2002; 2005
Grant Review Committees: National Reviewer	
US Veterans Administration	2006
National Science Foundation	2000
University of Maryland (small grant program)	1999
National Service: Advisory Roles, Planning Committees, and Work Groups	
External Advisory Board, Member Institute of Neurobiology University of Puerto Rico Medical Sciences Campus	2012-present
Bioinformatics and Biomedical Engineering Conference Boston, MA. Planning Committee, <i>Member</i>	2011
Society for Neuroscience Conference, Session Chair Model of Parkinsons Disease	2007
NIH- Health Disparities Work Group-Cognitive and Emotional Health in Minority Children Bethesda MD	2001
Health and Human Services (HHS) Workshop Panel On Women's Health in Medical School Curriculum	1994
Margaret Beale Spencer Symposium, Chair Minority Children: Poverty, Race and Health University of Pennsylvania, Philadelphia, PA	1993
NIH Office of Research On Women's Health Roundtable Workgroup on Education	1992
American Psychological Association Women's Health Conference Advisory Committee	1995

1992

School Academic Service (University of Massachusetts Medical School): Advisory Committees

Chancellors Distinguished Service Award Selection Committee, Member	2013
UMCCTS Research Retreat Planning Committee, Member	2013
Dean and Provost's Review Committee	2013
Faculty Diversity Leader Stakeholder Committee, Member	2012-present
Mentoring Advisory Board, UMMS, Member	2011-present
Advanced MRI Center Oversight Committee (Radiology Department)	2011-present
Faculty Recruitment Process Committee, Member	2011-present
Advance Committee, Grant on Micro inequities, Member	2011
Chancellor's Medal for Distinguished Service Selection Committee, Member	2011
Translational Medicine Conference: Planning Committee <i>Member</i> The Next Generation of "From Bench to Bedside"	2010
Faculty Diversity Scholars Program (FDSP), <i>Member</i> (2008-) Advisory Board, <i>Co-Chair</i> (2011-)	2008-present
African American Women students (UMMS- Graduate Students), Mentor	2008-2009
Faculty Diversity Scholars Program (FDSP), <i>Member</i> Advisory Board	2008-present
Faculty Advancement Department Liaisons Committee (UMMS) Departmental Representative from Psychiatry	2007-present
Womens Leadership Work Group Planning Committee (leadership seminar)	2007
Human Subjects Committee, Member	1995-1998

School Academic Service (University of Massachusetts Medical School): Search Committees

Search Committee, Chair of Pediatrics, Member	2012-present
Search Committee, Radiology Department, Member	2010-2012
Search Committee, Vice Provost for Faculty Affairs, Co-Chair	2009-2010
Search Committee-Director of Animal Medicine	2002

School Academic Service (University of Massachusetts Medical School): Medical Education Committees

Task Force Faculty subcommittee for self-study of the 2012 LCME Accreditation University of Massachusetts Medical School	2011
Task Force Diversity subcommittee for self-study of the 2012 LCME Accreditation University of Massachusetts Medical School	2011
Liaison Committee on Medical Education Faculty subcommittee Standards for Accreditation	2011
Selection Committee for MD/PhD Students, Interviewer	2010
Admission Committee, UMass Medical School, Interviewer	1998-present
Selection Committee for NIH Summer Fellowships	1994-present

Department of Psychiatry Academic Service (University of Massachusetts Medical School)

