



PHILIP MONTENIGRO

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EDUCATION

- M.D., Ph.D.** **Boston University M.D./Ph.D. Combined Degree Program (Boston, MA)** *Anticipated-2018*
M.D., Step-1 USMLE Board Certification, Massachusetts 2012
Ph.D., Qualified Candidate, Dept. of Anatomy and Neurobiology
Certificate, Vesalius Certificate in Teaching Anatomy and Neurobiology
- B.S.** **Boston University's Metropolitan College (Boston, MA)** 2009
Major in Biology, Concentration in neuroscience
Magna Cum Laude, Ranked in the top 10% of graduating class

HONORS AND AWARDS

- Provost's PhD Award**, Office of the Provost, BU School of Medicine, *For exceptional research contribution* 2015
Community Service Award, BU Graduate Medical Sciences, *For Vesalius Project on mTBI & homelessness* 2015
Henry I Russek Student Achievement Award, 2nd place, *For dedication and outstanding performance* 2014
Community Service Award, BU Graduate Medical Sciences, *For outstanding volunteer service & mentorship* 2014
GMS Travel Award, BU School of Medicine, *To present new diagnostic criteria for CTE at Keystone CO* 2014
Sigma Xi Scientific Research Honor Society, Inductee, *Demonstrated noteworthy achievement in research* 2014
Kappa Delta Pi International Honors Society in Education, Inductee, *In recognition of commitment to teaching* 2014
GMS Travel Award, BU Graduate Medical Sciences, *To present mTBI latent dose-effect model San Francisco* 2013
Howard Gotlieb Archival Research Center Award, 2nd prize, *For a private "Punch-drunk Book Collection"* 2013
Serchuck Award for Outstanding Clinical Science Poster, MSSR Symposium, *Honorable Mention* 2012
Medical Student Summer Research Scholarship, BU School of Medicine, *Awarded to competitive applicants* 2011
Alpha Sigma Lambda National Honors Society, RCC, *For academic excellence while facing adversity* 2006-2009
Directed Senior Research Study, BU, Molecular Neuropharmacology Group, *For qualified students* 2007-2008
Phi Sigma Omicron, Talented Student Honors Program, *Highest attainable honor from the program* 2003

RESEARCH

- Boston University School of Medicine, Department of Anatomy and Neurobiology** 2010 - Present
Dissertation Research
Mentors: Robert A. Stern, Ph.D. (primary), Robert C. Cantu M.D., Ann C. McKee M.D.
Laboratory: Chronic Traumatic Encephalopathy Center
Project: Developing and validating clinical research diagnostic criteria for CTE and modeling the relationship between exposure to repetitive head impacts and the latent development of neurobehavioral impairments and probable-CTE.
- Boston University, UROP Undergraduate Research** 2007 - 2008
Directed Senior Research Study for Qualified Students
Mentor: Jiang-Fan Chen M.D., Ph.D.
Laboratory: Molecular Neuropharmacology Group
Project: Using a novel adenosine receptor knockout mouse model our team clarified the neuroprotective role of the Adenosine A2A receptor in Parkinson's disease
- New York University** 2002
Summer Research Intern
Supervisor: Steven Kurtz, Ph.D., ABPP
Clinic: Child Study Center

Project: Conducted field-research with children in the public school setting who suffered from selective mutism. Results were used to develop clinical protocols to facilitate mainstream readjustment and reentry of children into the public school environment.

PEER-REVIEWED ARTICLES

Acta Neuropathologica | Alzheimer's Research & Therapy | Annual Review of Clinical Psychology
Brain Pathology | Current Sports Medicine Reports | Journal of Neurotrauma | Neurology | Seminars in Neurology

