

State Board of Chiropractic Examiners

To Whom It May Concern:

This letter is to state that through a contract with Parker University and the Director of Parker Professional Programs, the below instructor(s) are of post-graduate level and affiliated with Parker University to teach the courses covered for “Parker Seminar NeuroCon 2024. The documentation appears to fall within chiropractic guidelines of the various state boards.

Parker University
Continuing Education
2540 Walnut Hill Lane
Dallas, Texas 75229
www.parker.edu

| | | |
|----------------------|---------------|----------------|
| Christopher Nowinski | LC Wright | Richard Harris |
| William E. Morgan | Tali Sharot | |
| Nicky Kirk | LC Wright | |
| Jeffery Rediger | Marc Milstein | |

Please contact me if further information is needed, my direct phone number is 214-902-3492, or via email at pfrase@parker.edu.

Sincerely,



Phyllis Frase-Charrette
Director of Professional Programs

METHOD OF CERTIFYING ATTENDANCE AT THE SEMINAR

1. **Name of course:** Parker Seminar NeuroCon 2024
2. **Organization sponsoring the course:** Parker University
3. **Course Objective:** To enhance the expertise of the Chiropractic Professional.
4. **Study hours required:** 11 DC hours
5. **Instructor(s):**

| | | |
|----------------------|---------------|----------------|
| Christopher Nowinski | LC Wright | Richard Harris |
| William E. Morgan | Tali Sharot | |
| Nicky Kirk | LC Wright | |
| Jeffery Rediger | Marc Milstein | |

6. Educational background and experience of the instructor(s) are on file in the University offices.
7. **Attendance verification method and certifying officer:** A photo identification is required to obtain the sign-in and out badge/card. Full credit for attendance is contingent upon full attendance. The Online/Webinar portion is delivered via web broadcast through the Cvent web platform. There is a two-point sign in verification that takes place between the Cvent platform and Parker University's registration to verify the person attending. The live and Webinar platform will capture the time the participant spends in each course while logging and tracking their movement through the platform. In addition, questions will be sent to attendees to verify their participation. The computerized log files that track the participant's access time and usage will be utilized to validate the attendance and participation. Upon successful completion of viewing the segment, Parker University Continuing Education Department will maintain and distribute attendance records.
8. Textbooks and/or equipment required: N/A
9. Outline of material covered: Attached
10. Location(s): Dallas, TX and Online
11. Date(s): July 26-27, 2024

NeuroCon

Friday, July 26, 2024

| | | | |
|-----------------|---|---|---|
| 7:00 - 8:00 AM | | Registration Opens | |
| 8:00 - 9:00 AM | 1 | Concussions & CTE: Insights from a Life Bashing Heads Christopher Nowinski DC CE | 1 |
| 9:00 - 9:30 AM | | Confirmed Welcome address | |
| 9:30 - 11:30 AM | 2 | Transforming Amputee Outcomes: Practical Insights for Healthcare Providers William E. Morgan DC CE | 2 |
| 11:30 - 1:00 PM | | LUNCH | |
| 1:00 - 2:00 PM | 1 | Advanced Techniques in Rehabilitation: Blood Flow Restriction and Concussion Management Nicky Kirk DC CE | 1 |
| 2:00 - 2:30 PM | | BREAK | |
| 2:30 - 3:30 PM | 1 | The Four Pillars of Healing and Wellbeing Jeffery Rediger DC CE | 1 |
| 3:30 - 4:00 PM | | BREAK | |
| 4:00 - 5:30 PM | 0 | Andrew Huberman Insights with Andrew Huberman NO CE | 0 |

5 CE hours

Saturday, July 27, 2024

| | | | |
|-----------------|---|--|---|
| 7:00 - 8:00 AM | | Registration Opens | |
| 8:00 - 9:00 AM | 1 | How to Prepare for the Precision Treatment Era: A Genomic Perspective on Health and Disease Katheron Intson DC CE | 1 |
| 9:00 - 9:30 AM | | BREAK | |
| 9:30 - 11:30AM | 2 | Sports-Related Concussion and Its Relationship to Recurring Musculoskeletal Injuries LC Wright DC CE | 2 |
| 11:30 - 1:00 PM | | LUNCH | |
| 1:00 - 2:00 PM | 1 | Look Again: How to Notice and Change Tali Sharot DC CE | 1 |
| 2:00 - 2:30 PM | | BREAK | |
| 2:30 - 3:30 PM | 1 | Myth Busters: Neurology Edition Richard Harris DC CE | 1 |
| 3:30 - 4:00 PM | | BREAK | |

| | | |
|----------------|---|---|
| 4:00 - 5:30 PM | 1 | Age-Proof Your Brain Marc Milstein DC CE |
|----------------|---|---|

6 CE HOURS

1

LEARN FROM WORLDWIDE LEADERS ON THE DISORDERS OF THE NERVOUS SYSTEM

Seminar Dates: July 26 - 27, 2024

Seminar Location: Parker University Campus

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Continuing Education Department
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Doctor of Chiropractic CE ATTENDANCE VOUCHER

Course Title: NeuroCon 2024
 Course No.:
 Location: Dallas, TX
 Seminar Dates: July 26-27, 2024
 Friday: 7:00am-5:30pm
 Saturday: 7:00am-5:30pm

STATE [only one per voucher]: _____ YOUR STATE DC LICENSE #: _____

| Time | Instructors Name | Topic of Discussion | CE Hours |
|--------------------------------|----------------------|--|----------|
| Friday, July 26, 2024 | | | |
| 8:00am - 9:00am | Christopher Nowinski | Concussions & CTE: Insights from a Life Bashing Heads | |
| 9:30am - 11:30am | William E. Morgan | Transforming Amputee Outcomes: Practical Insights for Healthcare Providers | |
| 1:00pm - 2:00pm | Nicky Kirk | Advanced Techniques in Rehabilitation: Blood Flow Restriction and Concussion Management | |
| 2:30pm - 3:30pm | Jeffery Rediger | The Four Pillars of Healing and Wellbeing | |
| Saturday, July 27, 2024 | | | |
| 8:00am - 9:00am | Katheron Intson | How to Prepare for the Precision Treatment Era: A Genomic Perspective on Health and Disease | |
| 9:30am - 11:30am | LC Wright | Sports-Related Concussion and Its Relationship to Recurring Musculoskeletal Injuries | |
| 1:00pm - 2:00pm | Tali Sharot | Look Again: How to Notice and Change | |
| 2:30pm - 3:30pm | Richard Harris | Myth Busters: Neurology Edition | |
| 4:00pm - 5:00pm | Marc Milstein | Age-Proof Your Brain | |
| TOTAL CE HOURS | | | |

Board Approval Number: _____

Phyllis Frase Charrette, Director Parker Professional Programs

PLEASE VERIFY UPON RECEIPT. INQUIRIES REGARDING ANY DISCREPANCIES WILL BE ACCEPTED UP TO 6 MONTHS AFTER THE CLOSING DATE OF THE SEMINAR. ANY REPLACEMENT OF THIS VOUCHER, COPY OR FAX WILL INCUR A FEE OF \$35 PER VOUCHER.

Instructor: Christopher Nowinski, PhD

Duration: 1 Hour

Course Title: Concussions & CTE: Insights from a Life Bashing Heads

Course Description:

In this course, you will be able to identify the mechanism and the etiology of a concussion and chronic traumatic encephalopathy. Dr. Nowinski will discuss evidence for repetitive head impacts causing CTE while discussing the prevention of concussions and CTE in sports. Whether you are a doctor treating patients with concussions or have children playing sports, your awareness will be heightened by the latest research studies.

Learning Objectives:

- Identify the etiology of concussion and chronic traumatic encephalopathy.
- Preventive measures for concussions
- Statistics of CTE in sports.

Patient Outcomes:

- Awareness of concussions and CTE symptoms
- Diagnosis of concussions and CTE

Outline:

Alarming Statistics

- Statistics of concussions **0-15 minutes**
- Statistics of CTE

Mechanism of Concussions

15-30 minutes

- Etiology
- The neurometabolic cascade of concussion
- Diagnostic tools

CTE Chronic Traumatic Encephalopathy

30-45 minutes

- Review of CTE
- Head impact research
- Evidence through Brad Hill Criteria

Prevention and Protocol

45-60 minutes

- Steps to take to prevent Concussions
- Parent and Community Education

Christopher J. Nowinski, Ph.D.

Curriculum Vitae:

Concussion Legacy Foundation
361 Newbury Street, 5th Floor
Boston, MA 02115
nowinski@concussionfoundation.org
ConcussionFoundation.org

Education:

- A.B. Harvard University, 2000, *cum laude*.
- Ph.D., Behavioral Neuroscience, Boston University School of Medicine. 2017.

Employment:

- Founding CEO, Concussion Legacy Foundation, Boston, MA. 2007 – *current*
- Founding Co-Director, Center for the Study of Traumatic Encephalopathy, Boston University School of Medicine. 2008 – 2014
- Consultant, Trinity Partners, LLC, Waltham, MA. Global Life Sciences Management Consulting. 1999-2002, 2005 to 2010
- Professional Wrestler, Spokesperson. World Wrestling Entertainment, Stamford, CT. 2002-2007

Appointments:

- Outreach, Recruitment, Education, and Public Policy Leader, Boston University CTE Center. 2014-*current*
- Executive Committee, Boston University Alzheimer's Disease and CTE Center. 2014-*current*
- Mackey-White Health and Safety Committee, National Football League Players Association. 2009-*current*
- Consultant, Ivy League Multi-Sport Concussion Committee. 2010-*current*
- National Advisory Board, Positive Coaching Alliance. 2014-*current*
- Member, Big Ten/CIC-Ivy League Traumatic Brain Injury Research Collaboration, 2013-*current*
- External Reviewer, CDC Report to Congress on the Management of TBI in Children, 2016.
- External Judging Panel, NCAA & US Department of Defense Mind Matters Challenge, 2015.
- Board of Directors, Brain Injury Association of America. 2009-2012
- Advisor, Major League Lacrosse. 2013-2020
- Advisory Board, Kevin Turner Foundation. 2011-2016

Fellowships:

1. Eisenhower Fellow, 2011- *current*.
2. PolicyVets Fellow, 2021- *current*.

Scientific Publications:

1. Saltiel, N., Tripodis, Y., Menzin, T., Olaniyan, A., Baucom, Z., Yhang, E., Palmisano, J.N., Martin, B., Uretsky, M., Nair, E., Abdolmohammadi, B., Shah, A., Nicks, R., **Nowinski, C.**, Cantu, R.C., Daneshvar, D.H., Dwyer, B., Katz, D.I., Stern, R.A., Alvarez, V., Huber, B., Boyle, P.A., Schneider, J.A., Mez, J., McKee, A., Alosco, M.L. and Stein, T.D. (2023), Relative contributions of mixed pathologies to cognitive and functional symptoms in brain donors exposed to repetitive head impacts. *Ann Neurol*. Accepted Author Manuscript. <https://doi.org/10.1002/ana.26823>
2. Rubin LH, Du Y, Sweeney SE, O'Toole R, Thomas CL, Zandi AG, Shinehouse LK, Brosnan MK, Nam H, Burke ME, Bureau SC, Kilgore JJ, Yoon M, Soule AR, Lesniak WG, Minn I, Rowe SP, Holt DP, Hall AW, Mathews WB, Smith GS, **Nowinski CJ**, Kassiou M, Dannals RF, Pomper MG, Coughlin JM. [Imaging Brain Injury in Former National Football League Players](#). *JAMA Netw Open*. 2023 Oct 2;6(10):e2340580. doi: 10.1001/jamanetworkopen.2023.40580. PMID: 37902750; PMCID: PMC10616723.
3. McKee AC, Mez J, Abdolmohammadi B, Butler M, Huber BR, Uretsky M, Babcock K, Cherry JD, Alvarez VE, Martin B, Tripodis Y, Palmisano JN, Cormier KA, Kubilus CA, Nicks R, Kirsch D, Mahar I, McHale L, **Nowinski C**, Cantu RC, Stern RA, Daneshvar D, Goldstein LE, Katz DI, Kowall NW, Dwyer B, Stein TD, Alosco ML. [Neuropathologic and Clinical Findings in Young Contact Sport Athletes Exposed to Repetitive Head Impacts](#). *JAMA Neurol*. 2023 Aug 28:e232907. doi: 10.1001/jamaneurol.2023.2907. Epub ahead of print. PMID: 37639244; PMCID: PMC10463175.
4. Bruce HJ, Tripodis Y, McClean M, Korell M, Tanner CM, Contreras B, Gottesman J, Kirsch L, Karim Y, Martin B, Palmisano J, Abdolmohammadi B, Shih LC, Stein TD, Stern RA, Adler CH, Mez J, **Nowinski C**, McKee AC, Alosco ML. [American Football Play and Parkinson Disease Among Men](#). *JAMA Netw Open*. 2023 Aug 1;6(8):e2328644. doi: 10.1001/jamanetworkopen.2023.28644. PMID: 37566412; PMCID: PMC10422187.
5. Daneshvar DH, Nair ES, Baucom ZH, Rasch A, Abdolmohammadi B, Uretsky M, Saltiel N, Shah A, Jarnagin J, Baugh CM, Martin BM, Palmisano JN, Cherry JD, Alvarez VE, Huber BR, Weuve J, **Nowinski CJ**, Cantu RC, Zafonte RD, Dwyer B, Crary JF, Goldstein LE, Kowall NW, Katz DI, Stern RA, Tripodis Y, Stein TD, McClean MD, Alosco ML, McKee AC, Mez J. [Leveraging football accelerometer data to quantify associations between repetitive head impacts and chronic traumatic encephalopathy in males](#). *Nat Commun*. 2023 Jun 20;14(1):3470. doi: 10.1038/s41467-023-39183-0. PMID: 37340004; PMCID: PMC10281995.
6. Alosco ML, Ly M, Mosaheb S, Saltiel N, Uretsky M, Tripodis Y, Martin B, Palmisano J, Delano-Wood L, Bondi MW, Meng G, Xia W, Daley S, Goldstein LE, Katz DI, Dwyer B, Daneshvar DH, **Nowinski C**, Cantu RC, Kowall NW, Stern RA, Alvarez VE, Mez J, Huber BR, McKee AC, Stein TD. [Decreased myelin proteins in brain donors exposed to football-related repetitive head impacts](#). *Brain Commun*. 2023; 5(2):fcad019. PMID: 36895961.
7. **Nowinski CJ**, Bureau SC, Buckland ME, Curtis MA, Daneshvar DH, Faull RLM, Grinberg LT, Hill-Yardin EL, Murray HC, Pearce AJ, Suter CM, White AJ, Finkel AM, Cantu RC. [Applying the Bradford Hill Criteria for Causation to Repetitive Head Impacts and Chronic Traumatic Encephalopathy](#). *Front Neurol*. 2022 Jul 22;13:938163. doi: 10.3389/fneur.2022.938163. PMID: 35937061; PMCID: PMC9355594.
8. Atherton K, Han X, Chung J, Cherry JD, Baucom Z, Saltiel N, Nair E, Abdolmohammadi B, Uretsky M, Khan MM, Shea C, Durape S, Martin BM, Palmisano JN, Farrell K, **Nowinski CJ**, Alvarez VE, Dwyer B, Daneshvar DH, Katz DI, Goldstein LE, Cantu RC,

