

CURRICULUM VITAE

R. JARRETT RUSHMORE III

Assistant Professor of Anatomy and Neurobiology

Department of Anatomy and Neurobiology

Boston University School of Medicine

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Academic Training:

- 1995 B.S. (Neuroscience), Trinity College, Hartford, CT
- 2004 Ph.D. (Anatomy and Neurobiology) Boston University, Boston, MA

Additional Training:

- 5/04-8/04 Postdoctoral Fellow in Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA

Academic Appointments:

- 9/04-2/07 Instructor of Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA
- 2/07-present Assistant Professor of Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA

Other Appointments or Other Employment:

- 6/95-8/97 Research Technician, Boston University School of Medicine, Boston, MA
- 9/05-5/06 Senior Lecturer, School of Professional and Continuing Studies, Northeastern University, Boston, MA
- 8/09-8/10 Visiting Scientist, Max Planck Institute for Brain Research / Darmstadt Technical University, Frankfurt, Germany
- 7/06-present Faculty Member, Division of Graduate Medical Science, Boston University School of Medicine, Boston, MA
- 3/19-present Visiting Faculty, Ross University, Bridgetown Barbados, W.I.
- 6/14-present Faculty Member, Undergraduate Program in Neuroscience, Boston University, Boston MA
- 7/18-present Research Scientist, Psychiatric Neuroimaging Laboratory, Brigham and Woman's Hospital, Boston, MA
- 5/19-present Research Scientist, Center for Morphometric Analysis, Massachusetts General Hospital, Boston, MA

Honors and Awards:

- 05/04 Henry I. Russek Achievement Award, Boston University School of Medicine,

05/06-05/15	Nominee for Educator of the Year Award for Graduate and/or Preclinical Sciences (Annually) Boston University School of Medicine
05/08	Educator of the Year Award in Graduate Sciences, Boston University School of Medicine,
05/08	Nominee – American Association of Anatomists – C.J. Herrick Young Investigator Award
05/08, 05/16	Nominee – Metcalf Award for Excellence in Teaching (All University) – Boston University
05/09,-11,-13,-15	Nominee – Robbins Award for Excellence in Teaching – Boston Univ School Med
07/09	Deutscher Akademischer Austausch Dienst (DAAD) faculty award grant
05/14	Educator of the Year in Preclinical Sciences, Boston University School of Medicine
09/16	Mid-Career Faculty Leadership Program, Boston University School of Medicine
01/16	SCOMSA Faculty Award, “The Extra Miler,” Boston University School of Medicine
05/17	Stanley Robbins Award for Excellence in Teaching (Highest teaching award at BUSM)– Boston University School of Medicine
02/19	SCOMSA Faculty Award, “The Illustrator,” Boston University School of Medicine

Departmental and University Committees

Department of Anatomy and Neurobiology, Boston University School of Medicine

06/04-06/06	Library Committee
06/06-08/13	Graduate Student Committee
06/07-06/10	Seminar Coordinator
06/08-08/13	Chairman, Graduate Student Committee
06/08-08/13	Director of Graduate Studies
06/08-08/13	Director of Admissions
09/09-09/12	Organizer and Creator, In-house graduate Student Seminar Series
09/10-06/17	Vesalius Teaching Project Evaluation Committee
01/10-09/10	Neurobiology of Education Working Group
05/10-08/10	Committee on Post-Qualifying Exam Procedures (Ad Hoc)
04/12-05/13	Department of Anatomy and Neurobiology Website Administrator
09/13-09/16	Ombudsman, Department of Anatomy and Neurobiology
05/15-06/17	Executive committee
05/15-05/17	Committee on Graduate Education – Department Review
01/16-06/17	Task Force on Diversity
01/19-pres	Qualifying Examination Committee

Division of Graduate Medical Sciences, Boston University School of Medicine

06/08-08/13	Ph.D. Programs Steering Committee
06/08-08/13	M.A. Programs Steering Committee
06/08-08/13	Russek Award Committee

02/09-04/09	Committee for Faculty Affairs Educator of the Year Subcommittee
02/10-09/10	Working group on integrated curriculum (Foundation in Biomedical Sciences I)
04/11-08/12	Committee on Integrated Curriculum (Foundation in Biomedical Sciences II)
05/11-05/11	Student Marshall, Graduate Medical Sciences Graduation
06/11-08/13	Admissions Committee – O.D./ Ph.D. program
02/15-04/15	Committee for Faculty Affairs Educator of the Year Subcommittee

Chair of Doctoral Thesis Committees:

03/09-04/09	Fred Powell (M.D./Ph.D.)
03/11-04/11	Patrick Scott (O.D./Ph.D.)
03/12-04/12	Kathy Kopeikina (Ph.D.)
03/12-04/12	Corinna Bauer (Ph.D.)
03/12-04/12	William Pearson (Ph.D.)
03/12-04/12	Kelley Erb (Ph.D.)
03/12-04/12	Darshan Trivedi (M.D., Ph.D.)
03/12-04/12	Kevin Bickart (M.D., Ph.D.)
02/14-05/14	Jonathan Dashkoff (M.D., Ph.D.)
03/15-05/15	Julie Stamm (Ph.D.)
02/16-05/16	Danielle Farrar (M.D., Ph.D.)
01/19-07/19	Lauren Zajac (Ph.D.)

