

**Wake Forest School of Medicine
Curriculum Vitae**

NAME: Paul J. Laurienti, M.D., Ph.D.

**CURRENT
ACADEMIC TITLE:** Professor, Department of Radiology

ADDRESS: Department of Radiology
Division of Radiologic Sciences
Wake Forest University School of Medicine
Medical Center Boulevard
Winston-Salem, North Carolina 27157-3972
Telephone: (336) 716-3261
E-mail: plaurien@wakehealth.edu

EDUCATION:

College: University of Colorado at Denver 1986-1987
University of Houston 1987-1991
Houston, Texas
B.S. (Psychology)

Graduate School: Neuroscience Graduate Program 1991-1995
University of Texas Medical Branch
Galveston, Texas
Ph.D.

Dissertation Title: Physiologic Properties and Serotonergic Modulation of the
Parapodial Neuromuscular Junction in *Aplysia Brasiliana*
Dr. James E. Blankenship, Ph.D. - Adviser

Predoctoral: Predoctoral Fellow 1994-1995
NINDS Training Grant
Neuroscience Graduate Program
Marine Biomedical Institute
University of Texas Medical Branch
Galveston, Texas

Honors and Awards: National Student Research Forum's Anatomy 1995
and Neuroscience Poster Award
George Sealy Research Award in Neurology 1995
Galveston Chapter Poster Award 1995
Society of Neuroscience
James E. Beall II Memorial Award in 1996
Anatomy and Neurosciences

Medical School: University of Texas Medical Branch 1995-1999
Galveston, Texas
M.D.

Honors and Awards:	Dean's List	1996, 1997, 1998, 1999
	Honors Graduate	1999
	Alpha Omega Alpha	1998
	Phi Kappa Phi	1998

POSTDOCTORAL TRAINING:

Residency:	Department of Radiology Wake Forest School of Medicine Winston-Salem, North Carolina	1999
Fellowship:	Postdoctoral Fellow National Institute of Health Training Grant Department of Neurobiology and Anatomy Wake Forest School of Medicine Winston-Salem, North Carolina Mentor: Dr. Barry Stein	1999-2000

PROFESSIONAL LICENSURE:

United States Medical License Passed USMLE Parts I, II	1997, 1999
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ACADEMIC APPOINTMENTS:

Assistant Instructor School of Allied Health Sciences Division of Human and Basic Science University of Texas Medical Branch Galveston, Texas	1994
Consulting Scientist to Jin Mo Chung, Ph.D. Marine Biomedical Institute University of Texas Medical Branch Galveston, Texas	1997
Research Associate Department of Radiology Wake Forest School of Medicine	2000-2002
Assistant Professor Department of Radiology Wake Forest School of Medicine	2002-2006
Associate Department of Biomedical Engineering Division of Radiologic Sciences Wake Forest School of Medicine	2003-present
Associate Professor Department of Radiology Wake Forest School of Medicine	2006-2011
Professor Department of Radiology Wake Forest School of Medicine	2011-present

PROFESSIONAL APPOINTMENTS AND ACTIVITIES:

National:

NIH Study Sections

MEDI Study Section	
Ad hoc	2004-2006
Charter Member	2006-2010
NCCAM Study Section	2004
Grant Reviewer	
Neuroscience Blueprint Center	2006
NINDS Study Section	
Neuroscience Blueprint Software Design	2007
NINDS Study Section	
Psychosocial Risk and Disease Prevention (PRDP) Study Section	Sept 2010
Clinical/Translational Study Section	June 2011
Grant Reviewer	
Outstanding New Environmental Scientist Award	June 2018
NIEHS Special Emphasis Panel	
Neural Control of Mobility in Aging	July 2018
NIA Special Emphasis Panel	
Next Generation Clinical Researchers AD/ADRD	Oct 2018
NIA Study Section	
Superfund Research Program	June 2019
NIEHS Special Emphasis Panel	

NSF Study Sections

Major Instrumentation Grant Review	April 2013
Study Section Member	
Cognitive Neuroscience Study Section	March 2017
Grant Reviewer	
CRCNS Study Section	March 2022
Grant Reviewer	

VA Study Sections

Neurodegenerative Diseases Rehabilitation	March 2017
Research Study Section	
Grant Reviewer	
Neurodegenerative Diseases Rehabilitation (SPiREs) Review Group	April 2017
Small Projects in Rehabilitation Research (SPiREs) Review Group	Oct 2017

NIH Advisory Committees

ACCORD-MIND Clinical Trial Planning Committee 2002
Bethesda, Maryland
Member

NIH/NIDA Institutional Review Board 2005
Member

Other National Committees

Claude Pepper OAIC 2010-2011
University of Pittsburgh
Grant Reviewer

Complenet 2012
Workshop on Complex Networks 2015
Program Committee 2016

Carolinas Medical Center 2013
University of North Carolina Charlotte
Brain Behavior and Neurosciences Focus Group

Cal-BRAIN Seed Grant Program 2015
Grant Reviewer

UT-BRAIN Seed Grant Program 2015
Grant Reviewer

16th Annual NIEHS Science Day 2018
Abstract Reviewer and Judge

Complex Networks 2020
Program Committee 2021
2022

International:

Ireland Health Research Board 2009
Grant Reviewer

Experimental and Translational Medicine 2010
Scottish Government
Grant Reviewer

External Member Dissertation Committee 2010
Concordia University, Dept. Psychology
Montreal, Canada
External Member Dissertation Committee

Leading Causes of Life Initiative 2013-present
Winston Salem, NC / Cape Town, South Africa
<http://www.leading-causes.com>
Fellow

European Science Foundation 2014
Grant Reviewer

Ireland Health Research Board 2016
Grant Reviewer

Deutsche Forschungsgemeinschaft Grant Reviewer	2016
Deutsche Forschungsgemeinschaft Grant Reviewer	2020
Israel Science Foundation Grant Reviewer	2022

Industry:

Clostra (CLOSTRA.com) Scientific Advisor	2020
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Editorial work:

Associate Editor of Brain Imaging Methods Section <i>Frontiers in Neuroscience</i> <i>Frontiers in Neurology</i> <i>Frontiers in Neuroimaging</i>	2023-present
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Editorial board

<i>Brain Sciences</i> (ISSN 2076-3425)	2021-present
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Ad hoc reviewer

Brain Research
Brain Tomography
Cerebral Cortex
Cognitive Neurodynamics
Cognitive Processing
Computational and Mathematical Methods in Medicine
Drug and Alcohol Dependence
European Journal of Neuroscience
Engineering
Experimental Aging
Experimental Brain Research
Frontiers in Integrative Neuroscience
Frontiers in Physics
Human Brain Mapping
IEEE Transactions on Neural Systems & Rehabilitation
Journal of the American Geriatrics Society
Journal of Cognitive Neuroscience
Journal of Experimental Psychology: Human Perception and Performance
Journal of Neurophysiology
Journal of Neuroscience
Network Neuroscience
Neurobiology of Aging
NeuroImage
Neuropsychologia
NeuroReport
Neuroscience
Neurotoxicology

Nuclear Medicine and Molecular Imaging
PLoS One
PLoS Computational Biology
Perception and Psychophysics
Psychosomatic Medicine
Scientific Reports
Statistical Analysis and Data Mining

INSTITUTIONAL SERVICE:

Faculty Appointments:

J. Paul Sticht Center on Aging and Rehabilitation Wake Forest School of Medicine	2008-present
Diabetes Research Center Wake Forest School of Medicine	2009-present
Translational Science Center Wake Forest University - Reynolda Campus	2009-present
Translational Science Institute Wake Forest School of Medicine	2010-present
Center for Bimolecular Imaging Wake Forest School of Medicine	2012-present
Center for Integrative Medicine Wake Forest School of Medicine	2012-present

Directorships/Chairmanships:

Director Functional Magnetic Resonance Imaging Lecture Series Wake Forest School of Medicine	2001-2003
Associate Director Medical Student Research Training Program Wake Forest School of Medicine	2005-2006
Associate Director ANSIR Laboratory Wake Forest School of Medicine	2006-2008
Assistant Vice Chairman Radiology Research, Department of Radiology Wake Forest School of Medicine	2006-2009
Co-Director MMS/PhD Program Wake Forest School of Medicine	2009-2011
Director MD/PhD Program Wake Forest School of Medicine	2006-2012
Director Medical Student Research Training Program (T35DK007400) Wake Forest School of Medicine	2009-2012

Chair	2012
Research Awards Day Committee Wake Forest School of Medicine	
Director	2009- present
Laboratory for Complex Brain Networks (LCBN) Wake Forest School of Medicine	
Director	2010-present
Research Core for Translational Science Center Wake Forest University Reynolda Campus	

Dean Appointed Committee:

General Clinical Research Center Advisory Committee Wake Forest School of Medicine	2005-2011
Institutional Review Board Wake Forest School of Medicine	2006-2007
Graduate School of Biomedical Science Wake Forest School of Medicine	2006-2011
Wake Forest University Independent Data Safety and Monitoring Board Wake Forest School of Medicine	2008-2012
Intramural Research Support Committee Wake Forest School of Medicine	2008-2010
Wake Forest University Independent Data Safety and Monitoring Board <i>ad hoc</i> Wake Forest School of Medicine	2012-2015
Research Advisory Council Wake Forest School of Medicine	2012-2015
Centers and Cores Advisory Committee Wake Forest School of Medicine	2016-2017
Committee on Women in Science and Medicine Wake Forest School of Medicine	2016-2017

Other Committees and Service:

Member Center for Investigative Neuroscience Wake Forest School of Medicine Winston-Salem, North Carolina	2001-2004
Interviewer Medical School Admissions Wake Forest School of Medicine	2001-2005
Member Neuroscience Graduate Program Faculty Wake Forest School of Medicine	2001-present
Member Kulynych Intramural Grant Review Committee Wake Forest School of Medicine	2002-2003

Member Neuroscience Graduate Program Admissions Committee Wake Forest School of Medicine	2002-2005
Member Graduate School Faculty Wake Forest School of Medicine	2002-present
Advisory Board Member Kulynych Center for Memory and Cognition Research Wake Forest School of Medicine	2002-2009
Counselor Western North Carolina Society for Neuroscience Wake Forest School of Medicine	2003-2004
Faculty Advisor MD/PhD Program Wake Forest School of Medicine	2003-2005
Member Translational Science Institute Committee Novel and Clinical Translational Methodologies Wake Forest School of Medicine	2006-2008
Member Pepper OAIC Data Safety and Monitoring Board Wake Forest School of Medicine	2006-present
Member J. Paul Sticht Center on Aging Wake Forest School of Medicine	2007-present
Member Translational Science Institute Committee Research Education, Training and Career Development Wake Forest School of Medicine	2008-2010
Member Center for Diabetes Research Wake Forest School of Medicine	2009-present
Reviewer Internal Mini-Study Section Office of Research Wake Forest School of Medicine	2009
Ad hoc Member Committee on Admissions Wake Forest School of Medicine	2010-2012
Graduate School Reorganization Task Force Wake Forest School of Medicine	2010
Member Neurosciences Graduate Executive Committee	2010-present
Member Center Integrative Medicine Wake Forest School of Medicine	2012-present