- Kowall NW, Alosco ML, Huber BR, Tripodis Y, Crary JF, Farrer L, Stern RA, Stein TD, McKee AC, Mez J. [Association of APOE Genotypes and Chronic Traumatic Encephalopathy](#). *JAMA Neurol*. 2022 Jun 27. doi: 10.1001/jamaneurol.2022.1634. Epub ahead of print. PMID: 35759276.
9. LeClair J, Weuve J, Fox MP, Mez J, Alosco ML, **Nowinski C**, McKee A, Tripodis Y. [Selection Bias Analysis Supports Dose-Response Relationship between Level of American Football Play and Chronic Traumatic Encephalopathy Diagnosis](#). *Am J Epidemiol*. 2022 Apr 16. doi: 10.1093/aje/kwac075. Epub ahead of print. PMID: 35434739.
 10. Daneshvar DH, Mez J, Alosco ML, Baucom ZH, Mahar I, Baugh CM, Valle JP, Weuve J, Paganoni S, Cantu RC, Zafonte RD, Stern RA, Stein TD, Tripodis Y, **Nowinski CJ**, McKee AC. [Incidence of and Mortality from Amyotrophic Lateral Sclerosis in National Football League Athletes](#). *JAMA Open*. 2021 Dec; 4(12): e2138801.
 11. Alosco ML, Mian AZ, Buch K, Farris CW, Uretsky M, Tripodis Y, Baucom Z, Martin B, Palmisano J, Puzo C, Ang TFA, Joshi P, Goldstein LE, Au R, Katz DI, Dwyer B, Daneshvar DH, **Nowinski CJ**, Cantu RC, Kowall NW, Huber BR, Alvarez VE, Stern RA, Stein TD, Killiany RJ, McKee AC, Mez J. [Structural MRI profiles and tau correlates of atrophy in autopsy-confirmed CTE](#). *Alzheimers Res Ther*. 2021 Dec 7;13(1):193. doi: 10.1186/s13195-021-00928-y. PMID: 34876229; PMCID: PMC8653514.
 12. Mez J, Alosco ML, Daneshvar DH, Saltiel N, Baucom Z, Abdolmohammadi B, Uretsky M, Nicks R, Martin BM, Palmisano JN, **Nowinski CJ**, Montenegro P, Solomon TM, Mahar I, Cherry JD, Alvarez VE, Dwyer B, Goldstein LE, Katz DI, Cantu RC, Kowall NW, Tripodis Y, Huber BR, Stein TD, Stern RA, McKee AC. Validity of the 2014 traumatic encephalopathy syndrome criteria for CTE pathology. *Alzheimers Dement*. 2021 Apr 07. PMID: 33826224.
 13. Adams, J.W., Alosco, M.L., Mez, J, **Nowinski CJ et al**. Association of probable REM sleep behavior disorder with pathology and years of contact sports play in chronic traumatic encephalopathy. *Acta Neuropathol* (2020). <https://doi.org/10.1007/s00401-020-02206-x>
 14. Uretsky, Madeline and **Nowinski, Christopher**. CTE: Advocacy and Communicating with the Public. *Seminars in Neurology*. In press. 2019 Dec 21.
 15. Mez J, Daneshvar DH, Abdolmohammadi B, Chua AS, Alosco ML, Kiernan PT, Evers L, Marshall L, Martin BM, Palmisano JN, **Nowinski CJ**, Mahar I, Cherry JD, Alvarez VE, Dwyer B, Huber BR, Stein TD, Goldstein LE, Katz DI, Cantu RC, Au R, Kowall NW, Stern RA, McClean MD, Weuve J, Tripodis Y, McKee AC. [Duration of American Football Play and Chronic Traumatic Encephalopathy](#). *Ann Neurol*. 2020 Jan;87(1):116-131. doi: 10.1002/ana.25611. Epub 2019 Nov 23
 16. Cherry JD, Mez J, Crary JF, Tripodis Y, Alvarez VE, Mahar I, Huber BR, Alosco ML, Nicks R, Abdolmohammadi B, Kiernan PT, Evers L, Svirsky S, Babcock K, Gardner HM, Meng G, **Nowinski CJ**, Martin BM, Dwyer B, Kowall NW, Cantu RC, Goldstein LE, Katz DI, Stern RA, Farrer LA, McKee AC, Stein TD. [Variation in TMEM106B in chronic traumatic encephalopathy](#). *Acta Neuropathol Commun*. 2018 Nov 4;6(1):115.
 17. Adams JW, Alvarez VE, Mez J, Huber BR, Tripodis Y, Xia W, Meng G, Kubilus CA, Cormier K, Kiernan PT, Daneshvar DH, Chua AS, Svirsky S, Nicks R, Abdolmohammadi B, Evers L, Solomon TM, Cherry JD, Aytan N, Mahar I, Devine S, Auerbach S, Alosco ML, **Nowinski CJ**, Kowall NW, Goldstein LE, Dwyer B, Katz DI, Cantu RC, Stern RA, Au R, McKee AC, Stein TD. [Lewy Body Pathology and Chronic Traumatic Encephalopathy Associated With Contact Sports](#). *Journal of Neuropathology & Experimental Neurology*. Published online July 25, 2018

18. Alosco ML, Mez J, Tripodis Y, Kiernan PT, Abdolmohammadi B, Murphy L, Kowall NW, Stein TD, Huber BR, Goldstein LE, Cantu RC, Katz DI, Chaisson CE, Martin B, Solomon TM, McClean MD, Daneshvar DH, **Nowinski CJ**, Stern RA and McKee AC. Age of First Exposure to Tackle Football and Chronic Traumatic Encephalopathy. *Ann Neurol*. Published online April 30, 2018. doi:[10.1002/ana.25245](https://doi.org/10.1002/ana.25245)
19. Alosco ML, Kasimis AB, Stamm JM, Chua AS, Baugh CM, Daneshvar DH, Robbins CA, Mariani M, Hayden J, Conneely S, Au R, Torres A, McClean MD, McKee AC, Cantu RC, Mez J, **Nowinski CJ**, Martin BM, Chaisson CE, Tripodis Y, Stern RA. [Age of first exposure to American football and long-term neuropsychiatric and cognitive outcomes](#). *Translational Psychiatry*. 2017; 7(9):e1236.
20. Mez J, Daneshvar DH, Kiernan PT, Abdolmohammadi B, Alvarez VE, Huber BR, Alosco ML, Solomon TM, **Nowinski CJ**, McHale L, Cormier KA, Kubilus CA, Martin BM, Murphy L, Baugh CM, Montenegro PH, Chaisson CE, Tripodis Y, Kowall NW, Weuve J, McClean MD, Cantu RC, Goldstein LE, Katz DI, Stern RA, Stein TD, McKee AC. [Clinicopathological Evaluation of Chronic Traumatic Encephalopathy in Players of American Football](#). *JAMA*. 2017; 318(4):360-370
21. Alosco ML, Jarnagin J, Tripodis Y, Martin B, Chaisson C, Baugh CM, Torres A, **Nowinski CJ**, Cantu RC, Stern RA. Utility of providing a concussion definition in the assessment of concussion history in former NFL players. *Brain Inj*. 2017 May 4:1-8.
22. Coughlin JM, Wang Y, Minn I, Bienko N, Ambinder EB, Xu X, Peters ME, Dougherty JW, Vranesic M, Koo SM, Ahn H, Lee M, Cottrell C, Sair HI, Sawa A, Munro CA, **Nowinski CJ**, Dannals RF, Lyketsos CG, Kassiou M, Smith G, Caffo B, Mori S, Guilarte TR, Pomper MG. Imaging of Glial Cell Activation and White Matter Integrity in Brains of Active and Recently Retired National Football League Players. *JAMA Neurol*. Published online November 28, 2016. doi:10.1001/jamaneurol.2016.3764
23. Alosco ML, Mez J, Kowall NW, Stein TD, Goldstein LE, Cantu RC, Katz DI, Solomon TM, Kiernan PT, Murphy L, Abdolmohammadi B, Daneshvar D, Montenegro PH, **Nowinski CJ**, Stern RA, McKee AC. Cognitive Reserve as a Modifier of Clinical Expression in Chronic Traumatic Encephalopathy: A Preliminary Examination. *J Neuropsychiatry Clin Neurosci*. 2016.
24. Montenegro PH, Alosco ML, Martin BM, Daneshvar DH, Mez J, Chaisson CE, **Nowinski ICJ**, Au, R, McKee AC, Cantu RC, McLean MD, 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. *Journal of Neurotrauma*. 2017; 34(2):328-340.
25. Mez J, Solomon TM, Daneshvar DH, Murphy L, Kiernan PT, Montenegro PH, Kriegel J, Abdolmohammadi B, Fry B, Babcock KJ, Adams JW, Bourlas AP, Papadopoulos Z, McHale L, Ardaugh BM, Martin BR, Dixon D, **Nowinski CJ**, Chaisson C, Alvarez VE, Tripodis Y, Stein TD, Goldstein LE, Katz DI, Kowall NW, Cantu RC, Stern RA, McKee AC. Assessing clinicopathological correlation in chronic traumatic encephalopathy: rationale and methods for the UNITE study. *Alzheimers Res Ther*. 2015 Oct 12;7(1):62
26. Stein, T.D., Montenegro, P.H., Alvarez, V.E., Xia, W., Crary, J.F., Tripodis, Y., Daneshvar, D.H., Mez, J., Solomon, T., Meng, G., Kubilus, C.A., Cormier, K.A., Meng, S., Babcock, K., Kiernan, P., Murphy, L., **Nowinski, C.J.**, Martin, B., Dixon, D., Stern, R.A., Cantu, R.C., Kowall, N.W., McKee, A.C., 2015. Beta-amyloid deposition in chronic traumatic encephalopathy. *Acta Neuropathol* 2015 Jul;130(1):21-34.
27. Lin AP, Ramadan S, Stern RA, Box HC, **Nowinski CJ**, Ross BD, Mountford CE. Changes in the neurochemistry of athletes with repetitive brain trauma: preliminary results using localized correlated spectroscopy. *Alzheimers Res. Ther*. 2015 Mar 15;7(1):13.