1. **Montenigro PH**, Alosco ML, Martin BM, Daneshvar D, Mez J, Chaisson C, Nowinski CJ, Au R, McKee AC, Cantu RC, McClean DM, Stern RA, Tripodis Y. "**Cumulative head impact exposure predicts later-life depression, apathy, executive dysfunction, and cognitive impairment in former high school and college Football Players.**" (ahead of print) Journal of Neurotrauma 2016. [\[Link\]](#)
2. **Montenigro PH**, Bernick C, Cantu RC. "**Clinical features of repetitive traumatic brain injury and chronic traumatic encephalopathy.**" Brain pathology 2015, Volume 25, Pages 304-317, PMID: 25904046. —Among the journal's **Top 20 Downloaded Articles of 2015.**
3. **Montenigro PH**, Corp DT, Stein T, Cantu RC, Stern RA. "**Chronic traumatic encephalopathy: Historical origins and current perspective.**" Annual Review of Clinical Psychology 2015, Volume 11, PMID: 25581233. —**Impact Factor 12.9** [\[Link\]](#). [Article's supplementary materials](#) [\[Link\]](#).
4. Stein TD, **Montenigro PH**, Alvarez VE, Weiming X, Alvarez VE, Crary J, Daneshvar DH, Meng G, Kubilus C, Cormier KA, Meng S, Mez J, Solomon T, Kiernan P, Murphy L, Martin B, Dixon D, Kowall N, Stern RA, McKee AC. "**Beta-amyloid accumulation in chronic traumatic encephalopathy.**" Acta Neuropathologica 2015, Volume 130, Pages 21-34, PMID: 25943889.
5. Kiernan PT, **Montenigro PH**, Solomon T, McKee A. "**Chronic traumatic encephalopathy: a neurodegenerative consequence of repetitive traumatic brain injury.**" Seminars in Neurology 2015, Volume 35, Pages 20-28, PMID: 25714864.
6. Mez J, Solomon TM, Daneshvar DH, Murphy L, Kiernan PT, **Montenigro PH**, et al. "**Assessing clinicopathological correlation in chronic traumatic encephalopathy: rationale & methods for the UNITE study.**" Alzheimer's Research & Therapy 2015, Volume 7, PMID: 26455775.
7. **Montenigro PH**, Baugh CM, Daneshvar DH, Mez J, Budson AE, Au R, Katz D, Cantu RC, Stern RA. "**Clinical subtypes of chronic traumatic encephalopathy: literature review and proposed research diagnostic criteria for traumatic encephalopathy syndrome.**" Alzheimer's Research & Therapy 2014, Volume 6, Pages 1-17, Pages 28-32, PMID: 25580160. —Among the journal's **Most Viewed of the Last year and the Last 30 days** [\[Link\]](#).
8. Baugh CM, Kiernan PT, Kroshus E, Daneshvar DH, **Montenigro PH**, McKee AC & Stern RA. "**Frequency of head impact related outcomes by position in NCAA Division I collegiate football players.**" Journal of Neurotrauma 2014, doi: 10.1089/neu.2014.3582.
9. **Montenigro PH**, Stern RA. "**Author response clinical presentation of chronic traumatic encephalopathy.**" Neurology 2014, Volume 83, Pages 1991-1993, PMID: 25404647.
10. Stern RA, Daneshvar DH, Baugh CM, Seichepine DR, **Montenigro PH**, Riley DO, Fritts NG, Stamm JM, Robbins CA, McHale L, Simkin I, Stein TD, Alvarez VE, Goldstein LE, Budson AE, Kowall NW, Nowinski CJ, Cantu RC, McKee AC. "**Clinical presentation of chronic traumatic encephalopathy.**" Neurology 2013, Volume 81, Pages 1122-1129, PMID: 23966253.
11. Juneyoung JY, Padalino DJ, Chin LS, **Montenigro PH**, Cantu RC. "**Chronic traumatic encephalopathy.**" Current Sports Medicine Reports 2013, Volume 12, Pages 28-32, PMID: 23314081. —Listed among journal's **Most Popular and Most Emailed** articles of 2013.

Book Chapters

12. **Montenigro PH**, Sisniega DC, Cantu RC. "**Cumulative effects of repeated concussion and chronic traumatic encephalopathy**" in *Manual of Traumatic Brain Injury: Assessment and Management*, 2nd edition, F.S. Zollman, Editor. (accepted), Demos Medical Publishing.
13. **Montenigro PH**, Sisniega DC, Cantu RC. "**Prevention of sports related concussion and brain injury**" in *Manual of Traumatic Brain Injury: Assessment and Management*, 2nd edition F.S. Zollman, Editor. (accepted), Demos Medical Publishing.
14. **Montenigro PH** et al. (2014). Clinical subtypes of CTE: literature review and proposed research diagnostic criteria for TES. In: *Biomedical Research*: Volume 46, ed. Bonnar J, Applied Research Press.