Medical School, Boston University School of Medicine

05/07-10/11	Institutional Animal Care and Use Committee (IACUC)
09/07-08/13	School of Medicine Appeals Committee (Elected by Medical Student Body)
08/19-pres	School of Medicine Appeals Committee (Elected by Medical Student Body)
06/13- 05/17	Pre-clerkship Curriculum Subcommittee (PCS) of the Medical Education Committee
06/14-07/15	Foundational Sciences Curriculum Committee
07/14-08/14	Syllabi Citation Guidelines Committee
03/15-03/15	AOA Criteria Working Group
03/15- 07/18	Institutional Radiation Safety Committee
01/15- 08/17	Integration of Foundational and Clinical Sciences Subcommittee
09/15- 06/17	Facilitator, Training the Mentor Program
05/16-07/17	BUSM30 Subcommittee of the PCS

Teaching Experience and Responsibilities

01/06 – 06/17	Methods in Neurosciences (AN718) – Interdepartmental Graduate Course, Boston University School of Medicine, Boston, MA Role: Lecturer
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- 08/11 – 07/17 Cellular Organization of Tissues (AN722) – Master of Science in Medical Sciences Program
Graduate Course, Boston University School of Medicine, Boston, MA
Roles: Lecturer, Laboratory Instructor
- 09/12 – pres. Systems Neurobiology (AN810) - Interdepartmental Graduate Course, Boston University
School of Medicine, Boston, MA
Role: Lecturer, course co-director (2019-pres)
- 01/14 – pres. Advanced Human Neuroanatomy (AN724) - Department of Anatomy and Neurobiology
Graduate Course, Boston University School of Medicine, Boston, MA
Roles: Course Director, Course Creator, Laboratory Instructor
- 01/14 –pres. Disease and Therapy - Neurology block (MS224) - Second year medical school course, Boston
University School of Medicine, Boston, MA
Role: Lecturer
- 08/15 –pres. Principles Integrating Science and Medicine –Cells to Tissues Module,
First year Medical School Course, Boston University School of Medicine, Boston MA
Roles: Lecturer, Small-group discussion leader
- 8/15 – pres. Principles Integrating Science and Medicine –Body Structures Module,
First year Medical School Course, Boston University School of Medicine, Boston MA
Roles: Co-Course Director, Lecturer, Laboratory Instructor, Neurophysiology Discussion
Facilitator
- 2015 – pres. Principles Integrating Science and Medicine –Body Structures: Neuroscience Module,
First year Medical School Course, Boston University School of Medicine, Boston MA
Roles: Course Director (2015-2017), Lecturer (2015-pres), Laboratory Instructor,
Neurophysiology Discussion Facilitator
- 2019 – pres. Principles Integrating Science and Medicine –Body Structures: Cardiovascular Module,
First year Medical School Course, Boston University School of Medicine, Boston MA
Role: Laboratory Instructor
- 2019 – pres. Principles Integrating Science and Medicine –Body Structures: Respiratory Module,
First year Medical School Course, Boston University School of Medicine, Boston MA
Role: Laboratory Instructor
- 09/04 – 06/05 Medical Histology (MS123)– First Year Medical School Course, Boston University School of
Medicine, Boston, MA
Roles: Lecturer, Laboratory instructor, Discussion Instructor
- 09/05-12/06 Sensation and Perception, School of Professional and Continuing Studies, Northeastern
University, Boston, MA
Role: Lecturer
- 01/05-05/15 Physiological Psychology, School of Professional and Continuing Studies, Northeastern
University, Boston, MA
Roles: Course Director, Lecturer
- 09/05-06/10 Medical Histology, Course in Masters of Arts in Medical Sciences program, Boston University
School of Medicine, Boston, MA
Roles: Lecturer, Laboratory Instructor

- 01/07- pres. Neurobiology of Vision, Graduate Course in Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA
Role: Lecturer
- 10/08-07/15 Medical Neurosciences (MS133) – First Year Medical School Course, Boston University School of Medicine, Boston, MA
Roles: Lecturer, Neuroanatomy Laboratory Instructor, Neurophysiology Discussion Facilitator
2012-2013 – Assistant Course Director
2013-2015 - Course Director
- 10/11 -10/11 Beginning Basic Neurosciences, Behavioral Neuroscience Graduate Course, Boston University School of Medicine, Boston, MA
Role: Lecturer
- 01/13-05/13 Teaching in the Biomedical Sciences, Graduate Course in Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA
Role: Lecturer, Discussion Facilitator
- 10/13-10/13 Medical Physiology, Graduate Course in Masters of Arts in Medical Science program, Boston University School of Medicine, Boston, MA
Role: Discussion Facilitator
- 05/14 –05/15 Neurology Clerkship (MS316) - 3rd year medical school course, Boston University School of Medicine, Boston, MA
Role: Lecturer

Program Development

- 7/15-present SPIN (Summer Program in Neuroscience) –co-creator & co-director (with J. Holsapple, MD)
For undergraduate students interested in neurosurgery, neuroanatomy and neuroscience.