Search Committee Member McCreary Endowed Chair Department of Psychiatry and Behavioral Medicine Wake Forest School of Medicine	2013-2014
Member Pepper OAIC Advisory Committee Wake Forest School of Medicine	2014-2018
Member Centers and Cores Advisory Committee Wake Forest School of Medicine	2016-2017
Member Women in Medicine and Science Wake Forest School of Medicine	2016-2017
Member Center for Research on Substance Use & Addiction Wake Forest School of Medicine	2016-present
Member Research Day Awards Committee Wake Forest School of Medicine	2019
Member Research Day Awards Committee Wake Forest School of Medicine	2020

Institutional Development:

Brain Training 101 Half Century Club Founders' Day Program Wake Forest University, Winston Salem, NC	02/2011
Is Brain Fitness the Fountain of Youth Dean's Forum, Bridger Field House Wake Forest University, Winston Salem, NC	02/2011
Breaking Brains Planned Gift Advisory Council Wake Forest Baptist Medical Center Winston Salem, NC	10/2013
Aging Brain Translational Science Center's Speakers Bureau Archdale Senior Center, Archdale, NC	12/2013
Memory: It's About Your Brain and Your Body Dean's Forum, Bridger Field House Wake Forest University, Winston Salem, NC	03/2014
Memory: It's About Your Brain and Your Body Lexington Medical Center Foundation Lexington Medical Center, Lexington, NC	05/2014
Rethinking the Brain Homecoming and Reunion Weekend Wake Forest University, Winston Salem, NC	09/2014

Engage Magazine Cover Story Wake Forest Baptist Medical Center Devel. Office Video Interview: https://vimeo.com/111744750	12/2014
Memory: It's About Your Brain and Your Body Dean's Forum, Bridger Field House Wake Forest University, Winston Salem, NC	03/2014
Memory: It's About Your Brain and Your Body Lexington Medical Center Foundation Lexington Medical Center, Lexington, NC	05/2014
Connected Systems WFBMC Comprehensive Campaign Launch Celebration, Winston Salem, NC https://vimeo.com/141178258	10/2015
Spreading Complexity: Bringing Network Neuroimaging to Interdepartmental Collaborations at Wake Forest Dean's Research Symposia Series – Radiology Wake Forest University, Winston Salem, NC	11/2020

PROFESSIONAL MEMBERSHIPS AND SERVICE:

Texas Society for Biomedical Research UTMB Student Chapter	1993-1995
Society for Neuroscience, Galveston Chapter	1993-1996
Sigma Xi National Research Honor Society	1993-present
Society for Neuroscience	1993-2010
American Medical Association	1995-1999
Texas Medical Association	1995-1999
Organization for Human Brain Mapping	2000-2015
International Multisensory Research Forum	2002-2015
Western North Carolina Society for Neuroscience	2003-present
Research Society on Alcoholism	2020-present

HONORS AND AWARDS:

The National Institutes of Health LRP Scholar	2003-2009
Wake Forest University "New Investigator in Clinical Sciences Award"	2005
Wake Forest University "Outstanding Mid-Career Faculty Research Award"	2011
Linda and Phillip Lader Renaissance Weekend Fellow	2012
Wake Forest University "Team Science Award"	2014
Academy of Radiology Research Distinguished Investigator Award	2016
Wake Forest University "Team Science Award"	2017

SELECTED MEDIA COVERAGE:

Caffeine National Geographic Cover Story	01/2005
A Brain on Caffeine Current TV Segment https://www.youtube.com/watch?v=2QkvclQrEBk	03/2006
Caffeine's Effects on the Human Brain ABC News reported by Lisa Stark http://abcnews.go.com/WNT/video/caffienes-effects-human-brain-interacts-blood-flow-lisa-stark-health-16141081	04/2012
Emergency Room Cases Involving Energy Drinks Increase ABC News reported by Lisa Stark http://abcnews.go.com/WNT/video/emergency-room-cases-involving-energy-drinks-increase-18233110	01/ 2013
Untangling the Human Connectome Genetic Engineering & Biotechnology News Interview for Special Report http://gen.epubxp.com/i/400822-nov1-2014/49?m4=	11/2014
Brain Volume Predicts Successful Weight Loss in the Elderly – Science Daily https://www.sciencedaily.com/releases/2016/11/161102130440.htm	11/2016
WFU study highlights the power of beets Winston-Salem Journal Article https://www.journalnow.com/home_food/columnists/michael_hastings/wfu-study-highlights-the-power-of-beets/article_34c918a5-0ca2-5316-87d4-ed88f194b7c7.html	05/2017
Solution: 'The Slippery Math of Causation' Quanta Magazine Article by Pradeep Mutalik https://www.quantamagazine.org/the-math-of-causation-puzzle-solution-20180629/	06/2018
Coverage of Edited Special Issue of Brain Connectivity https://phys.org/wire-news/313493560/new-research-on-the-role-of-connectomics-in-brain-development.html and https://www.eurekalert.org/pub_releases/2019-03/mali-uct032619.php	03/2019
NIEHS 2019 Grantee Highlight Paul Laurienti 'Paul Laurienti, M.D., Ph.D. - Addressing Health Disparities of Farmworkers and their Families' https://www.niehs.nih.gov/research/supported/translational/peph/grantee-highlights/2019/index.cfm	06/2019

PROFESSIONAL INTERESTS:

Dr. Laurienti is the Director of the Laboratory for Complex Brain Networks (LCBN). In 2006, Drs. Paul Laurienti, Jonathan Burdette and Satoru Hayasaka began to discuss how chaos theory might help explain emergence and complexity in the human brain. Through their discussions,

they began looking for ways and methods that could capture these non-linear processes. Where traditional neuroscience could use functional magnetic resonance imaging (fMRI) to take snapshots of the brain, it was not sufficient for capturing and studying the brain's dynamic complexity. However, an emerging area of research called Network Science was offering methods and means to quantify and analyze dynamic systems. Believing that no single cognitive process could be isolated without affecting the rest of the brain's system, they moved forward in 2009 to create the Laboratory for Complex Brain Networks. Utilizing state-of-the-art technology, the LCBN collaborates with other national and international scientists to envision and develop new and innovative methods for studying and analyzing emergence in brain networks as well as other complex systems. Ongoing studies use whole-brain connectivity to identify critical network nodes, network neighborhoods, and dynamic changes that occur under various cognitive states. Network science is proving to be a powerful tool for assessing brain structure and function and the LCBN is currently evaluating how dynamic changes in network connectivity may be critical for aging, substance abuse, and the toxic effects of pesticides.

GRANTS - CURRENT:

PI or Primary Co-Investigator

P50 AA026117 NIAAA	12/10/2017 - 11/30/2027 \$301,423 annual (Project 1)	22% effort
Dynamic functional brain network phenotypes associated with vulnerability to hazardous alcohol consumption. This project is a continuation of the human neuroimaging studies examining brain networks associated with drinking behaviors in the Wake Forest Translational Alcohol Research Center (WF-TARC). The overarching hypothesis of this proposal that the vulnerability to develop hazardous drinking is manifest in dynamic network connectivity within and between the default mode network (DMN) salience network (SN) and the sensorimotor network (SMN). Principal Investigator: Jeffrey Weiner Project PI: Paul Laurienti		
R01 AA029926 NIH/NIAAA	09/15/2021 - 08/31/2025 \$333,774 annual	25% effort
CRCNS: Multiplexed Impervious Functional Network Complements Brain Function for Tensioned Stability of Neural Information Processing We will put forward a new description of brain function that can explain the agile functionality whereby we can dwell on a task, and also divert to other tasks, nimbly and seemingly abruptly depending on input. The complementary tools of correlation analysis and causation entropy (CSE) based information flow analysis gives a computationally valid paradigm whereby we will analyze these elements in the multilayer brain network using fMRI data from human subjects Co-Principal Investigator: Paul Laurienti / Erik Bolt		
R01 ES008739 NIH/NIEHS	03/01/2013 - 05/31/2024 \$563,104 annual	0% effort
The Effect of Pesticide Exposure on Cognitive and Brain Development in Latino Children: PACE5 This proposal is an extension of the work that we have performed over the past 20 years (R01ES008739-19) and will evaluate the effects of pesticide exposure on neurobehavioral and brain development in children in Latino farmworker families. Co-Principal Investigator: Paul Laurienti / Thomas Arcury		

- R01 ES008739-24S1 06/01/2022 - 05/31/2024 0% effort
 NIH/NIEHS \$220,838 annual
 The Effect of Pesticide Exposure on Cognitive and Brain Development in Latino Children: PACE5 Administrative Supplement 2
 This administrative supplement provides an extra year of funding to cover the delay in data collection and analysis for the PACE 5 study due to the COVID-19 pandemic.
 Co-Principal Investigator: **Paul Laurienti** / Thomas Arcury
- R01 AA027705 09/20/2019 - 08/31/2024 10% effort
 NIH/NIAAA \$41,748 annual
 Longitudinal Investigation of TMS As a Tool To Improve Alcohol Treatment Outcomes
 The results of this study will be used to determine which of the 2 proposed TMS strategies has a larger effect on drinking behavior (% days abstinent, % heavy drinking days) as well as alcohol cue-reactivity in a 4 month period. These data will pave the way for TMS to be used as an innovative, new treatment option for individuals with AUD.
 Co-Principal Investigators: Merideth Addicott / **Paul Laurienti**
- R01 AG076669 04/15/2022 - 03/31/2027 5% effort
 NIH/NIA \$763,265 annual
 Establishing the optimal frequency of dance movement for neurocognitive and physical outcomes in people at risk of Alzheimer's disease.
 This proposal seeks to fill key gaps in our basic understanding about the effects of the number of times per week people engage in dance movement on cardiorespiratory fitness and cognition that are essential for planning larger, definitive trials.
 Principal Investigator: Christina Hugenschmidt
 Role: Co-Investigator
- R01 DA047149 08/01/2023 - 04/30/2024 5% effort
 NIH/NIDA \$400,611 annual
 Role of cannabis on HIV-related cognitive impairment: a brain connectomics study
 Marijuana, the mostly commonly abused drug among HIV-infected persons, may accelerate the development and progression of neurocognitive impairments. This study applies a connectomics approach to examine how HIV and marijuana interact to disrupt neural networks that underlie cognitive functioning, with implications for the development of improved diagnostics and treatments.
 Principal Investigator: Christina S. Meade
 Role: Co-Investigator
- R01 DA045565 08/01/2023 - 01/31/2024 8.3% effort
 NIH/NIDA \$280,896 annual
 MRI data fusion to investigate effects of drug abuse on HIV neurological complications
 Nearly half of HIV-infected Americans experience neurocognitive impairments that impact daily functioning, and the prevalence is even higher among persons who are addicted to stimulant drugs. Using innovative multimodal data fusion approaches, this study will identify the distinct and shared neural signatures of HIV neurological disease and cocaine use disorder that are predictive of neurocognitive impairment. Capitalizing on existing datasets, this project has strong potential to identify appropriate neural biomarkers to facilitate diagnosis and treatment of HIV-associated neurocognitive impairments in active drug users.
 Principal Investigator: Christina S. Meade
 Role: Co-Investigator

K25 EB032903

03/01/2023 - 02/28/2027

0% effort

NIH

\$144,490 annual

Statistical Methods for Whole-Brain Connectivity Analysis

The K25 proposal is focused on developing new methodology to improve whole-brain dynamic connectivity analyses of normal and abnormal brain function, which is vital for understanding various brain disorders and may help identify biomarkers and inform early prevention and treatment.