28. Kroshus E, Baugh CM, Daneshvar DH, **Nowinski CJ**, Cantu RC. Concussion reporting intention: a valuable metric for predicting reporting behavior and evaluating concussion education. *Clin J Sport Med*. 2015 May;25(3):243-7
29. Robbins CA, Daneshvar DH, Picano JD, Gavett BE, Baugh CM, Riley DO, **Nowinski CJ**, McKee AC, Cantu RC, Stern RA. "Self-Reported Concussion History: Impact of Providing a Definition of Concussion," *Open Access Journal of Sports Medicine*. 5: 99-103. 2014.
30. Stern, R.A., Daneshvar, D.H., Baugh, C.M., Seichepine, D.R., Montenigro, P.H., Riley, D.O., Fritts, N.G., Stamm, J.M., Robbins, C.A., McHale, L., Simkin, I., Stein, T.D., Alvarez, V., Goldstein, L.E., Budson, A.E., Kowall, N.W., **Nowinski, C.J.**, Cantu, R.C., & McKee, A.C. Clinical presentation of Chronic Traumatic Encephalopathy. *Neurology*. 2013 August 21; 81: 1122-1129.
31. Kroshus E, Daneshvar DH, Baugh CM, **Nowinski CJ**, Cantu RC. NCAA concussion education in ice hockey: an ineffective mandate. *BJSM*. 2013 Aug 20. E-publication.
32. Seichepine DR, Stamm JM, Daneshvar DH, Riley DO, Baugh CM, Gavett BE, Tripodis Y, Martin B, Chaisson C, McKee AC, Cantu RC, **Nowinski CJ**, Stern RA. Profile of self-reported problems with executive functioning in college and professional football players. *J Neurotrauma*. 2013 Jul 15; 30(14):1299-304.
33. McKee AC, Stern RA, **Nowinski CJ**, Stein TD, Daneshvar DH, Alvarez VE, Lee HS, Hall GF, Wojtowicz SM, Baugh CM, Riley DO, Kubilus CA, Cormier KA, Jacobs MA, Martin BR, Abraham CR, Ikezu T, Reichard RR, Wolozin BL, Budson AE, Goldstein LE, Kowall NW, Cantu RC. The Spectrum of Disease in Chronic Traumatic Encephalopathy. *Brain*, 2013; 136(Pt 1): 43-64.
34. Bagley AF, Daneshvar DH, Schanker BD, Zurakowski D, d'Hemecourt CA, **Nowinski CJ**, Cantu RC, Goulet K. Effectiveness of the SLICE program for concussion education. *Clin J Sport Med*. 2012 Sep;22(5):385-9.
35. Goldstein LE, Fisher AM, Tagge CA, Zhang XL, Velisek L, Sullivan JA, Upreti C, Kracht JM, Ericsson M, Wojnarowicz MW, Goletiani CJ, Maglakelidze GM, Casey N, Moncaster JA, Minaeva O, Moir RD, **Nowinski CJ**, Stern RA, Cantu RC, Geiling J, Blusztajn JK, Wolozin BL, Ikezu T, Stein TD, Budson AE, Kowall NW, Chargin D, Sharon A, Saman S, Hall GF, Moss WC, Cleveland RO, Tanzi RE, Stanton PK, McKee AC. Chronic traumatic encephalopathy in blast-exposed military veterans and a blast neurotrauma mouse model. *Sci Transl Med*. 2012 May 16;4(134):134ra60.
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37. Gavett BE, Cantu RC, Shenton M, Lin AP, **Nowinski CJ**, McKee AC, Stern RA. [Clinical appraisal of chronic traumatic encephalopathy: current perspectives and future directions](#). *Current Opinion in Neurology*. 2011 Dec;24(6):525-531.
38. Stern RA, Riley DO, Daneshvar DH, **Nowinski CJ**, Cantu RC, McKee AC. Long-term Consequences of Repetitive Brain Trauma: Chronic Traumatic Encephalopathy. *Phys Med Rehabil Clin N Am*, 3, S460-S467, October 2011.
39. Daneshvar DH, Riley DO, **Nowinski CJ**, McKee AC, Stern RA, Cantu RC. Long-Term Consequences: Effects on Normal Development Profile After Concussion. *Phys Med Rehabil Clin N Am*, 22, 603-670, October 2011.
40. Stern RA, Gavett BE, Baugh CM, **Nowinski CJ**, Cantu RC, McKee AC. Recurrent sports-related traumatic brain injury and tauopathy. Edited by M. Oria and J. Erdman. Washington, DC: The National Academies Press. 2011

41. Daneshvar DH, **Nowinski CJ**, McKee AC, Cantu RC. The epidemiology of sport-related concussion. *Clin Sports Med.* 2011 Jan;30(1):1-17.
42. Daneshvar DH, Baugh CM, **Nowinski CJ**, McKee AC, Stern RA, Cantu RC. Helmets and mouth guards: the role of personal equipment in preventing sport-related concussions. *Clin Sports Med.* 2011 Jan;30(1):145-63.
43. McKee A, Gavett B, Stern R, **Nowinski CJ**, Cantu R, Kowall N, Perl D, Hedley-Whyte E, Price B, Sullivan C, Morin P, Lee H-S, Kubilus C, Danshevar D, Wulff M, Budson A. TDP-43 Proteinopathy and Motor Neuron Disease in Chronic Traumatic Encephalopathy, *J Neuropath Exp Neurol*, 2010 Sep;69(9):918-29.
44. Gavett, B, Stern R, Cantu R, **Nowinski CJ**, McKee A. Mild traumatic brain injury: A risk factor for neurodegeneration, *Alzheimer's Research and Therapy*, 2010, 2:18 (June 25, 2010).
45. McKee AC, Cantu RC, **Nowinski CJ**, Hedley-Whyte ET, Gavett BE, Budson AE, Santini VE, Lee H-Y, Kubilus CA, Stern RA. Chronic Traumatic Encephalopathy in Athletes: Progressive Tauopathy following Repetitive Head Injury. *J Neuropath Exp Neurol*, 2009; 68(7): 709-735.

Invited Editorials:

1. Nowinski, Christopher J. and Robert C. Cantu. Who Will Protect the Brains of College Football Players? *JAMA Neurology*, 2021 Feb 01. PMID: 33523092.

Books:

1. *Head Games: The Global Concussion Crisis, 3rd Edition.* Head Games the Film, LLC, 2014.
2. *Head Games, 2nd Edition.* Head Games the Film, LLC, 2012.
3. *Head Games: Football's Concussion Crisis;* Drummond Publishing Group, 2006.

Book Chapters:

1. Chronic Traumatic Encephalopathy: Proceedings of the Boston University Alzheimer's Disease Center Conference. Chapter 13: Athlete Panel Discussion. Pages 169-175. Elsevier, 2018.

Abstracts:

1. Goldstein, L., Minaeva, O., Fisher, A.M., Tagge, C.A., Moncaster, J.A., Gaudreau-Balderrama, A., Zhang, X., Wojnarowicz, M.W., Babcock, K.J., Franz, E.S., Chancellor, S.E., Pietro, J.H., O'Brien, J.W., Liu, X., Casey, N.F., Lupoli, N., Lu, H., Kokiko-Cochran, O., Saman, S., Kondo, A., Zhou, X., Miry, O., Vose, L.R., Ericsson, M., Onos, K., Veksler, R., Senatorov, V., Gopaul, K., Upreti, C., Nowinski, C., Cantu, R., Alvarez, V.E., Hua, N., Tripodis, Y., Anderson, A., Howell, G., Kaufer, D., Hall, G.F., Lu, K.P., Ransohoff, R., Cleveland, R.O., Kowall, N.W., Huber, B.R., Stein, T.D., Lamb, B.T., Moss, W.C., Friedman, A., Stanton, P.K. and McKee, A.C. (2019), P2-206: [Contribution of Focal Microvascular Disruption to Neuroinflammation and Tau Pathology in a Mouse Model of Impact Concussion and Chronic Traumatic Encephalopathy.](#) *Alzheimer's & Dementia*, 15: P655-P656. <https://doi.org/10.1016/j.jalz.2019.06.2613>
2. Kiernan PT, Abdolmohammadi BA, Goldstein LE, Huber BR, Alvarez VA, Stein TD, Alosco ML, Mez J, Nowinski C, Gardner H, Mahar I, Cherry JD, Nicks R, Svirsky S, Hildebrandt A, Kwasnik D, Kubilus C, Cormier K, Mathias R, Evers L, Kowall NW, Katz D, Dwyer B, Stern RA, McKee AC. Clinicopathological Evaluation of 15 OEF/OIF

Veterans Exposed to Blast and Impact Traumatic Brain Injury: A CENC and VA-BU-CLF Case Series. 2018 Military Health System Research Symposium.

3. Clinicopathological Findings in 8 Young Ice Hockey Players. McKee et al. 93rd Annual Meeting of the American Association of Neuropathologists. *Journal of Neuropathology and Experimental Neurology*. Vol. 76, No. 6, June 2017, p. 523.
4. Mian M, Alosco M, Mez J, Kiernan P, Daneshvar D, Nowinski C, Kowall Neil, Stern R, Katz D, Cantu R, McKee A. [The Clinical and Neuropathological Correlates of Second-Impact Syndrome: Case Report of a 17-year-old Female Rugby Player](#). *Neurology* Apr 2017, 88 (16 Supplement) P6.164.
5. Gavett BE, Stern RA, Nowinski CJ, Cantu RC, McKee AC. [Clinical and Neuropathologic Findings in Chronic Traumatic Encephalopathy: A Case Series](#). *Archives of Clinical Neuropsychology*. 2009 August;24(5):525.
6. McKee AC, Stern RA, Nowinski CJ, Gavett BE, Cantu RC, [Chronic traumatic encephalopathy in professional football players](#). *Journal of Neuropathology and Experimental Neurology*. 2009 68 (5), 560-560.

Poster Presentations:

1. Shankar R*, Culhane J*, Iaccarino L, **Nowinski CJ**, Mundada N, Smith K, Tanner J, Windon C, Tripodis Y, Mercier G, Stein TD, Grinberg L, McKee AC, Stern RA, Kowall N, Miller B, Mez J, Killiany R, Rabinovici G, Alosco M**, Asken B**. Neuroimaging Evidence of Neurodegenerative Disease in Former Professional American Football Players Who “Fail” Validity Testing: A Case Series. 2023. International Neuropsychological Society.
2. Rodriguez RD, **Nowinski CJ**, Suemoto CK, Leite RP, Jacob-Filho W, Pasquallucci CA, Nitrini R, Grinberg LT. Clinicopathological study of chronic Traumatic Encephalopathy pathology in a population-based cohort. *Tau* 2022.
3. Rodriguez RD, Suemoto CK, Brucki SMD, Leite REP, Nowinski C, Ferretti-Rebustini REL, Jacob-Filho W, Pasquallucci CA, Grinberg LT, Nitrini R. Multiples pathologies in an amateur soccer player with severe chronic traumatic encephalopathy. *Alzheimer’s Association International Conference* 2020.
4. The Clinical and Neuropathological Correlates of Second-Impact Syndrome: Case Report of a 17-year-old Female Rugby Player. *American Academy of Neurology 69th Annual Meeting*. April 2017, Boston, MA.
5. McKee AM, Kiernan P, Nowinski CJ, Stein T et al. Clinicopathological Findings in 100 Former NFL Players. *Journal of Neurotrauma*, At the 33rd Annual National Neurotrauma Symposium June 28–July 1, 2015 Santa Fe, New Mexico, Volume: 32.
6. Goldstein L, Fisher A, Tagge C, Minaeva O, Zhang X, Wojnarowicz M, Gaudreau A, Moncaster J, Casey N, Saman S, Stein T, Nowinski C, Tanzi R, Kowall, N, Cantu R, Hall G, Moss W, Stanton P, McKee A. (2015). Mechanistic pathobiology of acute concussion, traumatic brain injury, and chronic traumatic encephalopathy in mouse models of blast neurotrauma and impact concussion. *Alzheimer's & Dementia*. 11. P494. 10.1016/j.jalz.2015.06.570.
7. Lin AP, Ramadan S, Stern RA, Box HN, Stanwell P, McKee AC, Cantu RC, Nowinski CJ, Mountford CE. *In vivo* L-COSY Identifies Neurochemical Changes in Professional Athletes with Repetitive Head Injuries. *Proc. Intl. Soc. Mag. Reson. Med*. 19 (2011).

2212.

8. Montenigro P, Cove CL, Crowell M, Nowinski C, Cantu R, Stern R. [A Subconcussive Load Effect & Trauma Profile for Chronic Traumatic Encephalopathy: A Meta-analysis of New Trends](#). 2009

Lay Publications:

1. [Is Youth Football Too Dangerous?](#) *The New York Times Upfront Magazine*. February 2023.
2. [Football Is Deadly, but Not for the Reasons You Think](#). *The New York Times*. January 9, 2023.
3. [We Don't Have to Get Rid of College Football to Make it Brain Safe\(r\)](#). *Global Sports Matters*. March 9, 2022.
4. The Big Idea: [Kids Should Not Be Allowed to Play Tackle Football](#). *Vox*. April 3, 2019.
5. [Point After: Troubling Trend](#). *Sports Illustrated*. July 17, 2018.
6. [It's Time to Ban Youth Tackle Football](#). *HuffPost*. February 2, 2018.
7. [Football's Dangers and Lessons Are for Men—Not Boys](#). *TIME*. September 19, 2014.
8. [Hit Parade: The Future of the Sports Concussion Crisis](#). *Cerebrum*. February 1, 2013.
9. Special Report on Sports Related Brain Injuries. *Britannica Book of the Year*. 2011.
10. The Concussion Crisis in Hockey. *The Hockey News*. November 2006.
11. Leak had symptoms of concussion: QB's injury was more serious than just a headache. *SI.com*. November 1, 2006.
12. Headed for trouble? With a history of concussions, LB Dan Morgan faces a life-altering decision whether to return to NFL. *SI.com*. October 13, 2006.