Major Mentoring and Advising Activities (all mentoring performed at Boston University School of Medicine)

- 09/08-06/15 At-large Advisor, Academy of Advisors - for 1st and 2nd year medical students (~4/yr), Boston University School of Medicine, Boston, MA
- 06/08-08/13 Graduate Student Advisor – Ph. D Program (all students), Department of Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA
- 06/08-08/11 Graduate Student Advisor – M.A. Program (all students), Department of Anatomy and Neurobiology, Boston University School of Medicine, Boston, MA
- 09/10-06/16 Graduate Student Advisor – Advisor for 1st and 2nd year Master in Medical Science students (~24/yr), Boston University School of Medicine, Boston, MA
- 09/11-06/17 Mock Interviewer – for students that receive interviews at MD/DO schools - Masters in Medical Science Program, Boston University School of Medicine, Boston, MA
- 06/15-06/17 Faculty Sponsor / Advisor – Medical Student Service Project to bring Neuroscience Literacy to Geriatric Populations

Teaching Project Mentoring (date reflects project completion)

- 2014 Teaching Project (Vesalius Project) Mentor – Lucky Challyandra (M.A. Student in Anatomy and Neurobiology)– Development of Video Series for Teaching Visual Field Deficits for the Medical Neuroscience Course
- 2015 Teaching Project (Vesalius Project) Mentor – Julie Stamm (Ph.D. Student in Anatomy and Neurobiology) – Reorganization of Neuroscience Course Laboratory Manual.
- 2016 Teaching Project (Vesalius Project) Mentor – Lev Vaisman (M.D./Ph.D. student in Anatomy and Neurobiology) - Construction of neuroimaging course material for Medical Neuroscience Course.
- 2016 Teaching Project (Vesalius Project) Mentor – Afraa Alsamkari (M.S. Student in Anatomy and Neurobiology) –Vestibular System Function
- 2016 Teaching Project (Vesalius Project) Co-Mentor – Suji Reprakash (M.S. Student in Anatomy and Neurobiology) – Development of game-based review for cranial nerve and nuclei neuroanatomy
- 2016 Teaching Project (Vesalius Project) Mentor – George Farah (M.S. Student in Anatomy and Neurobiology) – Development of an on-line quiz-based neuroanatomy review.
- 2016 Teaching Project (Vesalius Project) -Mentor – Andres Velez Lopez (M.S. Student in Anatomy and Neurobiology) – Development of three-dimensional computer model of the human brainstem
- 2017 Teaching Project (Vesalius Project)- Co-Mentor – Francis Zamora (M.S. Student in Anatomy and Neurobiology) - Guiding exploration of the human brain – A dissection-based lesson for the Boston Museum of Science

Research Project Mentoring: Primary Mentor (date reflects project completion)

- 2005 Martin Oselkin – Masters Degree in Medical Sciences
Thesis Title: Neuroprotective strategies in acute stroke: the use of transcranial magnetic stimulation.
Current Position: Neuroradiology Fellow, University of Pennsylvania
- 2006 Linda Afifi – Masters Degree of Anatomy and Neurobiology
Thesis Title: The impact of early bilateral ablation of areas 17 and 18 on motion perception.
Current Position: Instructor, Tufts University School of Medicine
- 2007 Julie Williams – Masters Degree of Anatomy and Neurobiology
Thesis Title: Neural correlates of repetitive transcranial magnetic stimulation-mediated recovery of lesion-induced visual neglect.
Current Position: Clinical Project Manager, Visterra, Inc.
- 2007 AmiLyn Taplin – Masters Degree in Medical Sciences
Thesis Title: Review and analysis of invasive neuromodulatory techniques: deep brain stimulation and epidural stimulation.
Current Position: Neurosurgery Resident, Albany Medical College
- 2007 Alicia Robbins – Masters Degree in Medical Sciences