Principal Investigator: Heather Shappell

Role: Primary Mentor

GRANTS - PENDING:

None

PAST GRANT HISTORY:PI or Primary Co-investigator

Dana Foundation

11/01/2002 - 05/31/2006

Evaluating sensory dysfunction in aging using combined fMRI and MRS image analyses

Principal Investigator: **Paul Laurienti**

Total Grant Amount: \$100,000

R21 NS044149

06/01/2004 - 05/31/2006

NINDS

Alteration of cross-modal sensory processing in dyslexia

Principal Investigator: Jonathan Burdette

Total Grant Amount: \$403,535

WFUBMC GCRC

10/01/2004 - 03/31/2008

The Effect of Aging on Cross-Modal Sensory Processing

This was a supplement awarded to cover expenses for MRI costs for the grant K08 NS42568

Principal Investigator: **Paul Laurienti**

WFUBMC GCRC

04/15/2006 - 03/31/2008

Training Multisensory Processing in Older Adults (B-FIT) Supplement

Principal Investigator: **Paul Laurienti**

K08 NS42568

04/01/2003 - 03/31/2009

NINDS

The Effect of Aging on Cross-Modal Sensory Processing

Principal Investigator: **Paul Laurienti**

Total Grant Amount: \$654,293

R21 AG026353

04/15/2006 - 03/31/2009

NIA

Training Multisensory Processing in Older Adults (B-FIT)

Principal Investigator: **Paul Laurienti**

Total Grant Amount: \$431,351

R01 DA020074

04/10/2006 - 12/31/2009

NIDI

Decision Making in Marijuana Users

Principal Investigator: Linda Porrino
Total Grant Amount: \$1,504,017

R01 EB03880 04/18/2005 - 01/31/2010

NIBIB

Effect of Caffeine on functional and Perfusion MRI

Principal Investigator: **Paul Laurienti**

Total Grant Amount: \$1,250,000

WFUBMC GCRC 04/18/2005 - 01/31/2010

Effect of Caffeine on functional and Perfusion MRI

This was a supplement awarded to assist with participant screening and testing for R01 EB03880.

Principal Investigator: **Paul Laurienti**

R21 NS056272 07/01/2007 - 06/30/2010

NINDS

MR Imaging and Genotype/Phenotype Association in a South African Dyslexia Cohort

Principal Investigator: Jonathan Burdette

Total Grant Amount: \$353,356

Subcontract 08/01/2007 - 07/31/2010

NIH/U54RR021813 Toga (PI)

Identifying Age Related Atrophy Using Levelset Registration of Embedded Maps

Subcontract PI: **Paul Laurienti**

Total Grant Amount: \$218,921

R21 NS059793 09/20/2008 - 08/31/2010

NINDS

Development of a Power Calculation Tool for Neuroimaging Studies

Principal Investigator: Satoru Hayasaka

Total Grant Amount: \$269,360

Translational Science Award 07/01/2010 - 06/30/2011

WFU Translational Science Institute

Examining the Collaboration Network at Wake Forest School of Medicine

Principal Investigator: **Paul Laurienti**

Total Grant Amount: \$68,000

R01 NS039426 09/30/2009 - 09/29/2011

NINDS

Supraspinal Processing of Sensory Aspects of Pain

Principal Investigator: Robert Coghill

Total Grant Amount: \$168,986

HHSN 268200900040C 09/14/2009 - 10/31/2012

NHLBI

Systolic Blood Pressure Intervention Trial (SPRINT)

Principal Investigator: David Reboussin

Total Grant Amount: \$13,711,469

R01 NS058700 04/01/2008 - 03/31/2013

NINDS

Genetic Epidemiology of Cerebrovascular Disease and Cognition in Diabetes
Principal Investigator: Donald Bowden
Total Grant Amount: \$3,038,706

Intramural Research 07/01/2011 - 06/30/2013
Support Committee Award
Wake Forest School of Medicine
The Effects of Moderate Alcohol Use on Age Related Cognitive Decline
Principal Investigators: **Paul Laurienti** and Linda Porrino
Total Grant Amount: \$19,826

TSC Beetroot Juice Project 04/01/2013 - 06/30/2014
WFU Translational Science Center
Beetroot Juice as a Supplement to Exercise Training in Older Individuals with Hypertension
Principal Investigator: **Paul Laurienti**
Total Grant Amount: \$97,604

Industry Contract 09/01/2013 - 08/31/2014
The Hershey Company
Effects of a Cocoa Shot on the Human Brain
Co-Principal Investigators: **Paul Laurienti** / Jonathan Burdette
Total Grant Amount: \$132,121

R01 NS070917 05/01/2010 - 01/31/2015
NINDS
Connecting Brain Networks Across Subjects and Across Modalities
Principal Investigator: Satoru Hayasaka
Total Grant Amount: \$1,265,855

R01 ES 008739-16S1 03/01/2013 - 02/28/2015
NIEHS
CBPR On Pesticide Exposure & Neurological Outcomes for Latinos: PACE4
Principal Investigator: **Paul Laurienti**
Total Grant Amount: \$302,141

Industry Contract 03/01/2014 - 02/28/2015
The Hershey Company
Effects of a Cocoa Shot on the Human Brain II
Co-Principal Investigators: **Paul Laurienti** / Jonathan Burdette
Total Award Amount: \$455,995

T35 DK007400 05/01/1980 - 04/30/2015
NIDDK
Short Term Research Training of Medical Student
Principal Investigator: **Paul Laurienti** (2009-2012)
Total Grant Amount: \$1,246,714 since 2000

R21 ES019720 09/09/2011 - 08/31/2015
NIEHS
Pesticide Exposure and Age-Related Changes in Cognitive Function
Principal Investigator: Thomas Arcury
Total Grant Amount: \$185,000

R01 DK092237 09/15/2011 - 08/31/2016
NIH/NIDDK
Action for Health in Diabetes Brain Magnetic Resonance Imaging Ancillary Study (Look AHEAD)
Principal Investigator: Mark Espeland
Total Grant Amount: \$3,637,886

R01 ES008739 03/01/2013 - 02/28/2017
NIEHS
CBPR on Pesticide Exposure & Neurological Outcomes for Latinos: PACE4
Co-Principal Investigator: Thomas Arcury and **Paul Laurienti**
Total Grant Amount: \$3,560,508

R01 AG044474 08/15/2014 - 05/31/2017
NIA
Ultra-High-Field Neuroimaging in Elderly After a Two-Year Exercise Intervention
Principal Investigator: Caterina Rosano
Subcontract PI: **Paul Laurienti**
Total Grant Amount: \$930,992

WFUBMC Pepper Center 07/01/2016 - 08/31/2017
Pilot Grant
Principal Investigator: **Paul Laurienti**
Total Grant Amount: \$25,000

P01 AA021099 09/01/2013 - 08/31/2017
NIAAA
Translational Studies On Early-Life Stress and Vulnerability to Alcohol Addiction
Principal Investigator: Jeffrey Weiner
Project Principal Investigator: **Paul Laurienti**
Total Grant Amount: \$2,707,620

Enabling Technology FY13 01/01/2014 - 09/30/2017
DOD – Secretary of Defense
Mitigation of Symptoms for PTSD (post-traumatic stress disorder) with or without mild TBI (traumatic brain injury)
Principal Investigator: Charles Tegeler
Total Grant Amount: \$184,878

R01 MH097751 12/01/2012 - 11/30/2017
NIDA
Adolescent Cannabis Use, Complex Brain Network Connectivity & Schizophrenia Risk
Principal Investigator: Beng-Choon Ho
Subcontract PI: **Paul Laurienti**
Total Grant Amount: \$ 3,296,218

P30 AG21332 07/15/2013 - 06/30/2018
NIA
Wake Forest School of Medicine Claude D. Pepper Older Americans Independence Center
Principal Investigator: Stephen Kritchevsky
Total Grant Amount: \$535,994

LCBN / Sticht Center 07/01/2012 - 6/30/2018
Network Imaging Initiative
Principal Investigator: **Paul Laurienti**
Total Grant Amount: \$200,000

R01 AG047422-02S1 09/07/2018 - 05/31/2019
NIH/NIA
Resting Brain Networks and Mobility Function: B-NET Administrative
Supplement
Co-Principal Investigators: Stephen Kritchevsky / **Paul Laurienti**
Total Grant Amount: \$387,314

R01 AT009444 04/01/2017 - 03/31/2020
NIH/NCCIH
A Randomized Trial of Dance On Mood, Balance and Brain in Alzheimer's Disease
Principal Investigator: Christina Hugenschmidt
Total Grant Amount: \$1,382,479

R01 ES008739-22S1 08/01/2019 - 05/31/2021
NIEHS
The Effect of Pesticide Exposure on Cognitive and Brain Development in Latino
Children: PACE5 Administrative Supplement
Co-Principal Investigator: **Paul Laurienti** / Thomas Arcury
Total Grant Amount: \$158,138

R01 AG047422-04S1 08/01/2020 - 05/31/2021
NIH/NIA
Combining Assessment of Cognition, Eye Movement, and Gait in Naturalistic Settings to
Differentiate Subclinical Alzheimer's Pathology: B-NET Administrative Supplement
Co-Principal Investigators: Stephen Kritchevsky / **Paul Laurienti**
Total Grant Amount: \$392,315

R01 EB024559 06/15/2018 - 02/28/2022
NIH/NIBIB
Analytical Tools for Complex Brain Networks: Fusing Novel Statistical Methods and
Network Science to Understand Brain Function
Principal Investigator: Sean Simpson
Total Grant Amount: \$1,534,484

P50 AA026117 12/01/2017 - 11/30/2022
NIH/NIAAA
How Mindfulness Modulates Craving and Brain Networks in Moderate-To-Heavy
Drinkers
Principal Investigator: Jeffrey Weiner
Project PI: **Paul Laurienti**
Total Grant Amount: \$1,799,577 (Project 1)

Industry Contract 08/22/2022 - 1/11/2023
Otsuka Study via IQVIA
Principal Investigator: **Paul Laurienti**
Total Award Amount: \$299,879

R01 AG052419-05S1 09/01/2022 - 12/31/2023
NIH/NIA

B-NET Administrative Supplement
Co-Principal Investigators: Stephen Kritchevsky / **Paul Laurienti**
Total Award Amount: \$366,519

R01 AG052419 09/30/2017 - 12/31/2023
NIH/NIA \$587,689 annual
Resting Brain Networks and Mobility Function: B-NET
Co-Principal Investigators: Stephen Kritchevsky / **Paul Laurienti**
Total Award Amount: \$3,066,826

Training Grant Mentor

F31 AG030838 03/01/2008 - 06/23/2009
Ruth L. Kirschstein NRSA, NIA
Evaluating the Neural Effects of an Attention Training Program in Older Adults
Principal Investigator: Jennifer Mozolic

Translational Scholar Award 09/01/2007 - 08/31/2009
WFU Translational Science Institute
Integrating Genomics and Brain Imaging: Mapping Genetic Links Associated with
Normal and Abnormal Brain Structure and Function
Principal Investigator: Satoru Hayasaka

F31 DA024950 03/05/2008 - 09/21/2009
Ruth L. Kirschstein NRSA, NIA
The Effect of Caffeine and Caffeine Withdrawal on Mood, Cognition and fMRI
Principal Investigator: Merideth Addicott

F32 NS054472 05/01/2007 - 06/30/2010
NINDS
Aging and Unisensory Influence of Multisensory Processing
Principal Investigator: Ann Peiffer

Translational Scholar Award 07/01/2010 - 06/30/2012
WFU Translational Science Institute
Age-Related Whole-Brain Analyses via Exponential Random Graph Modeling Methods
Principal Investigator: Sean Simpson