Feature Documentaries:

1. *Head Games the Film*. 2012. Directed by Steve James. Based on *Head Games: Football's Concussion Crisis* (Nowinski 2006).
2. *Head Games: The Global Concussion Crisis*. 2014. Directed by Steve James. Based on *Head Games: Football's Concussion Crisis* (Nowinski 2006).
3. *League of Denial*. 2013. PBS Frontline.
4. *30 for 30: Seau*. 2018. ESPN.

Short Documentaries & Features:

1. *My Life with CTE: Warren Sapp*. 2022.
2. [How CTE Changes Everything About Football](#). 2019. LA Times.
3. [The NHL's Denial of CTE](#). 2018. HBO Real Sports.
4. [The Dangers of Youth Football](#). 2017. HBO Real Sports.
5. [Soccer Heading](#). 2015. HBO Real Sports.
6. [Domestic Violence and CTE](#). 2014. HBO Real Sports.
7. [Contact Sports and ALS](#). 2010. HBO Real Sports.
8. *Head Games 2*. 2010. HBO Real Sports.
9. [Head Games](#). 2007. HBO Real Sports.

TED Talks:

1. [Can I have your brain? The quest for truth on concussions and CTE](#). May 19, 2018. Filmed at TEDxBeaconStreet. (1.1M views)

2. [Disrupting Concussion Education: Team Up Speak Up](#). October 21, 2018. Filmed at TEDxBeaconStreet.
3. [Why we need to change the age limit for contact sports](#). August 15, 2022. Filmed at TEDxBoston.

Educational Videos:

1. Medscape. [Concussion: Identifying Gaps, Dispelling Myths and Misperceptions](#) CME. Robert C. Cantu, MD; Christopher J. Nowinski; Anthony G. Alessi, MD. October 8, 2013.
2. Robbins C, Cantu RC, Nowinski CJ. [What happens when you have a concussion?](#) TED-Ed. 2015. (2M views)

Public Service Announcements:

1. [Tackle Can Wait](#). Executive Producer. 2019.
2. [A Warning from the Future](#). Executive Producer, Writer. 2021.

Voiceover:

1. US Centers for Disease Control. Heads Up: Concussion Training for Youth Coaches. 2019, 2015, 2011.
2. US Centers for Disease Control. Heads Up to Parents: Get a Heads Up on Helmets. 2013.
3. US Centers for Disease Control. Heads Up to Parents: Get a Heads Up on Helmets. 2018.

Applications:

1. Concussion Smart. Acquired Brain Injury Ireland. 2019.

Personal Awards:

1. Imagination Award. PM360 Trailblazer Awards, 2020
2. Ernst Jokl Sports Medicine Award, United States Sports Academy, 2019
3. Industry Difference-Makers, Athletic Business, 2018
4. 40 under 40, Boston Business Journal, 2017
5. Dr. Alan Ashare Safety Award, Massachusetts Hockey, 2016
6. Impact Award, HealthSpottr, 2016
7. Renegade Award, Wise Up Foundation, 2014
8. Distinguished Service Award, United States Sports Academy, 2012
9. Sport at its Best Award. Ralph Nader's League of Fans: Player Safety Advocate, 2012
10. Conquering Concussions Hero Award, CACTIS Foundation, 2012
11. President's Medallion Award. Western New England College. 2011
12. HealthLeaders 20 - People Who Make Healthcare Better, HealthLeaders Media, 2011
13. Zach Lystedt Angel Award, Sarah Jane Brain Foundation, 2011
14. *Hockey News* 40 Under 40 Most Powerful People in Hockey, 2011
15. *Sports Illustrated* Sportsman of the Year Finalist, 2010
16. James Brady Award, Brain Injury Association of Illinois, 2010
17. CoBI Award, Council on Brain Injury, 2008
18. PETA Compassionate Action Award, 2008
19. WWE Newcomer of the Year, WWE RAW Magazine, 2002
20. Football All-Ivy League, Harvard University, 1999

Concussion Legacy Foundation Awards:

1. Advancement of Sciences Award, Neuro-Optometric Rehabilitation Association, 2019
2. ETHOS Award, Santa Clara University Institute for Sports, Law, & Ethics, 2014

Congressional Testimony:

1. Forum: [Traumatic Brain Injuries in Sports](#). House Democratic Members of the Energy and Commerce and Judiciary Committees. October 13, 2017.
2. Hearing on State of Play: Brain Injuries and Diseases of Aging. Senate Committee on Aging. Chairman Bill Nelson. Washington, D.C. June 25, 2014
3. Sports Concussion Roundtable. House of Commons. Parliament. London, England. March 4, 2014.
4. Legal Issues Relating to Football Head Injuries, Part II. House Committee on the Judiciary. Chairman John Conyers. Detroit, MI. January 4, 2010
5. Legal Issues Relating to Football Head Injuries. House Committee on the Judiciary. Chairman John Conyers. Washington D.C. October 28, 2009

State and Local Testimony:

1. Hearing on New York State Assembly Bill A1269C: The John Mackey Football Protection Act. New York, NY. October 22, 2019.
2. Hearing on Commonwealth of Massachusetts HB1021: No Organized Head Impacts for Schoolchildren (N.O. H.I.T.S.). October 15, 2019.
3. Hearing on the HB4341: Dave Duerson Act. Illinois House of Representatives. March 1, 2018.
4. Hearing on the College Athletes Bill of Rights, Boston City Council. July 8, 2014.
5. Hearing on Boston Concussion Ordinance. Boston City Council. Chairman Steve Murphy. 2012.
6. Hearing on Sports Concussion Ordinance. Chicago City Council. Chairman Ed Burke. January 15, 2011.

NIH Workshops

1. Lecture: “Current State of CTE Brain Banking and Donation/Acquisition.” The Neuropathological Diagnosis of Chronic Traumatic Encephalopathy (CTE): Next Steps Workshop. National Institutes of Neurological Disorders & Stroke. Bethesda, MD. Nov 6-7, 2019.
2. Invited Participant. NIH Workshop on Pediatric Concussion. National Institutes of Neurological Disorders & Stroke. Bethesda, MD. October 13-14, 2016.
3. Invited Participant. NIH Workshop on the Neuropathology of Chronic Traumatic Encephalopathy. National Institutes of Neurological Disorders & Stroke. Bethesda, MD. Dec 5-6, 2012.

Consulting

1. MC10. 2011-2013.

Advisor

1. Oxeia Biopharmaceuticals Inc. 2016-
2. Sports Innovation Labs. 2018-
3. StataDX 2022-
4. Aurora CTS. 2021-22
5. PreCon Health 2021-2022

Presentations and Panels:

1. Professional Athlete’s Experience with Sports Concussion. 2004 Sports Related Conference on Concussion and Spine Injury. The Neurological Sports Injury Center

- at Brigham and Women's Hospital and Harvard Medical School. Boston, MA. March 14, 2004
2. Conquering Concussions. The Fessenden School. Newton, MA. April 18, 2005
 3. Conquering Concussions. Swampscott High School. Swampscott, MA. September 22, 2005
 4. The Epidemiology of Concussions in Athletes. 2006 Sports-Related Conference on Concussion and Spine Injury. The Neurological Sports Injury Center at Brigham and Women's Hospital and Harvard Medical School. Boston, MA. May 19, 2006
 5. Keynote Address - Head Games: Football's Concussion Crisis. Brain Injury Association of Massachusetts Conference on Youth Sports Concussion. Marlborough, MA. October 24, 2006
 6. Conquering Concussions. St. Mary's High School. Lancaster, NY. February 12, 2007
 7. The Epidemiology of Concussion in Athletes - Lessons for a New Approach. Third International Meeting on Minor Traumatic Brain Injury in Sports. St. Moritz, Switzerland. March 15, 2007
 8. The NFL's Concussion Research: Fact, Fantasy, or Fabrication? Third International Meeting on Minor Traumatic Brain Injury in Sports. St. Moritz, Switzerland. March 15, 2007
 9. Head Games: Football's Concussion Crisis. Tatnuck Booksellers. Westborough, MA. April 14, 2007
 10. The Culture of Competition: Implications for Concussion Management. Concussion in Sports: The Under-Recognized Public Epidemic. The National Concussion Summit sponsored by the Sports Concussion Institute. Marina del Rey, CA. April 20, 2007
 11. The NFL's Concussion Research: Fact, Fantasy, or Fabrication? 2007 Sports-Related Conference on Concussion and Spine Injury. The Neurological Sports Injury Center at Brigham and Women's Hospital and Harvard Medical School. Boston, MA. April 27, 2007
 12. Head Games: Football's Concussion Crisis. New Hampshire Athletic Directors Association Annual Conference. North Conway, NH. May 24, 2007
 13. The NFL's Concussion Research: Fact, Fantasy, or Fabrication? American College of Sports Medicine 54th Annual Meeting. New Orleans, LA. June 2, 2007
 14. Conquering Concussions. Brookline High School. Brookline, MA. June 7, 2007
 15. Head Games: Football's Concussion Crisis. Westport Police Athletic League. Westport, CT. June 12, 2007
 16. The Sports Concussion Crisis. Workers' Compensation Research Institute Annual Conference. Boston, MA. October 25, 2007
 17. Head Games: Football's Concussion Crisis. Independent School Health Association Fall Conference - Concussion & Sudden Death: Coping with Two Crises. New Canaan, CT. October 26, 2007
 18. Conquering Concussions. Needham High School. Needham, MA. November 13, 2007
 19. Conquering Concussions. Sponsored by the Northeast Rehabilitation Health Network. Merrimack College. North Andover, MA. November 15, 2007
 20. Conquering Concussions. Apple Therapy. Bedford, NH. March 25, 2008
 21. Conquering Concussions. Alzheimer's Association of WA. Seattle, WA. April 4, 2008
 22. Conquering Concussions. New Hampshire Brain Injury Association. Manchester, NH. May 21, 2008
 23. Featured Speaker - The Sports Concussion Crisis. 9th Annual University of California Neurotrauma Symposium. Carmel, CA. June 23, 2008

24. Coaches Concussion Clinic. New Hampshire Pop Warner. Hooksett, NH. June 25, 2008
25. Head Games. Rhode Island and Southeast Massachusetts Pop Warner and Spirit League. Seekonk, MA. July 26, 2008
26. Coaches Concussion Clinic. Westport PAL. Westport, CT. August 18, 2008
27. Conquering Concussions. Wilmington High School. Wilmington, MA. September 9, 2008
28. Head Games. Council on Brain Injury. Philadelphia, PA. September 22, 2008
29. The Sports Concussion Crisis. St. Joseph's University. Philadelphia, PA. September 23, 2008
30. Cocktails and Conversation. Brain Injury Association of America. Las Vegas, NV. November 10, 2008
31. Coaches Concussion Clinic. Ashland High School. Ashland, MA. January 12, 2009
32. Head Games. Massachusetts Interscholastic Athletic Association. Franklin, MA. February 9, 2009
33. Concussions and the Athlete. Mike Boyle's Strength and Conditioning Winter Seminar. Winchester, MA. February 14, 2009
34. Coaches Concussion Clinic. Dimond High School. Fall River, MA. February 15, 2009
35. Head Games. Belmont Hill School. Belmont, MA. March 2, 2009
36. What Parents Need to Know About Concussion. Belmont Hill School. Belmont, MA. March 9, 2009
37. Coaches Concussion Clinic. Westport Police Athletic League. Westport, CT. March 14, 2009
38. Head Games. American Tung Soo Doo Association. Woburn, MA. March 21, 2009
39. Mild Traumatic Brain Injuries: From the Football Field to the Battlefield. Congressional Brain Injury Task Force. Brain Injury Awareness Day. Washington, DC. March 25, 2009
40. CTE in Professional Wrestling. Booker T's Legends of Wrestling Fanfest. Houston, TX. April 3, 2009
41. Head Games. Keeping Cape Cod Alive: Automobile and Youth Safety Summit. Yarmouth, MA. April 7, 2009
42. Head Games. Sports Law: Representing the Professional Athlete. Professor Peter Carfagna. Harvard Law School. Cambridge, MA. April 9, 2009
43. Head Games. National Council of Self-Insurers. Palm Springs, CA. May 18, 2009
44. Brain Trauma in Football. Independent Retired NFL Players Summit. Las Vegas, NV. May 29, 2009
45. Head Games. Brookfield High School. Brookfield, CT. June 3, 2009
46. Coaches Concussion Clinic. Children's Home. Endicott, NY. June 25, 2009
47. Coaches Concussion Clinic. Westport Police Athletic League. Westport, CT. July 18, 2009
48. Coaches Concussion Clinic. Westport Police Athletic League. Westport, CT. August 23, 2009
49. Conquering Concussions. John Hersey High School. Arlington Heights, IL. August 26, 2009
50. Conquering Concussions. Brookfield High School. Brookfield, CT. September 22, 2009
51. Keynote: Athlete's Experience with Concussion. Boston University School of Medicine: Concussion and the Athlete. Foxboro, MA. October 2, 2009