- Thesis Title: Dynamics of the impact of unilateral parietal cortex deactivation on orienting behavior.
Current Position: OB/GYN Physician, New York City
- 2007 Jeremy Macko - Masters Degree in Medical Sciences
 Thesis Title: Assessments and treatments of visuospatial neglect.
 Current Position: Resident, Flight Surgeon, US Air Force
- 2010 Christopher DeSimone – Masters Degree in Medical Sciences
 Thesis Title: Recovery from the effects of lesion using repeated sessions of transcranial direct current stimulation.
 Current Position: General Surgery Resident, Palisades Medical Center
- 2011 Gregory Fenton – Masters Degree in Medical Science
 Thesis Title: Reversal of lesion-induced visual neglect using active-state transcranial direct current stimulation
 Current Position: Neurology Resident, Rush University School of Medicine
- 2011 Ryan Sofka – Masters Degree in Medical Science
 Thesis Title: Electrophysiological and current source density analysis of the transcallosal pathway connecting the primary visual cortices.
 Current Position: Medical Student, University of Vermont
- 2012 Marie-Helene Gagnon – Masters Degree in Medical Sciences
 Thesis Title: Graph theoretical analysis of visual system functional connectivity in normal and lesioned brains.
 Current Position: Medical Student, Emory University
- 2012 O’Hara Haley – Masters Degree in Anatomy and Neurobiology
 Thesis Title: Characterization of glucose uptake dynamics in human U87 glioblastoma cells following co-treatment with paclitaxel and dexamethasone. (with Dr. Anne van de Ven-Moloney)
 Current Position: Medical Student, Commonwealth Medical College
- 2012 Simon Maisel – Masters Degree in Medical Sciences
 Thesis Title: Repetitive anodal tDCS of perilesional cortex impairs recovery of function after parietal damage.
 Current Position: Research Assistant, Children’s Hospital, Boston MA
- 2012 Michael Roche – Masters Degree in Medical Sciences – selected for honors
 Thesis Title: Electrophysiology of cortical spreading depression in the rat neocortex.
 Current Position: Research Assistant, University of Colorado
- 2012 R. Michael Cournoyer – Masters Degree in Anatomy and Neurobiology
 Thesis Title: Functional activity of brain structures underlying visuospatial orienting in normal and lesioned brains.
 Current Position: Medical Student, Indiana University School of Medicine
- 2012 Jeremiah Paskus – Masters Degree in Anatomy and Neurobiology
 Thesis Title: Safety aspects of chronic repetitive transcranial magnetic stimulation: effect on neuronal and glial structure.
 Current Position: Doctoral Student in Neuroscience, Georgetown University
- 2014 Dan Olix – Masters Degree in Medical Science

- Thesis Title: The impact of primary motor cortex, spinal cord, and sciatic nerve cooling on spinal reflex activity in the rat.
Current position: Chief scribe, HVMA –Wellesley
- 2016 Patrick McGillen – Masters Degree in Medical Science
Thesis Title: Determining the cellular basis of transcranial brain stimulation in mitigating the effect of ischemic brain injury
Current position: Medical Student, Boston University School of Medicine
- 2016 Ian Benjamin– Masters Degree in Medical Science
Thesis Title: The impact of ketogenic diet on cerebral excitability.
Current position: Medical Scribe, MCAT instructor
- 2016 Alina Bazarian – Masters Degree in Medical Science
Thesis Title: Translaminar pattern of c-fos activation in rat motor cortex after unilateral cortical spreading depression
Current position: Medical Scribe
- 2016 Andrew Chang – Masters Degree in Medical Science
Thesis Title: Electrophysiological analysis of transcranial direct current stimulation and its effect on cortical spreading depression
Current position: Research Assistant, Boston University School of Medicine

Research mentor – Secondary Mentor / Second Reader

- 2005-2017 Second reader for 79 Masters of Science or Master of Arts Degree in Medical Science theses, Boston University School of Medicine, Boston, MA
- 2007-2017 Second reader for 8 Masters of Arts or Master of Science Degree in Anatomy and Neurobiology theses, Boston University School of Medicine, Boston, MA
- 2014-2017 Second reader for Master of Science in Bioimaging Degree thesis
- 2015 Research mentor for 2 undergraduate students in a summer neuroscience program

Member of Doctoral Thesis Committees (dates reflect graduation year)

- 2011 Linda Afifi (2nd reader)
2011 Stephanie Soscia
2012 Seth Elkin-Frankston (2nd reader)
2012 Joseph Amatrudo
2013 Jon Rueckemann
2013 Peter Fried
2014 Ana Amaral
2014 Claire Timbie
2015 Shaun Patel
2016 Nadine Heyworth
2016 Charlie Yang
2017 Mary Orczykowski
2017 Teresa Guillamon
2017 Ruiyi Ren
2017 Roman Loonis
pres Wayne Chang

Mentorship Grants

- 07/11 -09/11 Interactions of Parietal Cortex (Grant through Albany Medical College for summer medical student, Kyle Wassermann; Mentor: Rushmore; Funds for student stipend)
- 09/12-05/13 Effect of Deactivating Feedback and Callosal Parietal Projections on Neural Activity in Primary Visual Cortex (UROP (Undergraduate Research Opportunity Program), Boston University; Mentor: Rushmore, Student PI: Jaime Nagy)