T32 AA007565 09/01/2011 - 08/31/2013
Institutional NRSA, NIAAA
Multidisciplinary training in the biology of addiction.
Principal Investigator: Dr. Brian McCool, Trainee: Malaak Moussa

F31 AA019893 04/01/2011 - 12/31/2013
Ruth L. Kirschstein NRSA, NIAAA
Network Theory Analysis of Ethanol Self-Administered Non-Human Primates
Trainee: Qawi Telesford

K23 NS062892 06/01/2009 - 05/31/2014
NINDS
Diagnostic Ultrasound for Focal Neuropathies
Principal Investigator: Michael Cartwright

F31 AA021639 07/01/2013 - 06/30/2015
Ruth L. Kirschstein NRSA, NIAAA
The Effects of moderate Alcohol Use in Age Related Cognitive Decline
Trainee: Malaak Moussa

K25 EB012236 07/01/2012 - 06/30/2017
NIDDK
Statistical Methods for Whole-Brain Connectivity Networks
Principal Investigator: Sean Simpson

F99 NS125832 07/01/2022 - 06/30/2023
F99/K00, NINDS
Relationship of autonomic nervous system function on functional brain networks during
normal drinking and abstinence in daily drinkers
Principal Investigator: Hope Peterson

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Chapters in books:

1. Stein BE, **Laurienti PJ**, Wallace MT, Stanford TR. Multisensory Integration. In: V.S. Ramachandran (ed.), *Encyclopedia of the Human Brain*. Vol. 3. Academic Press; 2002:227-241.
2. Stein BE, Rowland B, **Laurienti PJ.**, Stanford TR. Multisensory Convergence and Integration. In: R. Krauzlis (ed.), *Encyclopedia of Neuroscience*. Vol.5. Elsevier; 2009:1119-1124.
3. Mozolic JL, Hugenschmidt CE, Peiffer AM, **Laurienti PJ**. Multisensory Integration and Aging. In: M.T. Wallace and M.M. Murray (eds.), *The Neural Bases of Multisensory Processes*. London: Taylor & Francis; 2011:381-392.
4. **Laurienti PJ**. Functional Studies in Humans: Physiological Bases. In: B.E.Stein (ed), *The New Handbook of Multisensory Processes*. Boston: MIT Press. 2012.
5. Hugenschmidt CE, **Laurienti PJ**, Burdette JH. Physical exercise and the resting brain. In: H. Boecker, C. Hillman, L. Scheef, H.K. Strüder (eds.), *Functional Neuroimaging in Exercise Sciences*. New York: Springer 2012.
6. **Laurienti PJ**, Hugenschmidt CE. Multisensory processes in old-age. In: D. Lewkowicz, C. Spence, and A. Bremner (eds.), *Multisensory Development*. London: Oxford Univ. Press. 2012: 251-272.
7. **Laurienti PJ**. Overcoming obstacles to creativity in geographically fragmented environments: Lessons from small-world networks. In: L. Book, D. Phillips (ed.), *Creativity and Entrepreneurship: Changing Currents in Education and Public Life*. Northampton: Edward Elgar Publishing. 2013:127-140.
8. Bolt TS, Hampton RS, Furr RM, Fleeson WW, **Laurienti PJ**, Dagenbach D. Integrating Personality/Character Neuroscience with Network Analysis. In: J.R. Absher and J. Cloutier (eds), *Neuroimaging Personality, Social Cognition, and Character*. Elsevier Science: Academic Press. 2016: 51-69.

9. Zhu Y, Zhu X, Kim M, Kaufer, D, **Laurienti PJ**, Wu G. Characterizing Dynamic Functional Connectivity Using Data-Driven Approaches and its Application in the Diagnosis of Alzheimer's Disease. In: BC Munsell, G Wu, L Bonilha, and **Laurienti PJ** (eds), *Connectomics: Applications to Neuroimaging*. Elsevier Academic Press. 2018: 181-95.

Editorial work:

1. Section editor and Commentary: From Neuron to Brain: Relating neurophysiological principles of multisensory integration to the human brain. In B.E.Stein (ed), *The New Handbook of Multisensory Processes*. Boston: MIT Press. 2012.
2. *Connectomics in NeuroImaging*. First International Workshop, CNI 2017, Held in Conjunction with MICCAI 2017, Quebec City, QC, Canada, September 14, 2017, Proceedings. Editors: Wu G, **Laurienti PJ**, Bonilha L, Munsell BC. Springer Int. Pub. 2017.
3. *Connectomics: Applications to Neuroimaging*. Editors: Munsell BC, Wu G, Bonilha L, **Laurienti PJ**. Elsevier Academic Press. 2018.
4. *Brain Connectivity*, February 2019. Special Issues Part I, "Connectomics." Guest Editors: Munsell BC, Wu G, Bonilha L, **Laurienti PJ**.
5. *Brain Connectivity*, March 2019. Special Issues Part II, "Connectomics." Guest Editors: Munsell BC, Wu G, Bonilha L, **Laurienti PJ**.

Journal Articles:

(Bold number in brackets at the end of reference is the number of times the paper has been cited as of 03/01/2024)

Peer Reviewed

1. Gamkrelidze GN, **Laurienti PJ**, Blankenship JE. Identification and characterization of cerebral-ganglion neurons that induce swimming and modulate swim-related pedal-ganglion neurons in *Aplysia brasiliana*. *J Neurophysiol* 1995; 74: 1444-1462. **(25)**
2. **Laurienti PJ**, Blankenship JE. Parapodial swim muscle in *Aplysia brasiliana*. I. Voltage-gated membrane currents in isolated muscle fibers. *J Neurophysiol* 1996; 76: 1517-1530. **(12)**
3. **Laurienti PJ**, Blankenship JE. Parapodial swim muscle in *Aplysia brasiliana*. II. Ca²⁺-dependent K⁺ currents in isolated muscle fibers and their blockade by chloride substitutes. *J Neurophysiol* 1996; 76: 1531-1539. **(12)**
4. **Laurienti PJ**, Blankenship JE. Serotonergic modulation of a voltage-gated calcium current in parapodial swim muscle from *Aplysia brasiliana*. *J Neurophysiol* 1997; 77: 1496-1502. **(8)**
5. **Laurienti PJ**, Blankenship JE. Properties of cholinergic responses in isolated parapodial muscle fibers of *Aplysia*. *J Neurophysiol* 1999; 82: 778-786. **(7)**
6. Blankenship, JE, Yu, B, Gamkrelidze, GN, **Laurienti, PJ**. Serotonin increases calcium current in swim motoneurons of *Aplysia*. *Am Zool* 1999; 39(5): 109A-109A. **(0)**

7. Yu B, Gamkrelidze GN, **Laurienti PJ**, Blankenship JE. Serotonin directly increases a calcium current in swim motoneurons of *Aplysia brasiliana*. *Am Zool* 2001; 41: 1009-1025. **(5)**
8. **Laurienti PJ**, Burdette JH, Wallace MT, Yen Y-F, Field AS, Stein BE. Deactivation of sensory-specific cortex by cross-modal stimuli. *J Cogn Neuroscience* 2002; 14: 420-429. **(288)**
9. Maldjian JA, Driskill L, **Laurienti PJ**, Burdette JH. Multiple reproducibility indices for evaluation of cognitive functional MR imaging paradigms. *AJNR Am J Neuroradiol* 2002; 23: 1030-1037. **(31)**
10. **Laurienti PJ**, Field AS, Burdette JH, Maldjian JA, Yen Y-F, Moody DM. Dietary caffeine consumption modulates fMRI measures. *NeuroImage* 2002; 17: 751-757. **(97)**
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12. **Laurienti PJ**, Wallace MT, Maldjian JA, Susi CA, Stein BE, Burdette JH. Cross-modal sensory processing in the anterior cingulate and medial prefrontal cortices. *Human Brain Mapping* 2003; 19: 213-223. **(84)**
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14. Maldjian JA, **Laurienti PJ**, Kraft RA, Burdette JH. An automated method for neuroanatomic and cytoarchitectonic atlas-based interrogation of fMRI data sets. *NeuroImage* 2003; 19: 1233-1239. **(4332)**
15. **Laurienti PJ**, Field AS, Burdette JH, Maldjian JA, Yen Y-F, Moody DM. Relationship between caffeine-induced changes in resting cerebral perfusion and blood oxygenation level-dependent signal. *Am J Neuroradiology* 2003; 24: 1607-1611. **(58)**
16. Hairston WD, **Laurienti PJ**, Mishra G, Burdette JH, Wallace MT. Multisensory enhancement of localization under conditions of induced myopia. *Exp Brain Res* 2003; 152: 404-408. **(64)**
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22. **Laurienti PJ**, Perrault TJ, Stanford TR, Wallace MT, Stein BE. On the use of superadditivity as a metric for characterizing multisensory integration in functional neuroimaging studies. *Exp Brain Res* 2005; 166: 289-297. **(130)**
23. Koyama T, McHaffie JG, **Laurienti PJ**, Coghill RC. The subjective experience of pain: Where expectations become reality. *PNAS* 2005; 102(36): 12950-12955. **(470)**
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27. Casanova R, Ryali S, Baer A, **Laurienti PJ**, Burdette JH, Hayasaka S, Flowers L, Wood FB, Maldjian JA. Biological Parametric Mapping: A Statistical Toolbox for Multi-Modality Brain Image Analysis. *NeuroImage* 2006; 34(1): 137-143. **(259)**
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40. Addicott MA, Yang LL, Peiffer AM, **Laurienti PJ**. Methodological considerations for the quantification of self-reported caffeine use. *Psychopharmacology* 2009; 203(3): 571-578. **(27)**
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76. Telesford QK, Burdette JH, **Laurienti PJ**. An exploration of graph metric reproducibility in complex brain networks. *Front in Neuroscience* 2013; 7:67 **(32)**

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103. Mokhtari F, Burdette JH, Rejeski WJ, **Laurienti PJ**, Predicting Success of a Weight Loss Intervention Using Brain Gray Matter and White Matter Volumes, Virginia Tech-Wake Forest University SBES Symposium, Winston Salem, NC, USA May 2016.
104. Mayhugh, RE, Moussa, M.E., Lyday, R.G., Burdette, J.H., **Laurienti, P.J.** Moderate Alcohol Consumption Lifestyle in Older Adults is Associated with Altered Central Executive Network Community Structure. Research Society on Alcoholism (RSA), New Orleans, LA, USA. June 2016.