52. Athlete's Experience with Concussion, American Association of Professional Ringside Physicians. Uncasville, CT. October 16, 2009
53. Keynote – Moss Rehabilitation Research Institute Conference. November 7, 2009
54. Concussion Clinic. Massachusetts Association of School Committees Conference. Hyannis, MA. November 20, 2009
55. Concussion Clinic. Wayland Middle School. Wayland, MA. December 7, 2009
56. The Sports Concussion Crisis. Sports Law: Representing the Professional Athlete. Professor Peter Carfagna. Harvard Law School. Cambridge, MA. January 13, 2010
57. Latest Research on Sports Concussions. Eastern Athletic Trainers Association Annual Conference. Boston, MA. January 10, 2010
58. Coaches Concussion Clinic. Westport Police Athletic League. Westport, CT. January 16, 2010
59. CTE in Athletes. Boston University Alumni Weekend. Boston University, Boston, MA. January 23, 2010
60. The Concussion Crisis. Nichols College. Dudley, MA. January 24, 2010
61. The Concussion Crisis. University of Utah/RMCOEH. Salt Lake City, UT. January 28, 2010
62. The Sports Concussion Crisis. Suffolk University - Leadership in Sports. Boston, MA. February 12, 2010
63. Athlete's Experience with Concussion. American Physical Therapy Association. San Diego, CA. February 18, 2010
64. Coaches Concussion Clinic. Big New England Football Clinic. Newport, RI. March 6, 2010
65. Concussions in Sports. Massachusetts Interscholastic Athletic Association. Franklin, MA. April 5, 2010
66. CTE in Retired NFL Players. Independent Retired NFL Players Summit II. Las Vegas, NV. April 16, 2010
67. CTE and Concussions in Hockey. American Hockey Coaches Association. Naples, FL. April 30, 2010
68. Concussion Clinic. Mid-State Sharks Youth Hockey. Worcester, MA. May 11, 2010.
69. Concussion Clinic. John Hersey High School. Arlington Heights, IL. June 15, 2010.
70. Concussion Clinic. Endicott High School. Endicott, NY. June 24, 2010.
71. Concussion Clinic. Fairfield County Police Athletic League. Westport, CT. June 26, 2010.
72. Concussion Clinic. New Hampshire Pop Warner. Hooksett, NH. June 28, 2010.
73. Concussion Clinic. Winchendon Pop Warner. Winchendon, MA. June 30, 2010.
74. Brain Trauma in Sports. Virginia Department of Public Health. Richmond, VA. July 21, 2010.
75. Solving the Concussion Crisis. Baylor Medical Center Sports Medicine Symposium. Frisco, TX. August 8, 2010.
76. Solving the Concussion Crisis. Rhode Island Interscholastic League. Providence, RI. August 11, 2010.
77. Concussion Clinic. Maryville Institute and Country Day School. St. Louis, MO. August 12, 2010.
78. Solving the Concussion Crisis. Montana Tech. Butte, MT. August 23, 2010.
79. Concussion Clinic. Fairfield County Police Athletic League. Westport, CT. August 30, 2010.
80. Concussion Clinic. Groton-Dunstable High School. Groton, MA. September 7, 2010.
81. Concussions in Hockey. Excelon – Discharge & Beyond. Toronto, ON, CA. September 11, 2010.

82. New Recommendations to Improve the Safety of Football. Boston University School of Medicine – Head Trauma & the Athlete. Waltham, MA. October 1, 2010.
83. Concussion Clinic. Lincoln-Sudbury High School. Lincoln, MA. October 13, 2010.
84. Brain Trauma & Law. Harvard Law School. Cambridge, MA. October 21, 2010.
85. Keynote. Brain Injury Association Illinois. Educational Conference. October 23, 2010.
86. Solving the Sports Concussion Crisis. University of Pennsylvania Center for Brain Injury and Repair. October 25, 2010.
87. Concussion Clinic. St. Mary's Hospital. Amsterdam, NY. November 1, 2010.
88. The Sports Concussion Crisis. St. Joseph's University. Philadelphia, PA. November 8, 2010.
89. Solving the Sports Concussion Crisis. Pacific Northwest Brain Injury Conference. Vancouver, BC, CA. November 18, 2010.
90. Solving the Concussion Crisis. Conway MacKenzie Firm Retreat. Detroit, MI. December 3, 2010.
91. Solving the Sports Concussion Crisis. St. Vincent Hospital. Worcester, MA. December 9, 2010.
92. Solving the Concussion Crisis. Maryville Country Day School. St. Louis, MO. January 18, 2011.
93. Concussion Clinic. Suffolk Y Jewish Community Center. Commack, NY. January 30, 2011.
94. Advanced Concussion Training. University of Texas at Arlington. Arlington, TX. February 4, 2011.
95. Solving the Concussion Crisis. Western New England College. Springfield, MA. February 22, 2011.
96. Sports Injury Panel. MIT Sports Analytics Conference. Boston, MA. March 4, 2011.
97. Solving the Sports Concussion Crisis. Baystate Medical Center Department of Surgery. Springfield, MA. March 10, 2011.
98. Keynote - Solving the Sports Concussion Crisis. Brain Injury Association of Connecticut. Hartford, CT. March 11, 2011.
99. Keynote - Solving the Sports Concussion Crisis. Brain Injury Association of Virginia: Opening Doors – Communities, Partnerships, Opportunities. Richmond, VA. March 12, 2011.
100. Advanced Concussion Training. Westport Police Athletic League. March 20, 2011.
101. Solving the Concussion Crisis. St. Francis Medical Center. Cape Giraudoux, MO. March 24, 2011.
102. Concussions in Collegiate Athletics Panel. Harvard Law School Sports Law Symposium. Cambridge, MA. March 25, 2011.
103. Sports Concussion Panel. The Fordham Sports Law Forum. New York City, NY. April 1, 2011.
104. Advanced Concussion Training. Caritas Health Care. Roanoke, VA. April 4, 2011.
105. Concussions and Your Athlete. North Shore Harvard Club. Swampscott, MA. April 26, 2011.
106. Advanced Concussion Training. Swampscott High School. Swampscott, MA. April 26, 2011.
107. Solving the Concussion Crisis. University of Tennessee – Memphis. Memphis, TN. April 28, 2011.
108. Advanced Concussion Training. USA Football Coach Conference at Gillette Stadium. Foxboro, MA. May 7, 2011.
109. Advanced Concussion Training. Bowdoin College, Maine. May 13, 2011.

110. Advanced Concussion Training. Calgary Bulldogs Youth Football. Calgary, AB, Canada. May 15, 2011.
111. Advanced Concussion Training. Middlesex High School. Middlesex, MA. May 17, 2011.
112. Concussion and the Athlete. Trinity College American Football Team. May 29, 2011.
113. The Worldwide Concussion Crisis. Trinity College American Football Coaches. Dublin, Ireland. May 31, 2011
114. The Worldwide Concussion Crisis. Zentrum für Klinische Neuropsychologie Experts Meeting. Würzburg, Germany. June 6, 2011.
115. The Worldwide Concussion Crisis. Italian Olympic Federation. Carlo Tranquilli. Rome, Italy. June 22, 2011.
116. Solving the Concussion Crisis. Brain Injury Association of Pennsylvania. Lancaster, PA. June 26, 2011.
117. Advanced Concussion Training. Chicago Public Schools. June 28, 2011.
118. Brain Trauma and Dementia. Alzheimer's Association of Houston. June 29, 2011.
119. Advanced Concussion Training. Winchester Pop Warner. Winchester, MA. July 26, 2011.
120. Advanced Concussion Training. Virginia Department of Public Health. Harrisonburg, VA. July 27, 2011.
121. Advanced Concussion Training. Virginia Department of Public Health. Lynchburg, VA. July 27, 2011
122. Concussions for Clinicians. Memorial SportsCare. Springfield, IL. August 5, 2011.
123. Advanced Concussion Training. Virginia Department of Public Health. Norfolk, VA. August 6, 2011.
124. Advanced Concussion Training. Virginia Department of Public Health. Falls Church, VA. August 8, 2011.
125. Advanced Concussion Training. Virginia Department of Public Health. Richmond, VA. August 9, 2011.
126. Advanced Concussion Training. Tampa Prep. Tampa, FL. August 16, 2011.
127. CTE in Athletes. Chicago Retired Players Chapter. Chicago, IL. August 23, 2011.
128. Advanced Concussion Training. Chicago Public Schools/Chicago Concussion Coalition. August 31, 2011
129. Advanced Concussion Training. Chicago Public Schools/Chicago Concussion Coalition. September 1, 2011
130. Advanced Concussion Training. D1/Kevin Turner Foundation. Birmingham, AL. September 8, 2011
131. Advanced Concussion Training. Loyola High School. Missoula, MT. September 14, 2011.
132. Advanced Concussion Training. Montana Technical College. Butte, MT, September 15, 2011.
133. Concussions for Athletes. Bates College. September 21, 2011.
134. Advanced Concussion Training. Bates College. September 22, 2011
135. Concussion and the Athlete. Williams College. September 22, 2011.
136. Advanced Concussion Training. Chicago Public Schools/Chicago Concussion Coalition. September 23, 2011 (2 sessions).
137. Advanced Concussion Training. Boston Public Schools/Boston Scholar Athletes. September 26, 2011.
138. Concussion for Clinicians. Hampden Medical Society. September 27, 2011.
139. The Concussion Crisis. The Beacon Society. Boston, MA. October 1, 2011.

140. Solving the Concussion Crisis. St. Vincent's Hospital Community Outreach. Worcester, MA. October 13, 2011
141. We Have Come So Far, but Have So Far to Go: Public Awareness and Policy Change in Sports-Related Brain Trauma. Boston University School of Medicine: Brain Trauma and the Athlete. Framingham, MA. October 28, 2011
142. Keynote – Solving the Sports Concussion Crisis. Braintree Rehabilitation Conference. November 13, 2011
143. Concussions in Sports: Care, Conflict, Controversy. New York University Langone Medical Center. November 16, 2011.
144. Advanced Concussion Training. Chicago Concussion Coalition. Chicago, IL. November 19, 2011.
145. Solving the Concussion Crisis. Boston University Photonics 15TH Annual Boston University Photonics Center “Future of Light” Symposium. December 1, 2011
146. Concussions for Clinicians. Boston Medical Center Pediatric Grand Rounds. December 8, 2011.
147. Solving the Sports Concussion Crisis. Casa la Ciudad de Mexico City. Mexico City, MX. December 15, 2011.
148. Solving the Sports Concussion Crisis. VA Department of Health. Richmond, VA. January 14, 2012.
149. Conquering Concussions. Nichols College. January 22, 2012.
150. Advanced Concussion Training. Chicago Public Schools. January 27, 2012.
151. Advanced Concussion Training. Chicago Public Schools. January 28, 2012.
152. Concussions in Soccer. US Youth Soccer Workshop. Boston, MA. February 17, 2012.
153. Advancing Concussion Training. Detroit, MI. February 18, 2012.
154. Keynote - Solving the Sports Concussion Conference. Santa Clara Brain Injury Conference. February 24, 2012.
155. Concussions for Clinicians. CME Conference. Philadelphia, PA. March 2, 2012.
156. Solving the Sports Concussion Crisis. PHI Air Medical Northeast. Shenandoah University, Shenandoah, VA. March 3, 2012.
157. How Technology Will Make Sports Safer for the Brain. MIT Sports Analytics Conference. Boston, MA. March 3, 2012.
158. Solving the Concussion Crisis. BrainSTEPS 3rd Annual Brain Injury Awareness Symposium. March 9, 2012.
159. Solving the Concussion Crisis. CACTIS Foundation. Scottsdale, AZ. March 16, 2012.
160. Solving the Concussion Crisis. New York University. Scarsdale, NY. March 28, 2012.
161. Advanced Concussion Training. Elmhurst College. Elmhurst, IL. April 3, 2012.
162. Keynote - Solving the Sports Concussion Crisis. Brain Injury Association of Maryland. Baltimore, MD. April 19, 2012.
163. Advanced Concussion Training. Virginia Department of Health. Fairfax, VA. April 21, 2012.
164. Update on Concussion in Ice Hockey. American Hockey Coaches Association Annual Conference. Naples, FL. April 28, 2012.
165. Advanced Concussion Training. Westport Police Athletic League. Westport, CT. May 3, 2012.
166. Concussion: What Athletic Directors Should Know. Illinois Athletic Directors Association. Peoria, IL. May 5, 2012.
167. Finding Your Passion. Commencement Speech. Bay State College. Boston, MA. May 10, 2012.