Other Professional Activities:

Editorial Boards

- 04/12-05/13 ISRN Neuroscience
02/16-present Review Editor, Frontiers in Neuroanatomy

Journal and Book Reviewer (ad hoc)

- Cerebral Cortex
Journal of Neuroscience Methods
Journal of Comparative Neurology
Brain Research
European Journal of Neuroscience
Experimental Brain Research
PLoS One
McGraw-Hill Publishing
National Board of Medical Examiners
Restorative Neurology and Neuroscience
Brain Stimulation
Thieme Publishers
Frontiers in Neuroanatomy
Frontiers in Neuroscience
Sinauer Associates - Textbooks (Blumenfeld's Neuroanatomy Through Clinical Cases)
Neuroscience
Journal of Urology

Federal Government

- 06/11-10/11 Stroke Program Review Panel (SPRG), National Institutes of Health

Other

- 04/08-pres. Scientific Board, Highland Instruments, Inc., Cambridge, MA
08/11 External Evaluator – Chair of Physiology, University of Bern, Switzerland
10/12 External Grant Reviewer – Medical Research Council, UK
09/14 Review Committee, International Association of Medical School Educators
3/15-3/17 Science Fair Judge, Bromfield High School, Harvard, MA
3/15-3/17 Neuroanatomy Presentation to High School STEM students, Boston University School of Medicine, Boston, MA
10/18 Grant Reviewer – FWF (Austrian Science Fund)
11/18 Grant Reviewer – Boston University CTSI Program
04/20 Grant Reviewer – Dutch Research Council

Research Support:

01/19-pres High resolution, comprehensive atlas of the human brain morphology (R01MH112748 PI: Bouix, Kubicki, Makris)
Role: Co-I

09/14-08/17 Using transcranial stimulation to prevent cortical spreading depression (R21NS084022 PI: Rushmore; \$275,000)
Role: PI

09/14-05/15 Neurobiology of Visuospatial Neglect (CTSI Pilot Funding Award PI: Rushmore, \$20,000)
Role: PI

09/10-08/11 Recovering from Chronic Brain Damage with TDCS (R21NS042317-02; PI: Rushmore; \$125,000)
Role: PI

01/09-05/10 Defense Advanced Research Project Agency (FY09-008; PI: Wagner; \$99,000)
Role: Key Personnel / Animal work PI

09/09-08/10 Recovering from Chronic Brain Damage with TDCS (R21NS042317-01; PI: Valero-Cabre; \$150,000)
Role: Investigator

05/08-04/11 Electromechanical Noninvasive Brain Stimulation: Safety and Efficacy (R43NS062530; PI: Wagner; \$417,000)
Role: Key Personnel

08/08-07/09 Neural correlates of the manipulation of visuo-spatial processing by Transcranial Direct Current Stimulation: setting the stage for future clinical applications (Spivak Grant; PI: Valero-Cabre); \$40,000)
Role: Investigator

01/07-10/07 Malnutrition and Mental Health: A Rat Model (R01MH74811; PI Galler; \$1,909,380)
Role: Consultant

06/04-05/08 Rehabilitation of Neural Spatial neglect (R01NS47754; PI: Payne, Moss; \$2.500,000)
Role: Investigator

04/04-03/06 Cognition after Lesion of Immature Cerebral Cortex (R01NS33975; PI: Payne, Sandell; \$1,200,000)
Role: Investigator

06/04-05/05 Cortical Circuits Underlying Cognitive Function (R01NS32137; PI: Payne, Sandell; \$600,000)
Role: Investigator

02/02-01/04 Parietal and Temporal Circuits in Cognition (F31NS44624 – Individual Pre-doctoral Award; PI: Rushmore; \$51,700)
Role: PI

Bibliography:

Original, Peer Reviewed Articles

1. Bronzino JD, Kehoe P, Austin-LaFrance RJ, **Rushmore RJ**, Kurdian J. (1996) Neonatal isolation alters LTP in freely moving juvenile rats: sex differences. *Brain Research Bulletin*. **41**:175-83. PMID: 13823592
2. **Rushmore J**, Luebke J, Galler JR. (1998) Electrophysiological properties of rat hippocampal principal cells are unaltered by prenatal protein malnutrition. *Hippocampus*. **8**:380-9. PMID: 9744423
3. Lomber SG, Payne BR, Hilgetag CC, **Rushmore RJ**. (2002) Restoration of visual orienting into a cortically blind hemifield by reversible deactivation of posterior parietal cortex or the superior colliculus. *Experimental Brain Research*. **142**:463-74. PMID: 11845242
4. Hilgetag CC, Lomber SG, **Rushmore RJ**, Payne BR. (2002) Topographic restoration of visual spatial attention in the cortically blind cat. *Neurocomputing* **44-46**:831-35.
5. Payne BR, Lomber SG, **Rushmore RJ**, Pascual-Leone A. (2003) Cancellation of visuospatial lesion-induced spatial neglect. *Experimental Brain Research* 150:395-8. PMID: 12698319
6. **Rushmore, RJ**, Payne BR. (2003) Bilateral impact of unilateral visual cortex lesions on the superior colliculus. *Experimental Brain Research*. **151**:542-7. PMID:12802555
7. Payne BR, **Rushmore RJ**. (2004) Functional circuitry underlying natural and interventional cancellation of visual neglect. *Experimental Brain Research* **154**:127-53. PMID: 14625667
8. **Rushmore RJ**, Payne BR. (2004) Neuroplasticity after unilateral visual cortex damage in the newborn cat. *Behavioural Brain Research*. **153**: 557-565. PMID:15265654
9. Valero-Cabre A, **Rushmore RJ**, Lomber SG, Payne BR, Pascual-Leone A. (2005) Impact of repetitive transcranial magnetic stimulation fo the parietal cortex on metabolic brain activity: a 14C-2DG tracing study in the cat. *Experimental Brain Research* **163**:1-12. PMID:15688174
10. **Rushmore RJ**, Payne BR, Lomber SG. (2005) Functional impact of primary visual cortex deactivation on subcortical target structures in the thalamus and midbrain. *Journal of Comparative Neurology* **488**:414-426. PMID:1597368221.
11. **Rushmore RJ**, Valero-Cabre A, Lomber SG, Hilgetag CC and Payne BR. (2006) Functional circuitry underlying neglect and its reversal. *Brain* 129:1803-1821. PMID:16731540
12. Valero-Cabre A, **Rushmore RJ**, Payne B. (2006) Low frequency repetitive transcranial magnetic stimulation on the posterior parietal cortex induces transient contralateral visuo-spatial neglect-like syndrome. *Experimental Brain Research* **172**:14-21. PMID:16418849
13. Valero-Cabre A, **Rushmore RJ**, Payne BR. (2006) Non Invasive induction and cancellation of visuo-spatial deficits by repetitive Transcranial Magnetic Stimulation (rTMS): Lessons on “surgery-less” manipulation of complex visuo-spatial brain networks. *Rev Brasil Neurol* 2006: 73-83.
14. **Rushmore RJ**, Rigolo LR, Peer AK, Afifi L, Valero-Cabre A and Payne BR (2008) Age-dependng sparing of visual acuity following bilateral lesions of primary visual cortex. *Behavioral Neuroscience* 122:1274-83. PMID:19045947