105. Mokhtari F, Paolini BM, Burdette JH, Marsh AP, Rejeski WJ, **Laurienti PJ**. Baseline Gray- and White Matter Volume Predict Successful Weight Loss in the Elderly. Obesity Week. New Orleans, LA, USA November 2016.
106. Mokhtari F, Burdette JH, Marsh AP, Rejeski WJ, **Laurienti PJ**. Functional Brain Networks Prospectively Predict Intentional Weight Loss in Older Adults. NC Cognition Conference. Greensboro, NC, USA March 2017.
107. Bahrami M, **Laurienti PJ**, Arcury TA, Simpson SL. The Impacts of Pesticide and Nicotine on Functional Brain Networks in Latino Farmworkers. NC Cognition Conference. Greensboro, NC, USA March 2017.
108. Mokhtari F, Burdette JH, Marsh AP, Rejeski WJ, **Laurienti PJ**. Using fMRI Dynamic Networks in a Hypergraph Learning Model for Predicting the Success of Lifestyle Weight Loss Interventions in Obese Older Adults, SBES Symposium, Blacksburg, VA, USA, May 2017.
109. Mayhugh, RE, Burdette, J.H., Lyday, R.G, **Laurienti, P.J**. The Effect of Alcohol Abstinence on Functional Connectivity in Moderate-Heavy Alcohol Consumers. 2017 Organization for Human Brain Mapping, Vancouver, Canada. June 2017.
110. Mokhtari F, Burdette JH, Marsh AP, Rejeski WJ, **Laurienti PJ**. Using Higher Order Singular Value Decomposition to Reduce the Dimensionality of fMRI Dynamic Connectivity Tensors. Workshop on Brain Dynamics and Neurocontrol Engineering, Washington University, St. Louis, MO, USA. June 2017.
111. Mokhtari F, Zhu Y, Burdette JH, Wu G, Rejeski WJ, **Laurienti PJ**. Graph-Based Semi-Supervised Learning Outperforms Supervised Learning Algorithms in a Small fMRI Dataset, BMES Annual Meeting, Phoenix, AZ, USA October 2017.
112. Bahrami M, **Laurienti PJ**, Arcury TA, Simpson SL. Brain Networks In Latino Farmworkers With Chronic Exposures To Pesticides. BMES Annual Meeting, Phoenix, AZ, USA October 2017.
113. Peterson H, Mayhugh RE, W. Rejeski WJ, Bahrami M, Simpson SL, Heilman K, Porges SW, **Laurienti PJ**. Relationship between cardiac vagal tone and functional brain connectivity in moderate to heavy alcohol consumers. NetSci 2019 Burlington, VT, USA May 2019.
114. Bahrami M, **Laurienti PJ**, Simpson SL. Analyzing Local Subnetworks: Context is Everything. NetSci 2019 Burlington, VT, USA May 2019.
115. Khodaei M, **Laurienti PJ**, Simpson SL. White Matter Decline in Latinx Children from Farmworker Families. Virginia Tech-Wake Forest University SBES Symposium, Winston Salem, NC, USA May 2020.
116. Chen A, Yang D, Yan C, Kim M, **Laurienti PJ**, and Wu G. Reinforcement Learning the Heuristics of Hub Identification over Brain Networks. Organization for Human Brain Mapping (OHBM), Montreal, Canada, June 2020.

117. Lin Y, Yang D, Peng J, Yan C, Gao Y, Kim M, **Laurienti PJ**, Wu G. A General Learning-based Framework to Characterize Intrinsic Connectivity Strength in Brain Networks. Organization for Human Brain Mapping (OHBM), Montreal, Canada, June 2020.
118. Peterson H, Bahrami M, Simpson SL, Rejeski WJ, **Laurienti PJ**. Differential functional brain network topology during periods of normal drinking and abstinence in moderate to heavy alcohol consumers. Research Society on Alcoholism (RSA) (virtual conference), July 2020.
119. Peterson H, **Laurienti PJ**. Abstinence driven changes in functional brain network connectivity when viewing alcohol cue imagery. Society for Neuroscience Global Connectome (virtual conference), January 2021.
120. Peterson H, Simpson SL, **Laurienti PJ**, Rejeski WJ. Heartbeat counting is not associated with subjective interoceptive awareness or autonomic function in daily drinkers. New England Science Symposium (NESS) (virtual conference), May 2021.
121. Khodaei M, **Laurienti PJ**, Dagenbach D, Simpson SL. Assessing Intelligence-Related Transition From Rest to a Working Memory Task in Brain Network Architecture Using a Multi-Task Mixed Modeling Approach. SBES Symposium, Blacksburg, VA, USA, May 2021.
122. Peterson H, **Laurienti PJ**, Rejeski WJ, L Gauvin. Childhood emotional neglect is associated with low affect and high stress. Research Society on Alcoholism (RSA) (virtual conference), May 2021.
123. Khodaei M, **Laurienti PJ**, Simpson SL. Individual Brain Fingerprinting Using the Functional and Structural Network. Virginia Tech-Wake Forest University SBES Symposium, Winston Salem, NC, USA May 2022.
124. Peterson H, Veach L, Simpson SL, Fanning J, **Laurienti PJ**, Gauvin L. Differences in semantic interpretation of desire and craving in healthy alcohol consumers. Research Society on Alcoholism (RSA) (virtual conference), June 2022.
125. Dan T, Cai H, Huang Z, **Laurienti PJ**, Won Hwa Kim W, Wu G. Neuro-RDM: An Explainable Neural Network Landscape of Reaction-Diffusion Model for Cognitive Task Recognition. 25th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Singapore, China, September 2022.
126. Peterson H, Lyday RG, Tomlinson C, Rejeski WJ, Simpson SL, Burdette JH, **Laurienti PJ**. Alterations in functional connectivity within the Default Mode, Salience, and Motor networks during alcohol cue viewing following alcohol abstinence. Society for Neuroscience, San Francisco, CA, USA November 2022.
127. Khodaei M, **Laurienti PJ**, Dagenbach D, Simpson SL. Brain Working Memory Network Indices as Landmark of Intelligence. North Carolina Cognition Conference, Winston Salem, NC, USA February 2023.

INVITED PRESENTATIONS:

Academic: Intramural

09/2001 The Ultimate Emulsion: Mixing Event-Related and Epoch-Base fMRI

ANSIR Seminar Series, Wake Forest University Baptist Medical
Center, Winston Salem, NC

- 02/2002 Evaluating Age-Related Changes in Sensory Processing With fMRI
Grand Rounds, Wake Forest University Baptist Medical Center,
Winston Salem, NC
- 06/2002 Dietary Caffeine Consumption Modulates fMRI Measures
ANSIR Seminar Series, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 10/2002 fMRI and Behavioral Measure of Auditory/Visual Sensory Integration
Department of Psychology Colloquia Series, Wake Forest
University Baptist Medical Center, Winston Salem, NC
- 06/2003 Physiology of the BOLD Signal/ Grand Rounds, Wake Forest Baptist
Medical Center
- 06/2003 Physiology of the BOLD Signal
ANSIR Seminar Series, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 11/2003 Starbucks or Red Bull: Effect of Caffeine on fMRI
Radiology Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 10/2004 Sensory Processing in Older Adults
Kulynych Center for Memory and Cognition Research, Winston
Salem, NC
- 03/2005 The Aging Brain
Geriatric Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 06/2005 The Aging Brain
IEEE Lecture Series, SBES, Winston Salem, NC
- 09/2005 Sensory Processing in the Aging Brain
Young Investigator Award Presentation, Wake Forest University
Baptist Medical Center, Winston Salem, NC
- 09/2005 Peering Into the Aging Brain: Advanced Physiological MRI
Wake Forest University Vascular Dementia Workshop, Winston
Salem, NC
- 03/2006 This is Your Brain on Caffeine
General Clinical Research Center Lecture Series, Winston Salem,
NC
- 04/2006 Exploring the Final Frontier with Big Magnets: MRI of the Human Brain
Wake Forest Institute of Regenerative Medicine, Winston Salem,
NC

- 08/2006 This is Your Brain on Caffeine
Wake Forest Sleep Disorder Center Grand Rounds, Wake Forest
University Baptist Medical Center, Winston Salem, NC
- 11/2006 This is Your Brain on Caffeine
Neurology Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 03/2007 Functional Brain Imaging of Caffeine Withdrawal
Psychiatry Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 07/2007 Brain Fitness
Geriatric Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 09/2007 Evaluating Age Related Cognitive Decline and Cognitive Interventions
with Physiological Brain Imaging
Graylyn Conference on Women's Cognitive Health, Winston
Salem, NC
- 09/2008 Sensory Attention and The Aging Brain
2nd Annual William Hazzard Symposium, Department of
Gerontology, Wake Forest University Baptist Medical Center,
Winston Salem, NC
- 10/2008 Default Mode and the Aging Brain
Women's Health Initiative Annual Conference, Winston Salem, NC
- 02/2009 Applications of Network Theory to Studies of the Human Brain
Wake Forest University High Performance Computing
Conference, Winston Salem, NC
- 03/2009 Overcoming Creative Obstacles/Lessons from Small World Networks
Worlds in the Making: Creativity National Symposium, Wake
Forest University, Winston Salem, NC
- 04/2009 Network Science in Biomedical Research
Computer Science Colloquium, Wake Forest University Baptist
Medical Center, Winston Salem, NC
- 04/2009 Imaging Complex Brain Networks
Radiology Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 10/2009 Imaging in the Elderly
Graylyn Conference on Women's Cognitive Health, Graylyn
International Conference Center of Wake Forest University,
Winston-Salem, NC
- 03/2010 Network Science and Its Application to Collaborative Research
Translational Science Institute Seminar Series, Wake Forest
University Baptist Medical Center, Winston Salem, NC

- 04/2010 Network Science and Its Application to Collaborative Research
Nursing Research Council, Wake Forest University Baptist
Medical Center, Winston Salem, NC
- 06/2010 Team Science
Nursing Strategic Planning Meeting, Wake Forest University
Baptist Medical Center, Winston Salem, NC
- 05/2011 Complexity Theory and Biomedical Science
Mid-Career Investigator Award Presentation, Wake Forest
University Baptist Medical Center, Winston Salem, NC
- 09/2011 Brain-Body Interactions in Older Adults
Neuroscience Seminar Series, Wake Forest Baptist Medical
Center, Winston Salem, NC
- 09/2011 Interactions and Interdependence: Applying New Theories to the Aging
Brain Geriatric Grand Rounds, Wake Forest University Baptist
Medical Center, Winston Salem, NC
- 11/2011 Brain Networks and Obesity in Older Adults
Radiology Grand Rounds, Wake Forest Baptist Medical Center,
Winston Salem, NC
- 03/2012 Networks and Complex Systems
Computer Science Undergraduate Lecture, Wake Forest
University, Winston Salem, NC
- 11/2012 Network Science Applied to Brain Research
Computer Science Undergraduate Lecture, Wake Forest
University, Winston Salem, NC
- 12/2012 Interaction and Independence: Applying New Theories to the Aging Brain
Sticht Center Conference on Aging, Wake Forest School of
Medicine, Winston Salem, NC
- 02/2013 Complexity and the Brain
Health and Exercise Science Undergraduate Student Lecture,
Wake Forest University, Winston Salem, NC
- 04/2013 Career Choices in Science and Medicine
Department of Counselling Undergraduate Lecture, Wake Forest
University, Winston Salem, NC
- 11/2013 Eating, Behavior, and Brain Networks
Nutrition Grand Rounds, Wake Forest School of Medicine,
Winston Salem, NC
- 12/2013 Intro to Complexity
FaithHealthNC, Department of Ministries, Wake Forest School of
Medicine, Winston Salem, NC

- 03/2018 Using Brain Imaging to Predict Weight Loss Success
Pepper Center Investigator Meeting, Wake Forest School of
Medicine, Winston Salem, NC
- 05/2018 How Mindfulness Moderates Craving and Brain Networks in Moderate
Alcohol Drinkers
Center For Research on Substance Use and Addiction (CRSUA)
Seminar, Wake Forest School of Medicine, Winston Salem, NC
- 09/2018 Imaging Dynamic Changes in Brain Connectivity
2018 William R. Hazzard Translational Research in Aging
Symposium, Arbor Acres Retirement Community, Winston Salem,
NC
- 11/2020 Spreading Complexity
Dean's Research Symposia Series, Wake Forest School of
Medicine, Winston Salem, NC
- 05/2023 Integrating Brain and Body Imaging to Improve Patient Care
Pepper Spring Investigators Meeting, Brain networks and mobility
(BNET), Winston Salem, NC
- 02/2024 Brain Networks Associated with Obesity and Weight Loss
SBES Seminar, Winston Salem, NC
- 02/2024 2024 William R. Hazzard Translational Research in Aging Symposium,
Intergenerational Center for Arts and Wellness, Winston Salem,
NC