Forthcoming

15. Alosco ML, Mez J, Kowall NW, Stein TD, Goldstein LE, Cantu RC, Katz DI, Solomon TM, Kiernan PT, Murphy L, Abdolmohammadi B, Daneshvar D, **Montenigro PH**, Nowinski CJ, Stern RA, McKee AC. **“Cognitive reserve as a modifier of clinical expression in chronic traumatic encephalopathy.”** (in preparation) Journal of Neuropsychiatry and Clinical Neurosciences.
16. **Montenigro PH**, Chapman K., Stein TD, et al, and Stern RA. **“Validity of clinical research diagnostic criteria for chronic traumatic encephalopathy.”** (in preparation) JAMA Neurology.

REFEREED ABSTRACTS

1. Mez j, Solomon TM, Daneshvar DH, **Montenigro PH**, Kiernan PT, Murphy L, Kriegel J, Abdolmohammadi B, Alosco M, Stein TD, Goldstein LE, Katz DI, Kowall NW, Cantu RC, Stern RA, McKee AC. **“Validity of Clinical Research Criteria for Chronic Traumatic Encephalopathy: The Understanding Neurologic Injury and Traumatic Encephalopathy (UNITE) Study.”** Neurology 2016.
2. **Montenigro PH**. **“Clinical features and diagnosis of chronic traumatic encephalopathy.”** Journal of Neurology & Experimental Neuroscience 2015, Volume 1, Supplement 1, Volume 1, Supplement: S10-S11. [\[LINK\]](#)
3. **Montenigro PH**, Victor Alvarez, Robert A. Stern, Ann C. McKee, Thor D. Stein. **“Beta-amyloid in traumatic encephalopathy, AD, and aging: evidence for non-overlapping etiologies.”** Harvard NeuroDiscovery Center's 28th Annual Research Symposium: Disentangling Tau, MGH and BUSM Alzheimer's Disease Centers, Boston MA, Conference Proceedings 2015. [\[LINK\]](#)
4. McKee AC, Alvarez V, Bieniek K, Cairns N, Crary J, Dams-O'Connor K, Folkerth R, Keene D, Litvan I, Montine T, **Montenigro PH**, Perl D, Stein T, Stewart W, Tripodis Y, Vonsattel JP, Gordon W, Dickson D. **“Preliminary results of the NINDS/NIBIB consensus conference to evaluate pathological criteria for the diagnosis of CTE.”** Neurology 2015, Volume 84. [\[LINK\]](#)
5. Kiernan P, Murphy L, Mez J, Solomon T, Daneshvar D, **Montenigro PH**, Nowinski C, Adams J, Babcock K, Goldstein L, Cantu R, Katz D, Kowall N, Stern R, Alvarez V, Stein T, McKee A. **“Clinicopathological findings in 100 former NFL players.”** Journal of Neurotrauma 2015, Volume: 32, Issue 12, DOI: 10.1089/neu.2015.29000. abstracts. [\[LINK\]](#)
6. Murphy L, Mez J, Solomon T, Daneshvar D, **Montenigro PH**, Kowall N, Katz D, Stern R, Cantu R, Kriegel J, Abdolmohammadi B, Stein T, Alvarez V, McKee A. **“The UNITE study: understanding chronic traumatic encephalopathy through clinicopathological correlation: Methods & instructive cases.”** 1st Annual Boston University Neurology Research Symposium, BUSM, Boston MA, Conference Proceedings 2015. [\[LINK\]](#)
7. **Montenigro PH**, Stern RA. **“Chronic traumatic encephalopathy: clinical subtypes and diagnostic criteria.”** 29th Annual MD/PhD Conference, Keystone CO, Conference Proceedings 2014.
8. **Montenigro PH**, Tripodis Y, Daneshvar DH, Seichepine DR, Baugh CM, Robbins CA, Riley DO, Fritts NG, Martin B, Nowinski CJ, McKee AC, Cantu RC, McClean M, Stern RA. **“A linear dose-response relationship between self-reported concussions and later-life neurobehavioral functioning in former football players.”** Brain Injury 2014, Volume 28, Pages 790–791, DOI: 10.3109/02699052.2014.892379.
9. **Montenigro PH**, Tripodis Y, Stern RA, Cantu RC. **“Football related concussions & neurobehavioral impairment: what's the relationship?”** Global Biotechnology Congress, GBT Conference Proceedings 2014.
10. Tripodis Y, **Montenigro PH**, Stern RA. **“Statistical analysis of concussion history and executive function.”** New England Symposium on Statistics in Sports, Boston MA, NESIS Conference Proceedings 2013.