168. Advanced Concussion Training. Chicago Public Schools. Chicago, IL. May 11, 2012.
169. Advanced Concussion Training. Gaithersburg, MD. May 19, 2012.
170. Solving the Concussion Crisis. Brain Injury Association of New York. Albany, NY. June 5, 2012.
171. Concussions in Schools. Founder's League Conference. Windsor, CT. June 13, 2012.
172. [Head Games: Can Football Be Saved from Itself?](#) Aspen Ideas Festival. Aspen, CO. June 27, 2012. With Jim Brown, Kevin Turner.
173. Advanced Concussion Training. Chicagoland Youth Football League. Lake Zurich, IL. July 9, 2012.
174. Advanced Concussion Training. Walter Payton Foundation. Sandwich, IL. July 26, 2012.
175. Advanced Concussion Training. Sycamore Youth Football Association. Sycamore, IL. July 27, 2012.
176. Keynote: Solving the Concussion Crisis. Santa Barbara Cottage Hospital. Santa Barbara, CA. August 6, 2012.
177. Concussion Care for Youth Athletes. Prince William Youth Sports Health & Safety Symposium. Manassas, VA. August 11, 2012
178. Solving the Concussion Crisis. Baylor Medical Center at Frisco. Frisco, TX. August 12, 2012.
179. Advanced Concussion Training. Mater Dei School. Santa Ana, CA. August 18, 2012.
180. Advanced Concussion Training. Los Angeles Unified School District. Los Angeles, CA. August 20, 2012.
181. Advanced Concussion Training. Oakland Unified School District. Oakland, CA. August 21, 2012.
182. Advanced Concussion Training. Arlington (VA) Public Schools. Arlington, VA. August 28, 2012.
183. Advanced Concussion Training. Community Concussion & Brain Injury Policy Discussion. City of Worcester Department of Public Health. Worcester, MA. September 9, 2012.
184. Keynote: Solving the Concussion Crisis. Tennessee Self-Insurer's Association Annual Conference. Nashville, TN. September 13, 2012.
185. Keynote: Solving the Concussion Crisis. 30th Annual Education Conference. Brain Injury Association of Indiana. Indianapolis, IN. September 14, 2012.
186. Gray Matters: Brain Injury in Sports. Ford Hall Forum. Suffolk University Law School. Boston, MA. September 27, 2012.
187. Solving the Concussion Crisis. Inaugural Chronic Traumatic Encephalopathy Conference (CTE). Cleveland Clinic Lou Ruvo Center for Brain Health. October 1, 2012.
188. Solving the Concussion Crisis. Fred Kavli Public Symposium. Society for Neuroscience. New Orleans, LA. October 13, 2012.
189. Advanced Concussion Training. Saint Francis Medical Center. Cape Girardeau, MO. October 18, 2012.
190. Advanced Concussion Training for Parents. Loomis Chafee School. Windsor, CT. October 19, 2012.
191. The International Concussion Crisis. Eisenhower Fellowships Unconference. Boston, MA. November 8, 2012.
192. Playing Safety: The Future of Youth Football? Aspen Institute Project Play. Washington, DC. November 9, 2012.
193. Advanced Concussion Training for Athletic Directors. Chicago Public Schools. Chicago, IL. November 30, 2012.

194. How Technology Will Help Solve the Concussion Crisis. Sports and Fitness Industry Association – Athletic Business Conference & Expo. Las Vegas, NV. January 8, 2013.
195. Solving the Concussion Crisis. Cape Henry Collegiate School. Norfolk, VA. January 15, 2013.
196. Advanced Concussion Training. Francis Parker School. Chicago, IL. January 16, 2013.
197. Advanced Concussion Training. Arlington (VA) Public Schools. Arlington, VA. January 23, 2013.
198. Advanced Concussion Training. Aspen Valley Ski Club. Aspen, CO. January 25, 2013.
199. Major League Lacrosse Concussion Policy. First Annual Professional Lacrosse Sports Medicine Symposium. Denver, CO. January 26, 2013.
200. Solving the Concussion Crisis. Mild Traumatic Brain Injury Symposium. Toronto, Ontario, CA. February 8, 2013.
201. Concussions: An Athlete’s Personal History. Advances in Sports Neuropsychology and Concussion Management – International Academy of Applied Neuropsychology. Wurzburg, Germany. February 22, 2013
202. Chronic Traumatic Encephalopathy: Research and New Developments. Advances in Sports Neuropsychology and Concussion Management – International Academy of Applied Neuropsychology. Wurzburg, Germany. February 23, 2013.
203. Concussions in Sports. Association of Health Care Journalists Conference. Boston, MA. April 16, 2013.
204. Keynote: Solving the Concussion Crisis. American Society of Workers Comp Professionals Annual Conference. Las Vegas, NV. March 21, 2013.
205. Keynote: Concussions, CTE, and Youth Athletes. Children’s Hospital of Philadelphia Pediatric Concussion Conference. Philadelphia, PA. April 6, 2013.
206. Concussions & College Athletes. Washington State University. Pullman, WA. April 16, 2013.
207. Concussions, CTE & Baseball. Colorado Rockies. Denver, CO. April 22, 2013.
208. Solving the Concussion Crisis. Manchester College. Manchester, IN. May 3, 2013.
209. Hit Count: Limiting Repetitive Brain Trauma. Brain Trauma and the Athlete. Harvard Medical Conference. Boston, MA. May 17, 2013.
210. Head Games: Solving the Concussion Crisis. New York State Athletic Trainers Association. Jamestown, NY. May 31, 2013.
211. Concussions in Sports. President’s Roundtable, Jamestown Community College. Jamestown, NY. May 31, 2013.
212. Keynote: Solving the Concussion Crisis. 2013 National Meeting of the Safe States Alliance and SAVIR. Johns Hopkins University, Baltimore, MD. June 5, 2013.
213. Advanced Concussion Training. Winchester (MA) Pop Warner. Winchester, MA. June 9, 2013.
214. The Impact of Head Injuries in Sport. Boston Globe Talk. June 19, 2013.
215. Conquering Concussions. WWE. Orlando, FL. July 8, 2013.
216. Advanced Concussion Training. Central Massachusetts Pop Warner. Grafton, MA. July 24, 2013.
217. Keynote: Solving the Concussion Crisis. Virginia Department of Aging and Rehabilitative Services. Richmond, VA. July 26, 2013.
218. Advanced Concussion Training. Florida High School Athletic Association Annual Athletic Directors Conference. Tallahassee, FL. August 2, 2013.

219. Advanced Concussion Training. Florida High School Athletic Association Annual Athletic Directors Conference. Osceola, FL. August 9, 2013.
220. Cumulative Sports Concussions: An overlooked Epidemic. Aspen BrainLAB. Aspen, CO. August 10, 2013.
221. Advanced Concussion Training. Sidwell Friends School. Washington, DC. August 26, 2013.
222. Advanced Concussion Training. Prince William County Schools (VA). Nokesville, VA. August 27, 2013.
223. Advanced Concussion Training. Anne Arundel County Coaches (MD). Millersville, MD. August 28, 2013.
224. Solving the Concussion Crisis. The Shipley School. Bryn Mawr, PA. September 3, 2013.
225. Conquering Concussions. WWE. Orlando, FL. September 9, 2013
226. Conquering Concussions. WWE. Cleveland, Ohio. September 16, 2013.
227. The Concussion Crisis. Elon University. Elon, NC. September 17, 2013.
228. The Concussion Crisis. Harvard Club of New York. New York City, NY. September 18, 2013.
229. Keynote: Technology and the Concussion Crisis. The Safety Institute Conference. Chicago, IL. September 24, 2013.
230. Solving the Concussion Crisis. Entrepreneurs' Organization, Boston Chapter. Boston, MA. September 25, 2013.
231. Keynote: The Sports Concussion Crisis. International Association of Claims Professionals Annual Conference. Marana, AZ. October 1, 2013.
232. Head Games: Solving the Concussion Crisis. Reading Health System. Reading, PA. October 2, 2013.
233. Solving the Concussion Crisis. Norwell High School. Norwell, MA. October 3, 2013.
234. Concussions in Sports Seminar. Riverdale Country School. Bronx, NY. October 8, 2013.
235. Concussions and Turf. Brock International Educational Seminar. Boulder, CO. October 17, 2013.
236. Concussions & CTE: What Rugby Players Should Know. Rugby Players Association. London, England. October 20, 2013.
237. Keynote: Solving the Concussion Crisis. District School Board Niagara 2nd Annual International Concussion Summit. Niagara Falls, ON, Canada. October 25, 2013.
238. Advanced Concussion Training for Action Sports. Ski & Snowboard Club Vail. Vail, CO. October 28, 2013.
239. Conquering Concussions. Suffolk University. Boston, MA. October 29, 2013.
240. Concussion in Professional Sports Panel. Harvard Law School. Cambridge, MA. October 30, 2013.
241. Mitigating Risk: The US Experience. Professional Rugby Concussion Forum hosted by Rugby Football Union, Rugby Players Association & Premier Rugby. Twickenham, United Kingdom. November 7, 2013.
242. Concussions & CTE: What Every Athlete Should Know. Australian Football League Players Association Board Meeting. Melbourne, Australia. November 18, 2013.
243. The International Concussion Crisis. Hosted by the Australian Football League Players Association. Melbourne, Australia. November 19, 2013.
244. Solving the Concussion Crisis. Acquired Brain Injury Ireland – Brain Injury and Sport. Dublin, Ireland. December 13, 2013.
245. Intro to Concussions for WWE Professional Wrestlers. Orlando, FL. January 17, 2014.

246. The Sports Concussion Crisis. Cary Lecture Series. Lexington, MA. January 25, 2014.
247. The Global Concussion Crisis and Youth Sports Reform. C4CT Concussion Conference. United Nations, New York, NY. January 29, 2014.
248. Advanced Concussion Training for Coaches. Prince William County Schools. Woodbridge, VA. February 24, 2014.
249. Concussion from the Athlete's Perspective. Arsenal Football Club. London, England, UK. March 4, 2014.
250. Forgotten syndrome to front page news: bringing CTE to the 21st century. British Neuropathological Society Symposium. March 5, 2014.
251. Concussion & CTE: New Findings and Their Implications. Independent Insurance Agents of Westchester County. Tarrytown, New York. March 6, 2014.
252. Panel Discussion: Head Games: the Global Concussion Crisis. Mayo Clinic. Scottsdale, AZ. March 8, 2014
253. Panel Discussion: The Sports Concussion Crisis. SXSW. Austin, TX. March 9, 2014.
254. Advanced Concussion Training for Communities. Parkview Health. Fort Wayne, IN. March 11, 2014.
255. Concussions, CTE, & Dementia. Alzheimer's Association of Florida. Orlando, FL. March 15, 2014.
256. Sports Concussion Prevention. Synthetic Turf Council. Las Vegas, NV. March 18, 2014.
257. The Sports Concussion Crisis. Highfields Capital. Boston, MA. March 25, 2014.
258. The Sports Concussion Crisis. Chattanooga Area Brain Injury Association. March 27, 2014.
259. Solving the Global Concussion Crisis. Intermediaries & Reinsurance Underwriters Association. Jacksonville, FL. April 7, 2014.
260. Solving the Global Concussion Crisis. Azusa Pacific University. Los Angeles, CA. April 8, 2014.
261. The Concussion Crisis and the Modern Athlete. Octagon. Tyson's Corner, VA. May 1, 2014.
262. Intro to Concussions for WWE Professional Wrestlers. Orlando, FL. May 5, 2014.
263. Concussions, CTE, & Dementia. Alzheimer's Association of Northern California & Northern Nevada. Foster City, CA. May 6, 2014.
264. Advanced Concussion Training for Coaches. Cella Foundation. May 13, 2014.
265. CTE & College Sports. Ivy League – Big 10 Conference. Philadelphia, PA. July 26, 2014.
266. Concussion Disruption. Aspen Disruption Conference. Aspen, CO. July 20, 2014.
267. Concussion Prevention. Coalition for Concussion Treatment. United Nations, New York, NY. July 31, 2014.
268. Advanced Concussion Training for Athletic Directors. Florida High School Athletic Association. Miami, FL. August 8, 2014.
269. Advanced Concussion Training for Athletic Directors. Florida High School Athletic Association. Orlando, FL. August 14, 2014.
270. Advanced Concussion Training for High School Athletes. The Shipley School. Bryn Mawr, PA. August 28, 2014.
271. Advanced Concussion Training for Coaches. The Shipley School. Bryn Mawr, PA. August 28, 2014.
272. Advanced Concussion Training for Coaches. Arlington Public Schools. Arlington, VA. September 15, 2014.

273. Concussion Prevention. Brock International. Tyson's Corner, VA. September 23, 2014.
274. Concussion Update for WWE Professional Wrestlers. WWE. New York City. October 6, 2014.
275. Concussion, CTE, and Suicide. Reaction Everyone Preventing Suicide (REPS). Steamboat Springs, CO. October 17, 2014.
276. Concussions and the Future of Sports. CEO Global Leaders Forum. New York City, NY. October 20, 2014.
277. Concussions & College Sports. Bentley University. Waltham, MA. October 27, 2014.
278. Intro to Concussions for WWE Professional Wrestlers. Orlando, FL. October 28, 2014.
279. Concussion Update for WWE Professional Wrestlers. WWE. New York City. October 28, 2014.
280. Advanced Concussion Training for Communities. Deerfield Academy. Deerfield, MA. November 4, 2014.
281. Changing the Concussion Culture. Deerfield Academy. Deerfield, MA. November 5, 2014.
282. Debate: When Should Boys Begin Tackle Football? University of Pittsburgh. Pittsburgh, PA. November 7, 2014.
283. Solving the Concussion Crisis. PentaVision. Optometric Management Symposium. Orlando, FL. December 5, 2014.