Extramural

- 11/2001 Imaging Multisensory Processing in the Human Brain with fMRI
Grand Rounds, Virginia Polytechnic Institute and State University,
Blacksburg, VA
- 08/2002 An Introduction to Functional Magnetic Resonance Imaging
Grand Rounds, Virginia Polytechnic Institute and State University,
Blacksburg, VA
- 09/2002 Integration of Visual and Auditory Stimuli in the Human Brain
Grand Rounds, Baylor University, Waco, TX
- 09/2002 Imaging Multisensory Processing in the Human Brain With fMRI
Grand Rounds, University of Texas Medical Branch, Galveston TX
- 06/2004 Differential Reactions to Multisensory Stimuli in "Primary" and "Non-
primary" Regions of Human Cortex International Multisensory
Research Forum, Barcelona, Spain
- 10/2005 Multisensory Integration in the Human Brain
International Dyslexia Association Annual Conference, Denver,
CO

- 06/2006 This is Your Brain on Caffeine
Salisbury VA Hospital Research Week, Salisbury, NC
- 10/2007 Modality Specific Selective Attention and Multisensory Integration in
Older Adults Aging and Speech Communication Conference,
Indiana University, IN
- 03/2008 Multisensory Integration in the Human Brain: Applications to Dyslexia
Annual Conference of Dyslexia, New York City, NY
- 06/2008 Modality Specific Selective Attention and Multisensory Integration
Theoretical and Experimental Psychology Conference, University
of Waterloo, Waterloo, Ontario, Canada
- 10/2008 Sensory Attention in the Aging Brain
Department of Psychology Grand Rounds, Indiana University,
IN
- 01/2009 Six Degrees of Cognition: Small World Networks in the Human Brain
University of Texas Health Science Center, San Antonio, TX
- 04/2009 Distractions in Older Adults
Pepper Center Conference, University of Pittsburgh, Pittsburgh,
PA.
- 06/2009 Network Analyses of Multisensory Processing
International Multisensory Research Forum, New York City, NY
- 10/2009 Increased Cross-Modal Distractibility in Older Adults
Aging and Speech Communication: Third International and
Interdisciplinary Research, Indiana Memorial Union Hotel,
Bloomington, IN
- 01/2010 Network Analyses Applied to Multisensory Integration
43rd Annual Winter Conference on Brain Research, Breckenridge,
CO
- 11/2010 Complexity Theory
Bioinspiration and Biomimetics Course, Wake Forest University,
Winston-Salem, NC
- 05/2011 Networks
Translational Science Center at Wake Forest Reynolda Campus
Seminar Series, Wake Forest University, Winston-Salem, NC
- 07/2011 New Methods of Connectivity Analysis
The UCLA Advanced Neuroimaging Summer program, UCLA, Los
Angeles, CA
- 09/2011 Complexity in Biology
Translational Science Freshman Seminar, Wake Forest
University, Winston-Salem, NC

- 11/2011 Not Hypothesis Testing and Complexity in Biology
Sensational Brain Course, UNCSEA, Winston-Salem, NC
- 02/2012 Special Interest Group: Cerebral Networks in Epilepsy: Merging Structure,
Function and Clinical Care. Presentation - Evaluating Complex Networks
American Clinical Neurophysiology Society Annual Meeting, San
Antonio, TX
- 02/2012 The New Scientific Revolution
TEDx Wake Forest U, Winston-Salem, NC
- 03/2012 Keynote Lecture: Network Science and Complex Systems
Rocky Mountain Bioengineering Symposium, Blacksburg, VA
- 09/2012 Wiring in the Aging Brain
Renaissance Weekend, Aspen Institute, Aspen, CO
- 09/2012 A Synthetic Brain Model for Clinical Application and Artificial Intelligence
11th Annual Technology Briefing, Benton Convention Center,
Winston Salem, NC
- 11/2012 The Sensational Brain
UNC School of the Arts, Winston Salem, NC
- 01/2013 Brains and Other Complex Systems
University of Illinois at Urbana-Champaign, Urbana, IL
- 05/2013 Network Science, Complexity, and the Future of Brain Research
Association for Psychological Science Annual Meeting,
Washington DC
- 05/2013 Neurocomplexity
The University of North Carolina Charlotte Complexity Institute
Seminar Series, Charlotte, NC
- 07/2013 Brain Networks
Camp Snowball, Systems Thinking and Schools, Winston Salem,
NC
- 11/2013 Brain Networks and Mobility Disability
Gerontology Society of America Annual Meeting, NIH Sponsored
Workshop - Aging, the CNS, and Mobility, New Orleans, LA
- 02/2014 Complexity and Networks
Frameworks Series, Wake Forest Schools of Business, Winston
Salem, NC
- 03/2014 It Takes the Whole Brain
Academy of Orton-Gillingham Practitioners and Educators Annual
Conference, Winston Salem, NC

- 04/2014 Network Science, Complexity, and Brain Research
Winston Salem Forsyth County Schools, Hanes Middle School
STEM Retreat, Winston Salem, NC
- 06/2014 Keynote Lecture: The Connected Brain
Small Boarding School Association Annual Conference, Winston
Salem, NC
- 06/2014 The Connected Brain
Utah National Association of Therapeutic Schools and Programs,
Utah Regional Conference, Provo, UT
- 07/2014 Complexity and the Human Brain
World Future Society, Orlando, FL
- 07/2014 Complexity
Chawumba, Stakeholder Health Annual Meeting, Winston Salem,
NC
- 10/2014 Health as a Complex Adaptive System
United States Government Accountability Office, Washington DC
- 08/2015 Complexity, Brain Networks, and Dyslexia
The Swift School, Roswell, GA
- 02/2016 The Brain as a Complex Network
NC Cognition Conference, Winston Salem, NC
- 02/2016 Complexity, Networks, and the Human Brain
Ashby Dialogues at UNC-G, Greensboro, NC
- 03/2016 Complexity Theory and Brain Networks
Triangle Imaging Symposium, UNC BRIC, Chapel Hill, NC
- 04/2016 Interdependence and Brain Networks
samsi CCNS Conference, Research Triangle Park, NC
- 02/2017 Occupational Exposure and Brain Health in Latino Farmworkers
Oregon State University, Corvallis, Oregon
- 03/2017 Networks, Interdependence, and the Complex Brain
Franklin Foundation Fellows at University of Georgia, Athens, GA
- 04/2017 Current Farmworker Research: Youth Farmworker Health and Safety;
and Effects of Pesticide Exposure on Child Neurocognitive Development
NC Farmworker Institute, Chapel Hill, NC
- 06/2017 Lifestyle Interventions and Brain Health
American Diabetes Association's Meeting 2017, San Diego, CA
- 09/2018 Finding Solutions: The Brain, Music, Complexity Science, & Rehabilitation
2018 ACRM Annual Conference, Progress in Rehabilitation
Research, Dallas, TX

- 05/2021 Transforming Clinical Neuroscience with Brain Networks
Behavioral Health Grand Rounds, Atrium Health/Charlotte AHEC,
Virtual
- 02/2021 Complex Brain Networks
NIAAA Collaborative T32 Seminar, Virtual
- 03/2033 Sensorimotor Network in Aging: Associations with Physical Function,
Obesity, and Weight Loss
Radiology Grand Rounds, Wake Forest University Baptist Medical
Center, Winston Salem, NC
- 01/2024 Neuroscience perspective of the human connectome
Education Program of Intelligence and Connectomics
Chapel Hill, NC

Industrial

- 04/2004 Sensory Processing in the Aging Brain
Targacept, Inc., Winston Salem, NC
- 08/2007 Brain Fitness
Posit Science, San Francisco, CA
- 09/2008 Caffeine and the Brain
Unilever, New York City, NY
- 01/2014 Cocoa and the Brain
The Hershey Company, Hershey, PA

Workshops and Symposia

- 03/2009 Godwin GW, Wiggins W, Hayasaka S, **Laurienti PJ**, Stapleton J.
Overcoming Creative Obstacles in Geographically Fragmented
Environments: Lessons from Small World Networks. Wake Forest
University Creativity Symposium, Winston-Salem, NC.
- 06/2009 Hayasaka S, **Laurienti PJ**. Overview of Small-World Networks and
Application in Neuroimaging In The Brain as a Small-World Network:
From Micro to Macro Scale. Symposium at Human Brain Mapping
Conference, San Francisco, CA.

Community Engagements

- 02/2004 The Aging Brain
Best Health, Winston Salem, NC
- 07/2004 The Aging Brain
Best Health, Winston Salem, NC
- 10/2004 The Aging Brain
Kernersville YMCA, Kernersville, NC
- 12/2004 The Aging Brain
Best Health, Winston Salem, NC
- 01/2005 The Aging Brain
Best Health, Winston Salem, NC

- 05/2005 The Aging Brain
Kiwanis Club, Winston Salem, NC
- 09/2006 Brain Fitness
Best Health Senior Center Grand Opening, Winston Salem, NC
- 04/2007 Preparing for a Visit to Your Doctor
Kiwanis Club, Winston Salem, NC
- 09/2007 Brain Fitness
Winston Salem Men's Group, Winston Salem, NC
- 04/2009 Brain Fitness
The Cliffs, Travelers Rest, SC
- 08/2009 Brain Fitness
The Cliffs, Travelers Rest, SC
- 12/2010 21st Century Science: Studies of the Complex Human Being
UNC School of the Arts ARTStem Program
- 02/2011 Brain Training 101
Half Century Club Founders' Day Program, Wake Forest University,
Winston Salem, NC
- 02/2011 Is Brain Fitness the Fountain of Youth
Dean's Forum, Bridger Field House, Wake Forest University, Winston
Salem, NC
- 02/2011 21st Century Science: Studies of the Complex Human Being,
Innovation and Creativity Lecturer Series, Winston Salem, NC
- 04/2012 Staying Sharp: Ask the experts about keeping your brain young
Panel discussion hosted by the WFU Graduate School of Arts and
Sciences in collaboration with the Dana Alliance for Brain Initiative,
Winston Salem, NC
- 09/2012 A Synthetic Brain Model for Clinical Application and Artificial Intelligence
Winston-Salem Tech Briefing, Winston-Salem Chamber of Commerce,
Winston Salem, NC
- 11/2012 Welcome to Brain Rules
Inspiring Learning Series, Winston Salem, NC
- 01/2013 Brain Rules and Other Complex Things
Winston Salem Rotary Club, Winston Salem, NC
- 02/2013 Welcome to Brain Rules
Greensboro Montessori School, Greensboro, NC
- 03/2013 Synthetic Brains, Facebook and the New Revolution
SXSW Interactive Programming for 2013, Austin, TX

- 10/2013 Breaking Brains
Planned Gift Advisory Council, Wake Forest Baptist Medical Center,
Winston Salem, NC
- 10/2013 Music and the Brain
The Music Academy, Greensboro, NC
- 12/2013 Aging Brain
Translational Science Center's Speakers Bureau, Archdale Senior
Center, Archdale, NC
- 03/2014 Memory: It's About Your Brain and Your Body
Dean's Forum, Bridger Field House, Wake Forest University, Winston
Salem, NC
- 05/2014 Memory: It's About Your Brain and Your Body
Lexington Medical Center Foundation, Lexington, NC
- 09/2014 Rethinking the Brain
Alumni Weekend Stay Connected Speaker Series
Winston Salem, NC
- 12/2015 Friends of Friends of Your Facebook Friends
Winston Salem Rotary Club
Winston Salem, NC
- 05/2019 Googling Dynamic Functional Brain Networks
Pint of Science
Winston Salem, NC
- 06/2019 Brain Networks
Wake Forest Summer Immersion Program
Winston Salem, NC
- 08/2023 B-NET Study Participant Appreciation Day
Sticht Center
Winston Salem, NC

DIDACTIC / SYSTEMATIC INSTRUCTION

WFU, Graduate School of Arts and Sciences

Course Director, NEUR 785 & 786 Network Science
& Neuroimaging Journal Club (1.0 hr each) 2007 - present

Course Director, NEUR 707 & 706, Neuroscience Tutorial
(1.0 hr each) 2021 - present

MENTORING

Formal Mentor Training:

The Wake Forest School of Medicine 1/2022 - 6/2022

2022 Mentoring Academy

Inclusive mentoring workshop
School of Biomedical Engineering and Sciences

5/25/2022

Previous and Current Mentees:

Current mentees:

PhD Students

Mohammadreza Khodaei PhD Student 2020-present
School of Biomedical Engineering and Sciences Graduate Student at
Wake Forest University. Dr. Laurienti serves as his PhD Co-advisor along
with Dr. Sean Simpson while he studies the use of multivariate models to
examine relationships between brain networks and human intelligence.