Psychiatry Research Day, <i>Chair</i> Creating Healthier Communities: Integrative Behavioral Health	2012-present
Community Engagement workgroup, Member	2011-present
Clinical Research Advisory Committee, Member	2010
Psychiatry Research Day, <i>Chair</i> Women's Mental Health: Addressing Disparities in Psychiatry	2010
Psychiatry Research Day, <i>Chair</i> Wellness and Mindfulness in Psychiatry	2009
Research Leadership in Psychiatry, Chair	2009
Steve Banks Award for Research Mentoring Committee, Chair	2008-present
Area Interest Group-Imaging in Psychiatry, Co-Leader	2008-2012
Psychiatry Research Day, <i>Chair</i> From Bench to Bedside	2008
Strategic Plan For Faculty and Staff Career Development, Co-Leader	2008
Vice Chair for Research	2007-present
Executive Committee in Psychiatry	2007-present
Women Faculty in Psychiatry, Chair	2007-present
Executive Committee-CMHSR, Member	2007-2010
Tenure-Track Faculty Search Committee, Chair	2007-2010
Department of Psychiatry Faculty Search Committee, Chair	2007-2008
Strategic Planning Education Group, Co-Chair	2007
Implementation Team - Education Group, Co-Chair	2007
Departmental Personnel Action Committee (acting chair)	(as needed)

Psychiatry Research Day, <i>Chair</i> Translational Research in Psychiatry: Bridging Basic Science, Clinical, And Health Services Research	2007
Search Committee Director of Psychology, University of Mass. Med. Center	1999
Personnel Action Committee	1996-present
Grand Rounds Committee	1996-present
Women's Issue Committee in Psychiatry, Co-Chair	1995-1996

Community Service

Daybreak Resources for Women and Children (Roles and Responsibilities) Worcester, MA

Daybreak Women's Words Week, <i>Chair</i> (Week of Art, Film and Authors-Featuring Women of Central MA)	2010
Daybreak Resources for Women and Children/ YWCA Committee, Member	2009-present
Daybreak Resources for Women and Children Committee, <i>Chair</i> "Shelter is Not a Home Program"	2006
Daybreak Resources for Women and Children, Chair Great Guys Award (Annual Award/Fundraising Event)	2000-2005
Daybreak Resources for Women and Children/YWCA Committee, Chair	1998-2009
Daybreak Women's Author Evening, <i>Chair</i> (Annual Fundraising Event- featuring National Women Authors)	1997-present
Daybreak Resources for Women and Children, <i>Chair</i> Breakfast Committee (Fundraising Event)	1997-2009
Daybreak Resources for Women and Children, Board of Directors Worcester, MA	1994-1996

Museum of Science (Ecotarium) (Roles and Responsibilities) Worcester, MA

Museum of Science (Ecotarium), 1825 Society	2009-present
Museum of Science Board of Directors, Member	2004-present
Museum of Science (Ecotarium), <i>Member</i> Program and Marketing Committee	2004-present
Museum of Science (Ecotarium), Cooperator	2004-present

Worcester Art Museum, Worcester, MA (Roles and Responsibilities)

Worcester Art Museum, <i>Cooperator</i> Worcester Art Museum – Diversity Program	2012-present 2013
Girls Incorporated, Worcester, MA, (Roles and Responsibilities)	
Worcester, MA	
Girls Inc, Consultant to Executive Director	2007- 2012
Girl's Incorporated, Worcester, MA Search Committee- Executive Director	2000
Board of Directors -Girls Inc., Vice-President	2000
Girls Inc., Board of Directors - Exec. Committee	1996-2004
Board of Directors -Girls Inc., Member	1996- 2001
YWCA Central Massachusetts (Roles and Responsibilities)	
Worcester, MA	
YWCA- Program Committee	2004- 2007
Board of Directors -YWCA, Member	1996-2004
National Black Women's Health Project (Roles and Responsibilities)	
Atlanta, GA	
Board of Directors, Elected Chair	1992-1994
National Black Women's Health Project (International Health Organization with Chapters in 33 states and 7 countries)	1002 1004
Board of Directors	1000 1004
National Black Women's Health Project	1990-1994
National Black Women's Health Project, Chair SisteReach (Health Programs for Women across the Diaspora)	1990-1995
Other Organizations (Roles and Responsibilities) Worcester, MA	
RSVP Volunteers, Board Member	2012-present
Greater Worcester Community Agency, Cooperator	2007-present
Director of the Jane Dow Fund, Search Committee Member (Domestic Violence Umbrella Agency Boston, MA)	1997