15. Valero-Cabre A, Pascual-Leone A and **RJ Rushmore** (2008) Cumulative sessions of repetitive transcranial magnetic stimulation (rTMS) builds up facilitation to further TMS-mediated behavioral disruptions. *European Journal of Neuroscience* **27**: 765-74. PMID:18279329
16. Schweid L, **Rushmore RJ** and A Valero-Cabre (2008) Cathodal transcranial direct current stimulation (tDCS) on posterior parietal cortex disrupts visuo-spatial processing in the contralateral visual field. *Experimental Brain Research* **27**:765-774. PMID:18196224
17. Wagner T, **Rushmore J**, Eden U, Valero-Cabre A. (2009) Biophysical foundations underlying TMS: Setting the stage for an effective use of neurostimulation in the cognitive neurosciences. *Cortex* (Oct 22) **45**(9):1025-1034. PMID: 19027896
18. MacNeil MA, Purrier S, **Rushmore RJ**. (2009) The composition of the inner nuclear layer of the cat retina. *Visual Neuroscience*. 26(4):365-74. PMID:1968194
19. **Rushmore RJ**, Payne BR, Valero-Cabre A (2010) Recovery of function following unilateral damage to visuoparietal cortex. *Experimental Brain Research*. **203**(4):693-700. PMID: 20461362
20. Elkin-Frankston S, Fried P, Pascual-Leone A, **Rushmore RJ**, Valero-Cabre A (2010) A novel approach for documenting phosphenes induced by transcranial magnetic stimulation. *Journal of Visualized Experiments*. 38, pii 1762. PMID:20360672
21. Wolfe, **Rushmore RJ**, Valero-Cabre A (2010) Coping with spatial attention in real space: a low-cost portable testing system for the investigation of visuo-spatial processing in the human brain. *Journal of Neuroscience Methods*. **187**:190-8. PMID: 20079374
22. Elkin-Frankston S, Fried P, **Rushmore RJ**, Valero-Cabre A (2011) From Qualia to Quantia: A System to Document and Quantify Phosphene Percepts Elicited by Non-Invasive Neurostimulation of the Human Occipital Cortex. *Journal of Neuroscience Methods* **198**:149-57. PMID: 21419796
23. Fried P, Elkin-Frankston S, **Rushmore RJ**, Hilgetag CC, Valero-Cabre A. (2011) Characterization of visual percepts elicited by noninvasive stimulation of the human posterior parietal cortex. *PLoS ONE* 6(11):e27204, doi:10.1371/journal.pone.0027204. PMCID: 22087266
24. Afifi LM, **Rushmore RJ**, Valero-Cabre A. (2013) Benefits of multiple sessions of repetitive transcranial magnetic stimulation for an effective rehabilitation of visuo-spatial function. *European Journal of Neuroscience* 37(3): 441-54.* PMID: 23167832 Selected for the virtual issue, "Noninvasive Brain stimulation"
25. **Rushmore RJ**, Desimone C, Valero-Cabre A (2013) Multiple sessions of transcranial direct current stimulation to the intact hemisphere restores visual function after unilateral brain damage. *European Journal of Neuroscience* 38(12): 3799-807 PMID: 24118563 * Selected for the virtual issue, "Noninvasive Brain stimulation"
26. Wagner T, Eden U, **Rushmore J**, Russo CJ, Dipetro L, Fregni F, Simon S, Rotman S, Pitskel NB, Ramos-Estebanez C, Pascual-Leone A, Grodzinsky AJ, Zahn M, Valero-Cabre A. (2014) Impact of brain tissue filtering on neurostimulation fields: a modeling study. *Neuroimage* 85(3): 1048-57. PMID: 23850466
27. Fried P, **Rushmore RJ**, Moss MB, Valero-Cabre A, Pascual-Leone A (2014) Causal Evidence Supporting Functional Dissociation of Verbal and Spatial Working Memory in the Human Dorsolateral Prefrontal Cortex. *European Journal of Neuroscience* 39(11):1973-81. PMID: 24713032
28. McGaughy JG, Amaral A, **Rushmore RJ**, Mokler DM, Morgane PM, Rosene DL, Galler JR (2014) Prenatal Malnutrition Leads to Deficits in Attentional Set Shifting and Decreases Metabolic Activity in Prefrontal Subregions that Control Executive Function. *Developmental Neuroscience* **36**:532-41. PMID: 25342495

29. Amaral AC, Jakovcevski M, McGaughy JA, Calderwood SK, Mokler DJ, **Rushmore RJ**, Galler JR, Akbarian SA, Rosene DL (2015) Prenatal Protein Malnutrition Decreases KCNJ3 and 2DG Activity in Rat Prefrontal Cortex. *Neuroscience* 12:79-86. PMID: 25446346
30. O'Brien AT, Amorim R, **Rushmore RJ**, Eden U, Afifi, L, Dipietro, L, Wagner T, Valero-Cabre A (2016) Motor cortex neurostimulation technologies for chronic post-stroke pain: Implications of tissue damage on stimulation current. *Frontiers in Human Neuroscience* **10**:545.
31. Shashar M, Belghasem ME, Matsuura S, Walker J, Richards S, Alousi F, Rijal K, Kolachalama VB, Balcells M, Odagi M, Nagasawa K, Henderson JM, Gautam A, **Rushmore R**, Francis J, Kirchhofer D, Kolandaivelu, Sherr DH, Edelman ER, Ravid K, Chitalia VC (2017) Targeting STUB1-tissue factor axis normalizes hyperthrombotic uremic phenotype without increasing bleeding risk. *Science Translational Medicine* **9**(417). pii: eam8475. doi: 10.1126/scitranslmed.aam8475.
32. Valero-Cabre A, Toba MN, Hilgetag CC, **Rushmore RJ** (2019) Perturbation-driven paradoxical facilitation of visuo-spatial function. *Cortex*, 122:10-39
33. Mokler, DJ, McGaughy JA, Bass D, Morgane PJ, Rosene DL, Amaral AC, **Rushmore RJ**, Galler JR (2019) Cerebral hemispheric differences in the extracellular concentrations of norepinephrine, dopamine and serotonin in the medial prefrontal cortex of adult rats exposed to prenatal protein malnutrition. *Frontiers in Neuroscience*, <https://doi.org/10.3389/fnins.2019.00136>
34. Toba MN, Hilgetag CC, Gilderoy O, **Rushmore RJ**, Valero-Cabre A (2020) Revisiting 'brain modes' in a new computational era: From univariate to multivariate approaches., *Brain*, pii: awz343
35. Toba MN, Malherbe C, Gilderoy O, **Rushmore RJ**, Zavaglia M, Maatoug, R, Mandonnet E, Valero-Cabre A, Hilgetag CC (2020) Inhibition between brain areas or methodological artifact *Brain*, *awaa093*
36. **Rushmore RJ***, Elkin-Frankston S*, Valero-Cabre A (2020) Low frequency transcranial magnetic stimulation of right posterior parietal cortex reduces reaction time to perithreshold low spatial frequency stimuli. *Sci Reports* 10(1):3162
37. **Rushmore RJ**, Bouix S, Kubicki M, Rathi, Y, Yeterian E, Makris, E. (2020) How human is human connectional neuroanatomy? *Frontiers in Neuroanatomy* 15 April 2020, <https://doi.org/10.3389/fnana.2020.00018>
38. **Rushmore RJ**, Bouix S, Kubicki M, Rathi, Y, Rosene DL, Yeterian E, Makris, E. (2020) MRI-based Parcellation and Morphometry of the Individual Rhesus Monkey Brain: a translational system referencing a standardized ontology. *Brain Imaging Behavior*, *in press*
39. **Rushmore RJ**, Makris N, Wilson-Braun P, Papadimitriou G, Ng I, Rathi Y, Zhang F, O'Donnell L, Kubicki M, Yeterian W, Lemaire JJ, Calabrese E, Johnson GA, Kikinis R, Makris N. (2020) 3D Exploration of the Brainstem in 50-micron Resolution MRI. *Frontiers in Neuroanatomy*, *in press*.