Haley Kirse PhD Student 2021-present
Physiology/Pharmacology Graduate Student at Wake Forest University.
Dr. Laurienti serves as her PhD advisor while she studies the longitudinal
effects of transcranial magnetic stimulation (TMS) as a tool to improve
alcohol treatment outcomes.

Clayton McIntyre PhD Student 2023-present
Neuroscience Graduate Student at Wake Forest University. Dr. Laurienti
serves as his PhD advisor while he studies effect of alcohol on the
adolescent human brain.

Masters Students

Alexis Tanase Masters Student 2021-present
Neuroscience Graduate Student at Wake Forest University. Dr. Laurienti
serves as her Master's program advisor while she studies effect of
mobility and aging use on the human brain.

Undergraduate Students

Madeline Boyd WFU Student 2022-present
Dr. Laurienti serves as Ms. Reddick's primary mentor as she volunteers in
the lab while working on her BS degree in Biology. She is currently
considering the WFU 4+1 Master's program.

Monica Soni WFU Student 2023-present
While completing her undergraduate degree at Wake Forest, Dr. Laurienti
served as an advisor while she studied the effects of pesticides on
children in the PACE 5 Study.

Junior Faculty

Heather M. Shappell Assistant Professor 2020-present
Dr. Shappell is a recent hire in the Department of Biostatistical Sciences
in Public Health Sciences at Wake Forest School of Medicine. Dr.
Laurienti serves as a mentoring team member.

Mohsen Bahrami, PhD Assistant Professor 2020-2021
Dr. Laurienti serves as a co-mentor for Dr. Bahrami. He is continuing his

graduate/post-graduate research using mixed model analysis to study changes in brain networks in multiple studies both in and outside the LCBN.

Previous mentees:

High School Students

Scott Snelgrove Loomis Chaffee HS Student Summer 2011
Dr. Laurienti served as a co-mentor for Mr. Snelgrove's summer internship with the LCBN. Scott modeled dynamic activity flow on networks.

Manisha Mishra S. Iredell HS Student Summer 2012
Dr. Laurienti served as a co-mentor for Ms. Mishra's summer internship with the LCBN. Manisha used agent based models to simulate neural activity in the brain.

Jacob Einstein NCSSM Student Summer 2014
Dr. Laurienti served as a co-mentor for Mr. Einstein's summer internship with the LCBN. Jacob worked with a human subject alcohol research study and was conducting preliminary investigations using negative networks in MRI imaging.

Undergraduate Students

Thomas Reddick WFU Student 2002-2003
Dr. Laurienti served as a mentor for Mr. Reddick's undergraduate Honor's Thesis Research. Dr. Reddick recently received his PhD from the Georgia Institute of Technology. He is currently an assistant professor at Purdue University.

Kathryn Davis WFU Student 2003
Dr. Laurienti served as a mentor for Ms. Davis's undergraduate Honor's Thesis Research. Dr. Davis received her MD from the University of Florida College of Medicine is practicing Obstetrics and Gynecology.

Jessica Bullins Salem College Student 2011-2012
Dr. Laurienti served as Ms. Bullins' primary mentor while she worked in the lab as a Wake Forest University Translational Science Center Scholar. She subsequently became a volunteer intern beginning in the lab her junior year of college and she returned as a Wake Forest University Intern Summer 2012, assigned to Dr. Jack Rejeski, on Sabbatical in the LCBN. She is currently a post-doctoral fellow at UNC.

Justyna Rzucidlo WFU Student 2011-2013
Dr. Laurienti served as the mentor for Ms. Rzucidlo's research dedicated to learning links between cognition and brain networks. This work was being completed in collaboration with Dr. Dale Dagenbach. She is currently an Internal Medicine resident at New York University.

Arial "Logan" Rost Salem College Student Summer 2012
Dr. Laurienti served as Ms. Rost's primary mentor while she worked in the lab as a Wake Forest University Translational Science Center Scholar. She was studying the effect of obesity on brain networks. She is currently a medical student at Bastyr University.

Robert Musci WFU Student 2012
 Dr. Laurienti served as the co-mentor for Mr. Musci's senior honors thesis. His project evaluated relationships between brain connectivity and physical function in older adults. He is currently a PhD student in translational aging at Colorado State University.

Matthew Stanley WFU Student 2012-2014
 Dr. Laurienti serves as the mentor for Mr. Stanley's volunteer research study. His project is evaluating cascades in brain using human fMRI data. He is currently a neuroscience PhD student at Duke University.

Cassandra Klebous WFU Student Summer 2013
 Dr. Laurienti served as Ms. Klebous' primary mentor while she worked in the lab as a Wake Forest University Translational Science Center Scholar. She subsequently became a laboratory employee as a study coordinator upon graduation. She is currently attending PA school at Nova Southeastern University in Florida.

Nicole Kus WFU Student Summer 2013
 Dr. Laurienti served as Ms. Kus' primary mentor while she worked in the lab as a Wake Forest University Translational Science Center Scholar. She was studying the effect of beetroot juice and exercise on brain networks in older adults. She is a medical student at Temple University.

Eric Schmid WFU Student Summer 2013
 Dr. Laurienti served as Mr. Schmid's primary mentor while he worked in the lab as a Wake Forest University Translational Science Center Scholar. He was studying the effect of beetroot juice and exercise on brain networks in older adults.

Meredith Petrie WFU Student 2014-2015
 Dr. Laurienti served as the co-mentor for Ms. Petrie's senior honors thesis. Her project evaluated relationships between brain connectivity and obesity/weight loss in older adults. This work was completed in collaboration with Dr. Jack Rejeski. After graduation, Meredith continued to work in the lab under the mentorship of Drs. Laurienti and Rejeski. She is completed a master's degree in social work at Washington University, and is currently working as a therapist.

Caroline Hayes WFU Student Summer 2015
 Dr. Laurienti served as Ms. Hayes' primary mentor while she volunteered in the lab learning about the effects of moderate alcohol use on the brain. She is currently a graduate student studying speech language pathology at NYU in New York City, NY.

John Passarelli WFU Student 2015-2016
 Dr. Laurienti served as a mentor for Mr. Passarelli's undergraduate research project working on genetic algorithms to generate functional brain networks. He is currently a senior machine learning engineer with Foxy AI.

Rebecca Omonde Salem College Student Summer 2017
 Dr. Laurienti served as Ms. Omonde's primary mentor while she worked

in the lab as a Wake Forest University Translational Science Center Scholar. She was studying voxel based morphometry (VBM) analysis. She is currently a customer service agent for Delta Airlines.

Emily McCarthy WFU Student Spring 2018
Dr. Laurienti served as a co-mentor to Ms. McCarthy while she collected brain MR images for a weight loss intervention study (EMPOWER). She is currently pursuing her graduate degree in Physical Therapy.

Laura Miron WFU Student 2018-2020
Dr. Laurienti served as a co-mentor to Ms. Miron while she collected brain MR images for a weight loss intervention study (EMPOWER). She is currently in medical school at the University of Arkansas for Medical Sciences.

Jessie Silfer WFU Student 2018-2020
Dr. Laurienti served as Ms. Silfer's primary mentor while she volunteered in the lab learning brain anatomy and assisting with various research projects. She is currently a graduate teaching assistant at Case Western Reserve university where she is working on her MS in Medical Physiology.

Alec Marsh UNC Student 2022-present
Dr. Laurienti serves as Mr. Marsh's primary mentor as he volunteers in the lab learning about network science as it applies to the human brain.

Masters Students

Molly DuBray Masters Student 2003-2004
Ms. DuBray completed a master's degree in psychology in Spring 2004. Her thesis project investigated memory processing using functional MRI.

Corey Lamborn Masters Student 2003-2004
Ms. Lamborn completed a master's degree in pharmacology in the summer of 2004. Her thesis project was an extension of the work completed by Dr. Whitlow, investigating decision making in chronic marijuana users.

Valerie Weisser Masters Student 2004-2006
Ms. Weisser completed a master's degree in psychology and was accepted to a clinical neuropsychology PhD program. Her thesis project was an extension of the work currently ongoing in Dr. Laurienti's laboratory that evaluated the effects of cognitive training in older adults.

Dr. Michael Cartwright Masters Student 2010-2012
Department of Neurology
Dr. Cartwright completed a Master's Degree in Clinical and Population Translational Science. Dr. Laurienti served as the Chair of his thesis committee.

Crystal Vechlekar Masters Student 2010-2012
Dr. Laurienti was the primary mentor for Ms. Vechlekar. Her research focused on age-related changes in complex brain networks. Dr. Laurienti served as the Chair of her thesis committee.

Paige Roseman Masters Student 2011-2013
 WFU Graduate Student in the Department of Psychology. Dr. Laurienti served as a co-mentor as Paige used network science methodologies to evaluate changes in the brains of US veterans who have experienced traumatic brain injury (TBI).

Ryan Hampton Masters Student 2012-2014
 WFU Graduate Student in the Department of Psychology. Dr. Laurienti served as an imaging advisor and committee member. Ryan used network science methodologies to analyze the Human Connectome Data Set.

Taylor Bolt Masters Student 2014-2015
 WFU Graduate Student in the Department of Psychology. Dr. Laurienti served an imaging advisor and committee member. Taylor studied repeated measures of the Iowa Gambling Task (IGT), N-back, and resting fMRI.

Jared Hess Masters Student 2014-2016
 Dr. Laurienti served as an imaging advisor and committee member for Mr. Hess' master thesis study. His thesis project investigates the changes in brain networks in patients with Parkinson's Disease using fMRI data.

Medical Students

Hesham Hussain Medical Student 2002-2007
 Dr. Laurienti was an advisor for Mr. Hussain.

Harsha Setty Medical Student 2003-2007
 Dr. Laurienti was an advisor for Ms. Setty.

Carter Brown MD/PhD Student 2002-2005
 Dr. Laurienti was the mentor for Dr. Brown's research endeavors throughout medical school. Carter worked on several fMRI and behavioral studies. He is currently a practicing diagnostic radiologist at Tidelands Georgetown Memorial Hospital in South Carolina.