284. Solving the Concussion Crisis. EDGE Conference. The Ad Club. Boston, MA. January 12, 2015.
285. Solving the Concussion Crisis. BrainSTEPS. Downingtown, PA. January 13, 2015.
286. Solving the Concussion Crisis. Glen Urquhart School. Beverly, MA. January 15, 2015.
287. Solving the Rugby Concussion Crisis. USA Rugby Annual Medical Conference. Las Vegas, NV. February 12, 2015.
288. Solving the Concussion Crisis. Association of Delaware Valley Independent Schools. Bryn Mawr, PA. February 24, 2015.
289. Wrestling with Concussions. Villanova School of Law. Bryn Mawr, PA. February 24, 2015.
290. Wrestling with Concussions. The Shipley School. Bryn Mawr, PA. February 24, 2015.
291. Hit Count Initiative. Symposium on Head Acceleration Measurement Sensors. Virginia Tech University. Blacksburg, VA. March 10, 2015.
292. Conquering Concussions for Elite Athletes. Pepperdine University. Malibu, CA. March 11, 2015.
293. Solving the Concussion Crisis. Sports Medicine North Orthopedic Surgery Symposium. Portsmouth, NH. March 14, 2015.
294. Solving the Concussion Crisis. 26th Annual Brain Injury Association of Tennessee Conference. Nashville, TN. March 17, 2015.
295. Conquering Concussions. The Shipley School. Bryn Mawr, PA. September 2, 2015.
296. Concussions for Coaches. The Shipley School. Bryn Mawr, PA. September 2, 2015.
297. Conquering Concussions. Brooks School. North Andover, MA. September 29, 2015.
298. Solving the Concussion Crisis. Texas Lutheran University. Seguin, TX. October 7, 2015.
299. Protecting High School Athletes. Scarsdale High School. Scarsdale, NY. October 14, 2015.

300. Solving the Concussion Crisis. Turnaround Management Association. Atlanta, GA. October 16, 2015.
301. Solving the Concussion Crisis. Northern Essex Community College. Tyngsboro, MA. October 21, 2015.
302. Concussions and Surfaces. Brock Educational Symposium. Boulder, CO. October 28, 2015
303. The Cutting Edge of Concussions. HealthSouth Braintree Rehabilitation Hospital 36nd Annual Neurorehabilitation Conference. Cambridge, MA. November 8, 2015
304. Sports Concussions and the Law. Harvard Law School. Cambridge, MA. November 12, 2015.
305. Sports Concussions and the Law. Harvard Law School. Cambridge, MA. January 18, 2016.
306. Concussion Prevention. Brock International Seminar. Frisco, TX. February 25, 2016.
307. CTE in Female Athletes. Pink Concussions National Summit on Female Concussions. Washington, D.C. February 27, 2016.
308. Advanced Concussion Training. The Latin School. Chicago, IL. March 7, 2016.
309. Solving the Concussion Crisis. Lynnfield Middle School. Lynnfield, MA. March 10, 2016.
310. Advanced Concussion Training. Bowdoin College, Bowdoin, ME. April 14, 2016.
311. What's next in Sports Safety; Panel. BU Sports Communications Summit; Play It Forward. Boston University College of Communications. Boston, MA. April 15, 2016.
312. The Collegiate Athlete. 6th Annual Entertainment and Sports Law Symposium at Cleveland-Marshall College of Law. Cleveland, Ohio. April 22, 2016.
313. Can Science Save Contact Sports; Panel. Collision Conference. New Orleans, LA. April 26, 2016.
314. Concussions and Ocular Damage. Doctors Eyecare. Calgary, Canada. May 14, 2016.
315. Solving the Concussion Crisis. Oklahoma Athletic Trainers Association, Oklahoma City, OK. May 21, 2016
316. Concussions and Mental Health. HealthSpottr Conference. Aspen, CO. June 9, 2016.
317. Concussions & CTE: New Frontiers in Neuroscience. Congress of Future Medical Leaders. Lowell, MA. June 25, 2016.
318. Concussions in Professional Wrestling. WWE. Tampa, FL. June 27, 2016.
319. Solving the Concussion Crisis. Memorial SportsCare Conference. Springfield, IL. July 22, 2016.
320. CTE in the NFL Panel. Requiem for a Running Back Premiere. The Carter Center. Atlanta, GA. August 18, 2016.
321. Solving the Concussion Crisis. Tiger Bay Club. Pensacola, FL. August 19, 2016. August 19, 2016.
322. A Call to Leadership Panel. The Shipley School, Bryn Mawr, PA. September 1, 2016.
323. Whose Bell was Really Rung? Panel Discussion. City Club of Chicago, Chicago, IL. September 12, 2016.
324. Hitting Children in the Head. The Nantucket Project, Nantucket, MA. September 25, 2016.
325. Concussions and Vision. Doctors EyeCare Conference. Toronto, Ontario, Canada. October 15, 2016.
326. Concussions and Surfaces. American Society of Landscape Architects Conference. New Orleans, LA. October 24, 2016.
327. Concussions and Surfaces. Synthetic Sports Fields: the Next Decade Conference. Foxboro, MA. October 27, 2016.

328. Concussions, CTE, the NFL and the Law. Harvard Law School, Cambridge, MA. November 10, 2016.
329. The Sports Concussion Crisis: Understanding and Managing an Emerging Health Crisis. New England Preparatory School Athletic Conference. Worcester, MA. November 18, 2016.
330. Concussions: What High School Athletes Need to Know. Nobles and Greenough School, Dedham, MA. February 8, 2017.
331. Hitting Children in the Head. The Nantucket Project. Palm Beach, FL. March 2, 2017.
332. The Legal and Ethical Issues Affecting NFL Player Health. Harvard Law School. Cambridge, MA. March 7, 2017.
333. Synthetic Turf as Safety Equipment. Synthetic Turf Council Spring Meeting. Las Vegas, NV. March 13, 2017.
334. Solving the Concussion Crisis. Young Presidents Organization Boston. March 26, 2017.
335. Keynote: Solving the Concussion Crisis. District School Board Niagara 5th Annual International Concussion Summit. Niagara Falls, ON, Canada. May 5, 2017.
336. Keynote: Controlling Your Concussion Destiny: My journey from patient to advocate to researcher. See the Line. Western University. London, Ontario, Canada. August 16, 2017.
337. Solving the Concussion Crisis. Latin School of Chicago. Chicago, Illinois. September 26, 2017.
338. Team Up Against Concussions. Latin School of Chicago. Chicago, Illinois. September 27, 2017.
339. Legal Issues in CTE. Harvard Law School. October 12, 2017.
340. Concussions, CTE, and Technology. Sports Biometrics Conference. November 29, 2017.
341. Concussions, CTE, and Sports. Harvard Club of Chicago. November 30, 2017.
342. Legal Issues in CTE. Harvard Law School. October 12, 2017.
343. Legal Issues in CTE. Harvard Law School. January 19, 2018.
344. Concussions & CTE. Michigan State University Visiting Lecture Series. Lansing, MI. February 9, 2018.
345. Concussions & CTE. Michigan State University Grand Round for Residents. Lansing, MI. February 9, 2018.
346. Concussions and Kids. Regis High School. New York, NY. February 12, 2018.
347. Concussions and Kids. The Nantucket Project Satellite Event. February 13, 2018.
348. Legal Issues in CTE. Harvard Law School. February 25, 2018.
349. Keynote: Solving the Concussion Crisis. New England University. February 25, 2018.
350. CTE and Football. Mary Seau Foundation. San Diego, CA. March 30, 2018
351. Concussions in Sports. Maine High School Athletic Administrators Association. April 4, 2018.
352. Ban Youth Tackle Football. Pressing Questions in Sports Law, Policy, Media and Science: Concussions, CTE, and Conditions in Between. NYU School of Professional Studies Sports & Society. April 18, 2018.
353. Solving the Concussion Crisis: How New Research is Changing How Sports. Dignity Health. Arroyo Grande, CA. April 21, 2018.
354. Secrets of Concussions: What You Need to Know to Prolong Your Career and Protect Your Friends. Dignity Health. Arroyo Grande, CA. April 21, 2018.

355. Protecting Athletes from Concussions. Illinois High School District 214. Arlington Heights, IL. April 25, 2018.
356. Concussions and CTE: My Journey. New Jersey Brain Injury Alliance. Freehold, NJ. May 17, 2018.
357. Ban Youth Tackle Football. Council of State Governments Eastern Regional Conference. Rye Brooke, New York. August 8, 2018.
358. Concussions, CTE & Professional Wrestling. Staying Safe. Toronto, Ontario, Canada. August 27, 2018.
359. Concussions, CTE & Professional Wrestling. Staying Safe. Toronto, Ontario, Canada. August 28, 2018.
360. CTE: The VA-BU-CLF Experience. Hospital Samaritano Neurology Group. Sao Paulo, Brazil. October 2, 2018.
361. JFK-Johnson Rehabilitation Institute Post-Concussion Syndrome Conference. Edison, NJ. November 1, 2018.
362. Concussions and Kids. Mighty Meredith Foundation. North Reading, MA. December 5, 2018.
363. Legal Questions in Concussions & CTE. Columbia Law School. January 24, 2019.
364. Concussions 101. New England Center for Children. February 5, 2019.
365. CTE in Contact Sports: Updates and Recommendations. February 28, 2019.
366. Concussions and Professional Wrestling: 2019 Update. WWE NXT. June 5, 2019.
367. Keynote: Concussion and Headache. American Headache Society. July 11, 2019.
368. Solving the Concussion Crisis. Edmonton Public Library Speaker Series. September 17, 2019.
369. Solving the Concussion Crisis. College of William & Mary Ethics & Integrity Week. September 19, 2019.
370. My Concussion Experience. Cantu Concussion Center Annual Conference. September 20, 2019
371. The Case for Flag Football Under 14. Cantu Concussion Center Annual Conference. September 20, 2019
372. Concussions and Professional Wrestling. All-Elite Wrestling (AEW). Chicago, IL. September 30, 2019.
373. CTE and the Law. Harvard Law School. Cambridge, MA. October 10, 2019.
374. Current State of CTE Brain Banking and Donation/Acquisition. The Neuropathological Diagnosis of CTE: Next Steps Workshop. National Institute of Neurological Disorders and Stroke (NINDS). Bethesda, MD. November 7, 2019.
375. Keynote: Concussions: Your End, or a New Beginning? Jackson Watershed Gala. November 9, 2019.
376. CTE: The American Experience. University of Sydney. Sydney, Australia. December 4, 2019.
377. CTE: The American Experience: University of Auckland. Auckland, New Zealand. December 6, 2019.
378. The State of CTE Science. New Zealand Traumatic Brain Injury Network. Auckland, New Zealand. December 9, 2019.
379. Concussions and Professional Wrestling. NWA. Atlanta, GA. December 16, 2019.
380. Concussions and Professional Wrestling. Ring of Honor. Charlotte, NC. January 12, 2020.
381. Grand Rounds: Concussions and CTE. Beth Israel Deaconess Medical Center. Anesthesia Department. Boston, MA. January 15, 2020.
382. Concussions, CTE, Sports, and the Law. Harvard Law School. Cambridge, MA. January 15, 2020.

383. Ring of Honor Concussion Education. Charlotte, NC. January 21, 2020.
384. Concussions, CTE, & Current Legal Issues. Paul H. O'Neill School of Public and Environmental Affairs at Indiana University. Sports Law & Public Policy. February 25, 2020.
385. Football & CTE: How New Data Can Save the NFL. MIT Sports Analytics Conference. March 7, 2020.
386. Changing the Legacy of Traumatic Brain Injury in Sport. Aspen Brain Institute. October 15, 2020.
387. CTE in the NFL. Roch the Cause by Sisters in Sports. October 21, 2020.
388. Concussions, CTE, Sports, and the Law. Harvard Law School. Cambridge, MA. October 22, 2020.
389. Concussions and Professional Wrestling. All-Elite Wrestling (AEW). Jacksonville, FL. November 8, 2020.
390. Team Up Speak Up. US Lacrosse LaxCon 2021. Virtual. January 9, 2021.
391. Concussions in School – The Lawrenceville Faculty. The Lawrenceville School. Virtual. February 17, 2021.
392. Conquering Concussions – Lawrenceville Students. The Lawrenceville School. Virtual. March 25, 2021.
393. Concussion Legacy Foundation Overview. Indiana University. Virtual. March 30, 2021.
394. Concussions, CTE, Sports, and the Law. University of Miami Law School. Virtual. Miami, FL. April 3, 2021.
395. Concussions and Professional Wrestling. All-Elite Wrestling (AEW). Chicago, IL. September 3, 2021.
396. Conquering Your Concussion. BrainTrust. Virtual. September 29, 2021.
397. Concussions, CTE, Sports, and the Law. Harvard Law School. Cambridge, MA. October 14, 2021.
398. Living with Possible CTE. Chris Nowinski interviews Jonathan Martin and Stephen Thompson. Boston University CTE Conference. October 22, 2021.
399. Leaving Your Legacy. Otsuka Pharmaceuticals. November 15, 2021. San Diego, MA.
400. Concussions, CTE, Sports, and the Law. Harvard Law School. Cambridge, MA. January 19, 2022.