PRESENTATIONS

- Clinicopathologic phenotypes of chronic traumatic encephalopathy: distinct traumatic risk-factors** 2016
Montenigro PH, Cantu RC
International State-of-the-Science Meeting on “Does Repeated Blast-Related Trauma Contribute to the Development of Chronic Traumatic Encephalopathy (CTE)?” Department of Defense, McLean Va
Oral presentation [\[LINK\]](#) [\[LINK\]](#)

Validity of clinical research criteria for CTE: The UNITE study Mez j, Solomon TM, Daneshvar DH, Montenigro PH , et al. American Academy of Neurology, Vancouver, BC, Canada Annual Meeting Oral presentation	2016
Clinical features and diagnosis of chronic traumatic encephalopathy Montenigro PH Neurological Disorders Summit, Session on Diagnostics of Neurological Disorders, San Francisco CA Oral presentation	2015
Beta-amyloid in traumatic encephalopathy, AD, and aging: evidence for non-overlapping etiologies Montenigro PH , Victor Alvarez, Robert A. Stern, Ann C. McKee, Thor D. Stein Boston University School of Medicine, Graduate Research Symposium Award Luncheon, Boston MA Oral presentation - Provost's PhD Award	2015
Beta-amyloid in chronic traumatic encephalopathy Montenigro PH , Victor Alvarez, Robert A. Stern, Ann C. McKee, Thor D. Stein Harvard NeuroDiscovery Center's 28th Annual Poster Symposium, Boston MA Poster presentation	2015
Chronic traumatic encephalopathy: clinical subtypes and diagnostic criteria Montenigro PH , Stern RA 29th Annual National MD/PhD Student Conference, Keystone CO Poster presented	2014
Subconcussive impacts and the risk of later-life depression and cognitive Impairment Montenigro PH , Baugh CM, Cantu RC, Daneshvar DH, Martin B, McClean M, McKee AC, et al., Boston University Russek Student Achievement Day, Boston MA Poster presented - Recipient of a Henry I. Russek Student Achievement Award	2014
Football related concussions & neurobehavioral impairment: what is the relationship? Montenigro PH , Tripodis Y, Stern RA, Cantu RC Global Biotechnology Congress, Boston MA Poster presented	2014
Dose-response effect of multiple concussions on later-life neurobehavioral function Montenigro PH , Tripodis Y, Daneshvar DH, Seichepine DR, et al., International Brain Injury Association's Tenth World Congress on Brain Injury, San Francisco CA Poster presented	2014
Statistical analysis of concussion history and executive function Tripodis Y, Montenigro PH , Stern RA Harvard University's New England Symposium on Statistics in Sports, Boston MA Poster presented	2013
Subconcussive load effect & trauma profile for chronic traumatic encephalopathy Montenigro PH , Cove C, Crowell M, Nowinski N, Cantu RC, Stern RA Boston University Medical Student Summer Research Symposium, Boston MA Poster presented - Serchuck Award for Outstanding Clinical Science Poster, Honorable Mention	2012
INVITED TALKS	
Beta-amyloid in traumatic encephalopathy, AD, and aging: evidence for non-overlapping etiologies Graduate Research Symposium Awards Luncheon, Office of the Provost Invited by Associate Provost Timothy Barbari	2015
Chronic traumatic encephalopathy & the long-term consequences of repetitive TBI Research Seminar Series, Department of Anatomy and Neurobiology Program Director, Jennifer Luebke Ph.D.	2014
Unique neuropathology following repeated concussions and subconcussions Graduate Student Lecture, M.D.-Ph.D. Dual Degree Program at Boston University Program Director, John H. Schwartz M.D.	2012

RESEARCH SUPPORT

Boston University School of Medicine <i>Department of Graduate Medical Science</i>	2014
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Title: Long-term Effects of Sports-Related Concussions
Role: Recipient
Type: Grant-in-Aid of Research
Status: Completed