David Joyner Medical Student Summer 2005
 Dr. Laurienti was the mentor for Mr. Joyner during his summer research project. His work was an extension of the ongoing behavioral and imaging research on multisensory integration and aging.

William Barrett Medical Student Summer 2009
 Dr. Laurienti was the mentor for Mr. Barrett during his summer research project. His project was the evaluation of network metrics on various components of an aging invention study.

Kevin Hiatt Medical Student Summer 2011
 Dr. Laurienti was the mentor for Mr. Hiatt during his summer research project. His work used novel network methods evaluation of an existing data set of MRI brain images from a dyslexia cohort.

John Tobben Medical Student Summer 2011
 Dr. Laurienti was a mentor for Mr. Tobben during his summer research

project. His work examined the cognitive effects of obesity in both younger and older adults.

Sean Miller Medical Student Summer 2011
Dr. Laurienti was a mentor for Mr. Miller during his summer research project. His work examined the physical effects of obesity in both younger and older adults.

Daniel Hampton Medical Student Summer 2012
Dr. Laurienti was a mentor for Mr. Hampton during his summer research project. His work examines the effects of assaulting functional brain networks.

Michelle Grata Medical Student Summer 2012
Dr. Laurienti was a mentor for Ms. Grata during her summer research project. Her work examines the effects of moderate alcohol use and aging on functional brain networks.

Aaron Winkler Medical Student Summer 2013
Dr. Laurienti was a mentor for Mr. Winkler during his summer research project. His work examines the effects of caffeine on functional brain networks.

PhD Students

Christina Hugenschmidt PhD Student 2003 - 2008
Dr. Laurienti was the primary mentor for Ms. Hugenschmidt. She worked on a project that assesses the role of selective attention in sensory integration changes in the elderly. Christina is currently an associate professor in Geriatric Medicine at Wake Forest School of Medicine.

Jennifer Mozolic PhD Student 2005 - 2009
Dr. Laurienti was the primary mentor for Ms. Mozolic. She was awarded an NRSA from NIA to work on a project to determine if attention training can improve sensory processing in the elderly. Jennifer completed her PhD training in June of 2009, and is currently a faculty member at Warren Wilson College.

Merideth Addicott PhD student 2006 - 2009
Dr. Laurienti was the primary mentor for Ms. Addicott. She was awarded an NRSA from NIDA to fund her graduate research investigating caffeine withdrawal and cognition. She completed her PhD training in August 2009 and is an Associate Professor in the Department of Physiology and Pharmacology at Wake Forest School of Medicine.

Karen Joyce PhD Student 2009-2012
Dr. Laurienti served as a PhD advisor and co-mentor for Ms. Joyce. She had a patent pending, along with Dr. Laurienti and Satoru Hayasaka., for "Agent-Based Brain Model and Related Methods" developed during her dissertation work. She is currently Director of Insights and Analytics with Novant Health.

Qawi Telesford PhD Student 2009-2013
Dr. Laurienti served as a PhD advisor and co-mentor for Mr. Telesford.

His PhD was awarded in Biomedical Engineering. Dr. Laurienti served as a PhD advisor and also assisted with Qawi's Ruth L. Kirschstein National Research Service Award (NRSA) submission and award. He currently is a research scientist at The Nathan Kline Institute for Psychiatric Research.

Malaak Moussa PhD Student 2010-2015
Dr. Laurienti was the primary mentor for Ms. Moussa. Her PhD work was performed in collaboration with Dr. Linda Porrino. The studies evaluated changes in brain networks following chronic alcohol use. She is currently associate director of medical affairs with Otsuka Pharmaceutical Company.

Robin Wilkins PhD Student 2010-2015
UNC Greensboro Graduate Student in the Department of Music. Dr. Laurienti served as a co-advisor. Ms. Wilkins was studying music preference and emotion and the association with brain network topology.

Rhiannon Mayhugh PhD Student 2013-2018
Dr. Laurienti served as a PhD advisor while she studied the changes in brain networks associated with moderate alcohol use in human aging. She is currently the Assistant Director of Experiential Learning at the Johns Hopkins School of Medicine.

Fatemeh Mokhtari PhD Student 2015-2018
School of Biomedical Engineering and Sciences Graduate Student at Wake Forest University. Dr. Laurienti served as her PhD advisor while she studied the changes in brain networks during a weight-loss intervention using machine learning methods. She is currently a software engineer at Apple.

Mohsen Bahrami PhD Student 2015-2019
School of Biomedical Engineering and Sciences Graduate Student at Wake Forest University. Dr. Laurienti serves as his PhD advisor as he uses mixed model analysis to study changes in brain networks. He is currently an associate professor in the Department of Radiology at Wake Forest School of Medicine in the Laboratory for Complex Brain Networks.

Hope Peterson-Sockwell PhD Student 2018-2023
Neuroscience Graduate Student at Wake Forest University. Dr. Laurienti served as her PhD advisor while she studied the effect of moderate alcohol use on the human brain. She is currently a post-doctoral fellow with R00 funding at UNC-Chapel Hill.

MD/PhD Students

Christopher Whitlow MD/PhD Student 2002-2003
Dr. Laurienti served as the fMRI advisor/co-mentor and dissertation committee chairman for Dr. Whitlow in collaboration with Dr. Linda Porrino. Dr. Whitlow's dissertation focused on the effects of chronic marijuana use on brain function. Dr. Whitlow is currently a faculty member with the Division of Radiologic Sciences at Wake Forest School of Medicine, and Section Head of Neuroradiology.

Brielle Paolini MD/PhD Student 2011-2015
 Dr. Laurienti was the co-mentor along with Dr. Jack Rejeski for Ms. Paolini's dissertation. She completed her dissertation on studies of eating behavior, brain and body health in older adults, and returned to complete medical school Spring 2015. She is currently a resident in Radiology at Medical University of SC in Charleston.

Medical Residents

John Kaufman, MD Radiology Resident 2006 - 2007
 Dr. Laurienti was the co-mentor for Dr. Kaufman in collaboration with Dr. Maldjian. Dr. Kaufman used quantitative perfusion and diffusion tensor MR imaging techniques to study cerebrovascular disease in diabetics. After completing a fellowship at the University of California, San Francisco Dr. Kaufman joined the Kaiser Permanente Medical Group in Hayward, CA.

Andrew Deibler, MD Radiology Resident 2006 - 2007
 Dr. Laurienti was a co-mentor for Dr. Deibler. He worked on a project to assess blood flow and functional activity in older adults. Dr. Deibler is currently a radiologist with Forsyth Medical Imaging Center in Winston Salem, NC.

Post-Doctoral Fellows

Ann Peiffer, PhD Post Doctoral Fellow 2004 - 2010
 Dr. Laurienti was the primary mentor for Dr. Peiffer. She had prior training in animal behavior and joined Dr. Laurienti's laboratory to gain experience with human functional imaging. She was funded for three years through an NRSA from NINDS. Ann is currently an associate professor at Mars Hill University in North Carolina.

Luke Burnett, PhD Post Doctoral Fellow 2005 - 2006
 Dr. Laurienti served as Dr. Burnett's mentor during his post-doctoral fellowship. Dr. Burnett has a PhD in neurobiology and came to Dr. Laurienti's laboratory to learn human imaging methods. He served as a fellow in the laboratory for 1 year before he was sent to serve in Iraq. Dr. Burnett is currently Chief Executive Officer at Keratin Biosciences, LLC.

Lucie Yang, MD, PhD Post Doctoral Fellow 2007 - 2009
 Dr. Laurienti served as Dr. Yang's mentor during her post-doctoral fellowship. She came from clinical Neuroradiology to a full time research position. Dr. Yang investigated the effects of caffeine on multiple aspects of human brain imaging.

Dorothy Dobbins, PhD Post-Doctoral Fellow 2020-2021
 Dr. Laurienti was the primary mentor for Dr. Dobbins. She had prior training in network science and optogenetics and joined Dr. Laurienti's laboratory to assist with the PACE 5 Study, dealing with the effects of pesticides on Hispanic children of farmworkers and non-farmworkers.

Research Associate

Mohsen Bahrami, PhD Research Associate 2020-2021
 Dr. Laurienti serves as a co-mentor for Dr. Bahrami. He was continuing his undergraduate research using mixed model analysis to study changes in brain networks in multiple studies both in and outside the LCBN.

Junior Faculty

Satoru Hayasaka Assistant Professor 2005-2011
Department of Biostatistical Sciences
Former Wake Forest School of Medicine TSI Scholar.
Dr. Laurienti served as his primary mentor.

Colleen Hanlon Instructor 2008-2010
Department of Physiology and Pharmacology
She received the K01 Mentored Research Scientist Development Award
from NIDA. Her research involved using functional magnetic resonance
imaging to examine neural networks affected in chronic cocaine users.
Dr. Laurienti served as a member of her mentoring team.

Michael Cartwright Assistant Professor 2008-2013
Department of Neurology
NIH K23 Award Recipient
Presented the President's Research Initiative Award by the American
Association of Neuromuscular and Electrodiagnostic Medicine (AANEM)
in 2009. Dr. Laurienti served as a member of his mentoring team.

Sean Simpson Professor 2009-2018
Department of Biostatistical Sciences
Current Wake Forest School of Medicine TSI Scholar
Dr. Laurienti served as his primary mentor and his mentor on a K-Award
through the NIBIB.

HOSTED AND VISITING FACULTY

Walter S. Pritchard Visiting Scientist 2009-2010
Instructor of Psychology Adjunct Faculty 2012-2018
Surry Community College, Dobson, NC
Dr. Pritchard authored many of the seminal papers in Chaos Theory,
Non-linear Dynamics, and Fractal scaling in the human brain in the 1980s
and 1990s. His initial mentoring and continued collaboration is a vital
component of the LCBN. In 2012 Dr. Pritchard became Adjunct Faculty
of the Department of Radiology at Wake Forest School of Medicine.

Kourtland R. Koch Visiting Scientist 2009-2010
Associate Professor of Special Education
Ball State University, Muncie, IN
Dr. Koch traveled several times to Wake Forest School of Medicine to
collaborate with Dr. Laurienti and learn about functional brain Imaging.
Publications of this collaboration are pending.

Janine Jennings Sabbatical Spring 2009
Associate Professor of Psychology
Wake Forest University, Winston Salem, NC
Dr. Jennings spent her Sabbatical in the Spring of 2009 working with the
faculty of the LCBN. Collaborations and publications are ongoing.

Dale Dagenbach Sabbatical Fall 2011
Professor & Chair Psychology Visiting Scientist 2012-present

Wake Forest University, Winston Salem, NC

Dr. Dagenbach spent the Fall semester of 2011 on Sabbatical in the LCBN looking at the differences in brain networks between resting and task induced states. He continues to spend 2-3 days a week working with faculty, staff, and students in the lab. Drs. Dagenbach and Laurienti serve as mentors for many WFU undergraduate and graduate students. Collaborations and publications are ongoing.

W. Jack Rejeski	Sabbatical	2012- 2013
Thurman D. Kitchin Professor		
Director of the Behavioral Physiology Laboratory, Wake Forest University, Winston Salem, NC		
Dr. Rejeski is spending his extended Sabbatical in the LCBN study the effects of Mindfulness and Food Craving on networks in the brain.		
Collaborations and publications are ongoing.		

COMMUNITY ACTIVITES AND SERVICES

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