Symposium and Other Publications

1. Valero-Cabre A., Kurtev S, Voitcu R, Jin Y, **Rushmore RJ**, Hilgetag C. (2008) Key cortical subregions involved in basic visuo-spatial tasks: systematic TMS mapping study of bilateral human parietal cortex. *Brain Stimulation* 1(3):290.
2. Afifi L, **Rushmore R**, Japp B, Valero-Cabre A. (2008) High-frequency rTMS applied to perilesional cortex ameliorates visuospatial deficits following focal posterior parietal damage. *Brain Stimulation* 1(3):276.

3. Valero-Cabre A, Afifi L, **Rushmore RJ**, Japp B, Hilgetag C, Jedd A (2008) When opposite frequencies lead to same behavioral effects: A case for reversible disconnection syndrome induced by rTMS on visuo-spatial networks? *Brain Stimulation* 1(3):289-90.
4. MacNeil MA, Purrier S, **Rushmore RJ**. (2009) Degeneration of beta ganglion cells in development leads to selective death of cells in the inner nuclear layer. *IOVS*: 50(13):5688-5688.
5. Valero-Cabre A., Desimone C, Afifi, L., Rushmore J. (2011) An intensive daily regime of transcranial direct current stimulation (tDCS) improves enduring visuospatial neglect: lessons from an experimental study in felines. *Clin. Neurophysiol.* S151.
6. Mokler D, Fisher L, Rosene D, Amaral A, **Rushmore R**, Galler J and McGaughy J (2015) Prenatal protein malnutrition in the rat reduces extracellular norepinephrine in the ventral medial prefrontal cortex and impairs performance in attentional set shifting *The FASEB Journal* 29(1):769.8.
7. Amaral A, Wang X, Mortazavi F, McGaughy J, Mokler D, Galler J, **Rushmore R**, Rosene D (2015) Prenatal protein malnutrition increases activation of parvalbumin interneurons but decreases overall activation in the prefrontal cortex of adult rats. *The FASEB Journal* 29(1):754.24.

Reviews and Book Chapters

1. Payne BR, **Rushmore RJ**. (2002) The special relationship between beta retinal ganglion cells and primary visual cortex. In: *Cat Primary Visual Cortex*, (BR Payne, A Peters, editors) pp 561-608, Academic Press, San Diego.
2. Payne BR, **Rushmore RJ**. (2003) Animal models of cerebral neglect and its cancellation. *Neuroscientist* 9:446-54. PMID: 14678577
3. **Rushmore RJ**. (2012) The Dynamic Brain: An exploration of neuronal variability and its functional significance. *JAMA*. 307(11):1205-1206.

Manuscripts in Review

1. **Rushmore RJ**, McGaughy J, Amaral AC, Mokler D, Galler JR, Rosene, DL (2020) The neural basis of attentional alterations in prenatally protein malnourished rats *Cerebral Cortex*

Educational Materials

1. Farah G & **Rushmore RJ** www.brainanatomy.info (2017) Website for medical neuroanatomy, with quiz resources.

Non-peer Reviewed Published Work

1. Makris N, **Rushmore RJ**, Wilson-Braun P, Papadimitriou G, Ng I, Rathi Y, Zhang F, O'Donnell L, Kubicki M, Yeterian W, Lemaire JJ, Calabrese E, Johnson GA, Kikinis R. (2019) 3D Exploration of the Brainstem in 50-micron Resolution MRI. *BioRxIV*
2. **Rushmore RJ**, Bouix S, Kubicki M, Rathi Y, Yeterian EH, Makris N. (2019) MRI-based Parcellation and Morphometry of the Individual Rhesus Monkey Brain: a translational system referencing a standardized ontology. *BioRxIV*