Boston University School of Medicine 2011
Medical Student Summer Research Grant
Title: Exposure Variables and Symptoms of Chronic Traumatic Encephalopathy
Role: Recipient
Type: Research Scholarship
Status: Completed

TEACHING

Boston University College of Health and Rehabilitation Sciences: Sargent College
Lecturer, by invitation of course director
1. Abnormal Psychology 2015

Boston University's Undergraduate Metropolitan College
Lecturer, by invitation of course directors
1. Sports Neuropsychology 2014
2. How The Brain Works: An Introduction to Neuropsychology 2013
3. General Psychology 2012

Department of Anatomy and Neurobiology
Lecturer, Vesalius program trainee, *-In fulfillment of 240+ teaching hours requirement*
4. Neuroscience for Medical Students 2014-2015
5. Gross Anatomy for Dental Students 2012-2015
6. Gross Brain Anatomy for Medical Students 2012-2014

Boston University School of Medicine
Small Group Facilitator, by invitation of course director
1. Infectious Disease, (BUSM II) Disease and Therapy 2012-2013
2. Medical Neuroscience, (BUSM I) 2012

Boston University School of Medicine
Tutor, for Graduate Medical Sciences
1. Neuroscience 2013-Present
2. Gross Anatomy 2013-Present
3. Physiology 2013

Sports Legacy Institute Community Educator (SLICE)
A concussion education program for student-athletes
1. BU SLICE Chapter Co-Director 2012
2. BU SLICE Community Educator 2010-2011

ACADEMIC PANELS & COMMITTEES

Boston University School of Medicine
Panelist, by invitation of the Assistant Dean of Student Affairs
1. Programs in Research, Service Learning, and International Health 2011-Present
2. Prospective Students (BUSM I) & First year student orientation (BUSM I) 2011-2013
3. Pursuing Research as a Medical Student (BUSM I and II) 2011

Boston University School of Medicine
Student Advisory Committee, elected by peers to voice curricular concerns to course directors
1. Student Advisory Committee (SAC) for Biochemistry 2010
2. Student Advisory Committee (SAC) for Histology 2011

Boston University
Panelist, by invitation of Dr. Zamansky and the Office of Pre-professional Advising
1. A successful medical, dental, and veterinary school application and interview 2010

PEER MENTOR

Kevin Arndt, applicant 2013, **Matriculated** 2014 to Boston University School of Medicine

Danielle Borin, applicant 2013, **Matriculated** 2014 to Ohio Medical University
Alexandra Bourlas, applicant 2014, **Matriculated** 2015 to Virginia Osteopathic Medical School
Danielle Eble, applicant 2014, **Matriculated** 2015 to Boston University School of Medicine
Nate Fritts, applicant 2014, **Matriculated** 2015 to OHSU Medical School
Josh Kriegel, applicant 2014, **Matriculated** 2015 to Boston University School of Medicine

ADHOC PEER-REVIEW

Journal of Neurotrauma	2015-Present
PLOS ONE	2014-Present
Brain Injury	2014-Present
Clinical Journal of Sport Medicine	2013-Present
Yale Journal of Biology and Medicine	2011-Present

SOCIETY MEMBERSHIPS

American College of Sports Medicine	2014-Present
American Association for the History of Medicine	2014-Present
North American Society for Sport History	2014-Present
American Academy of Neurology	2013-Present
National Neurotrauma Society	2013-Present
American Medical Association	2010-Present
Massachusetts Medical Society	2010-Present

OTHER ACTIVITIES

Chronic Traumatic Encephalopathy Archive, CTEArchive.com, founder & owner, <i>not-for-profit organization</i>	2014
eClinic Online, <i>physician liaison and virtual clinic videography</i>	2011-2012
Boston Health Care for the Homeless Program, <i>past-employee (5^{yrs}) and current-volunteer (4^{yr})</i>	2005-Present
HIV/AIDS Home-care Project, <i>medical team coordinator with World Health Organization</i>	2007

ACADEMIC PROFILES

Personal Website: <http://philipmontenigro.com>

Research Gate: https://www.researchgate.net/profile/Philip_Montenigro

BU Profile: <http://profiles.bu.edu/Philip.Montenigro>



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