Instructor name: William E. Morgan, DC

Course Duration: 2 Hours

Title: Transforming Amputee Outcomes: Practical Insights for Healthcare Providers

Course Description: This course offers an introduction exploration of advanced topics in the biomechanical, neurological, and metabolic changes found in patients with amputations, focusing on interdisciplinary approaches and emerging areas of research. Participants will not only explore the primary effects of limb loss, but also the secondary effects.

These secondary effects include: heterotopic ossification (HO), complex regional pain syndrome (CRPS), phantom limb pain (PLP), and metabolic changes. Additionally, discussions will cover spinal conditions in amputees, gait and biomechanical considerations, the four-bar mechanism of the knee, joint replacement, comorbid conditions, and limb salvage. Through lectures, case studies, and interactive sessions, attendees will gain valuable insights to enhance their clinical practice and improve patient outcomes.

Learning Objectives:

This course provides participants with an introduction to understanding advanced topics in amputation rehabilitation, empowering them to deliver high-quality care and improve patient outcomes in diverse clinical settings.

Patient Outcomes:

- Understanding how to cope with amputation.
- Strategies for successful treatments
- Understanding and communicating the structural components of the amputee.
- Clinical management of this patient population.

Etiology and Risk Factors

0- 15 Minutes

- Exploration of factors leading to limb loss.
- Identification of risk factors for amputation.

Clinical Manifestations and Diagnostic Approaches

15-30 minutes

- Recognizing signs and symptoms of amputation-related conditions
- Diagnostic methods and assessments.

Interrelation with Other Conditions

30-45 minutes

- Understanding the connections between amputation and related conditions
- Exploration of how amputation impacts neurological, biomechanical, and metabolic functions.

Biomechanical Considerations

45-60 minutes

- Analysis of biomechanical aspects affecting limb loss patients
- Strategies for optimizing biomechanical function.

Metabolic Changes in Limb Loss

60-75 minutes

- Examination of metabolic alterations post-amputation
- Implications for overall health and rehabilitation outcomes
- Management strategies for metabolic changes in patients with limb loss

Neurological Effects of Amputations

75-90 minutes

- Evaluation of neurological impacts of limb loss
- Discussion on amputation neuromas and their management
- Connection between phantom limb pain (PLP) and tinnitus

Understanding Heterotopic Ossification (HO)

90-105 minutes

- Definition and pathophysiology of HO
- Etiology, risk factors, and clinical manifestations
- Diagnostic approaches and management strategies

Spinal Conditions in Amputees

105-120 minutes

- Prevalence and types of spinal conditions in amputee populations
 - Clinical assessment and management considerations
- Gait and Biomechanical Considerations
 - Analysis of gait deviations in amputees
- Strategies for optimizing gait mechanics and functional mobility.
 - Joint Replacement vs. Amputation
 - Comparative analysis of joint replacement and amputation procedures
- Comorbid Conditions and Limb Salvage
 - Impact on rehabilitation and prosthetic use
 - Strategies for preserving functional independence and limb salvage

Curriculum Vitae

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Dallas, TX 75229

(240) 750-3891, Mobile

Work Email: Wmorgan@Parker.edu
Private Email: MorganDC@gmail.com

SSN: XXX XX 6420

National Provider Identification Number: 1841251436

Marital Status: Married to Fellow Chiropractor Clare Morgan since 1987

Education:

| | |
|--|--------------------|
| Prerequisites for chiropractic college. Diablo Valley College 321 Golf Club Road, Pleasant Hill, CA 94523 | January 1982 |
| Doctor of Chiropractic, Palmer College of Chiropractic-West. 90 E. Tasman Drive, San Jose, CA 95134 | September 20, 1985 |
| Bachelor of Science. The University of the State of New York at Albany (now Excelsior College). 7 Columbia Circle, Albany, NY 12203-5159 | December 20, 1996 |

Post-Doctoral Credentials:

| | |
|---|-------------------|
| Fellowship in Integrated Medicine (2000 hours). National Naval Medical Center, Bethesda Texas Chiropractic College credentialed this fellowship Texas Chiropractic College 5912 Spencer Highway Pasadena, Texas 77505-1699 | May 31, 2004 |
| Diplomate American Academy of Pain Management (DAAPM), 2004 American Academy of Pain Management 13947 Mono Way #A Sonora, CA 95370 | July 19, 2004 |
| Battlefield Acupuncture/Articular Acupuncture Camp David Medical Department Thurmont, Maryland | January 15, 2014 |
| Selective Functional Movement Assessment | September 6, 2014 |

Certification Course
Walter Reed National Military Medical Center, Bethesda, Maryland

Graston Myofascial Release Certification Course 2002

Employment History

| Name and Address of Employer | From | To |
|---|---------------|---------|
| (1) Parker University, President 2540 Walnut Hill Lane, Dallas, TX 75229 | June 15, 2016 | Present |

Work Performed: Duties of university president and head of Parker Seminars.

| | | |
|--|------|------|
| (2) U.S. Navy National Naval Medical Center (NNMC) Bethesda, Maryland 1998-2011 Walter Reed National Military Medical Center 2011-Present | 1998 | 2016 |
|--|------|------|

Work Performed: Chiropractic care, department head responsibilities (NNMC), research coordinator, patient advocacy, lecturing, supervision of other clinic personnel, provide care to distinguished visitors, and implementation of rehabilitation programs.

Chiropractor to Congress: Maintain a clinical practice within the U.S. Capitol building working in the Office of the Attending Physician twice a week providing care to the U.S. Congress and the Supreme Court.

Provide chiropractic care at the White House and Camp David as a visiting consultant.

Train and supervise medical and chiropractic students, interns, and residents. Train dental residents (oral facial pain specialty training) rotating through the chiropractic department.

Research investigator.

| | From | To |
|---|-----------------|--------------|
| (2) United States Naval Academy Annapolis Maryland | August 12, 2009 | June 8, 2016 |

Worked Performed: Provide chiropractic care to elite athletes as the chiropractor to the United States Naval Academy football team; provide care for Naval Academy athletes after practices, prior to games, and on the sidelines of games. This position requires collaboration and integration with physicians, trainers, coaches, physical therapists, and nutritionists.

Speaker Name: Nicky Kirk, DC

Course Title: Advanced Techniques in Rehabilitation: Blood Flow Restriction and Concussion Management

Course Description: This course delves into innovative rehabilitation techniques focusing on blood flow restriction therapy and concussion management. It aims to equip healthcare professionals with the knowledge and skills to apply these methods in clinical settings, enhancing recovery outcomes for patients with traumatic brain injuries and other related conditions.

Learning Objectives:

1. Understand the principles and physiological effects of blood flow restriction (BFR) therapy.
2. Explore the application of BFR in rehabilitation settings, particularly for muscle strengthening and recovery.
3. Gain insights into the pathophysiology of concussions and their impact on the nervous system.
4. Learn about the integration of BFR therapy in managing post-concussion symptoms.
5. Discuss case studies and clinical evidence supporting the use of BFR and concussion rehabilitation strategies.

Patient Outcomes:

1. Improved exercise tolerance
2. Decreased symptoms related to dizziness, brain fog, headache or nausea
3. Faster return to sport and activity

Course Outline:

Course Outline:

- **0-15 minutes:** Introduction to Blood Flow Restriction Therapy
- Overview of BFR concepts and physiological mechanisms.
- Safety protocols and patient selection criteria.

Application of BFR in Clinical Rehabilitation

- Techniques for implementing BFR in muscle recovery and strengthening.
- Equipment and monitoring essentials.

- **15-30 minutes:** Understanding Concussions

- Review the neurophysiology of concussions.
- Discuss the short-term and long-term impacts of traumatic brain injuries.

- **30-45 minutes:** BFR in Concussion Management

- Integrating BFR therapy to manage post-concussion symptoms.
-

- Rehabilitation protocols and adjustments according to patient progress.
- **45-60 minutes:** Case Studies and Evidence-Based Practice
- Review clinical trials and research studies on BFR and concussion rehabilitation.
- Analyze patient outcomes and efficacy of combined treatments.

Q&A and Discussion

- Address specific queries from participants.
 - Discuss practical challenges and solutions in applying these techniques.
-

Dr Nicky Kirk D.C MSC BSC

Sports Medicine Specialist

Contact Info



1612 Mack Lane, Little Elm, Tx 75068



+1 972 679-7894



Nickymathewkirk@gmail.com

Profile

I am a chiropractic sports physician who has worked internationally with top performance from a variety of disciplines. I have been a clinician for 20 years with a special focus on performance and rehabilitation. In addition to my clinical work, I have been engaged in education for the past 5 years as an assistant professor at Parker University supervising chiropractic interns and adjunct professor instructing at post graduate degree programs including Advanced Strength and Conditioning, Cardiovascular Health and Exercise and Health.

I have provided sports medicine services to both professional athletes and high-level organizations. In addition to my consultancy work, I was also regional assessor for the Gatorade Sports Science Institute Latin America and Caribbean.

I am currently a clinical specialist at Parker Performance Institute and lead clinician on the Human Performance program at Parker Clinics, Frisco, Texas and completed a masters degree in clinical neuroscience, August 2020.

I continue to be engaged in clinical research, teaching and consultancy with a special focus on soccer, and the application of recovery modalities.

Career Experience

Clinical Specialist

July 2021 to Present

Parker Performance Institute, Frisco Tx.

KEY RESPONSIBILITIES:

- Oversee the clinical neurology and sports performance departments within a multidisciplinary clinic.
- Preparation of care plans and rehabilitative programs for patients and athletes.
- Supervise clinical interns during their rotation at the clinic and performance center.

LEAD INSTRUCTOR

December 2019 to Present

M.Sc. Human Performance Program, Parker University

KEY RESPONSIBILITIES:

- Lead instructor Bachelor of Science Program, Ex. Physiology, Biomechanics, Kinesiology and Exercise Prescription.
- Lead Instructor Masters of Human Performance Program, Cardiovascular Rehabilitation and Endocrine Physiology.
- Development of Masters level modules, cardiovascular health and exercise, exercise physiology, biomechanics, exercise prescription and kinesiology.
- Lead Clinician for Human Performance Program.
- Experienced with blackboard and LMT.

Licenses and Certifications

Doctor of Chiropractic TX #14039
Owen's Recovery Science BFR Certified
Certified Chiropractic Sports Physician,
Functional Range Release/Functional Range Conditioning,
Functional Neurologic Orthopaedic Rehabilitation
Registered Practitioner Chiropractic UK #2138

Selected Health Talks and Seminars

Blood Flow Restriction Training Clinical Applications, F.I.M.S, Conade, Guadalajara, Mexico

September, 2022

Neurovisual Training: Parker University, Orlando Florida

June, 2022

4 hour workshop on Blood Flow Restriction Concepts: Texas Chiropractic College

July, 2021

Blood Flow Restriction Concepts: Rehab 2 Performance invited speaker

July, 2020

Running Mechanics Professional - Biomechanics of Running, Andrew's Institute, Plano, TX

Nov, 2019

Private Seminar Blood Flow Restriction – Club Atletico Nacional, Medellin, Colombia,

Oct, 2019

Evaluación Integral del Atleta y Aplicación de Técnicas de Rehabilitación – La Federación Mexicana de Medicina Del Deporte, 2nd Congreso Mexicano De Medicina Del Deporte (Merida, Mexico)

3 al 6 de Julio, 2019

The Complete Athlete Care Model - Keynote Sports Chiropractic Australia Annual Symposium (Perth, Australia)

May 2019

Recovery and Regeneration in the footballer. F.I.C.S. Assembly and Symposium, Berlin

March, 2019

Science of Recovery – Mastermind series webinar (Australia)

Feb 2018

Recovery and Regeneration—featured speaker, American Sports Chiropractic Association (Minnesota)

Aug 2017

Education

| | |
|---|-------------|
| M.Sc. Clinical Neuroscience, Parker University | 2020 |
| PGDip., University of South Wales, Sports Medicine | 2015 |
| C.C.S.P. Palmer College of Chiropractic, Davenport, Iowa, USA, Sports Physician | 2013 |
| M.Sc., University of Surrey, England, Chiropractic | 2004 |
| B.Sc., University of Dundee, Dundee, Scotland, Physiological Science | 2000 |

References Available Upon Request

Speaker Name: Jeffrey Rediger

Course Title: The Four Pillars of Healing and Wellbeing

Course Description

In this exciting talk, Dr. Rediger will report on 19 years of research into the lives of remarkable individuals with medical evidence for recovery from incurable medical illnesses. Through a combination of stories, science and solutions, he will demonstrate what becomes possible when we focus not just on disease management but also on the pillars of deep healing and wellbeing. The argument is that we should be studying improbable recoveries with the same vigor with which we study ultimate achievement in sports and business. This effort is particularly important given that approximately 85 percent of illnesses are lifestyle-related, including all the major killers, such as heart disease, diabetes, cancer, autoimmune illness and lung disease. Yet in traditional medicine we tragically continue to treat symptoms rather than causes, and as if they are incurable illnesses rather than the lifestyle illnesses that they are. If they are created by lifestyle, evidence suggests that they can at least to some degree be reversed by lifestyle. In this seminal talk, we will discuss the four pillars of healing and wellbeing as well as the power of grounded, ethical hope in the context of a science of health and a medicine of hope and possibility.

Learning Objectives

1. Describe four pillars of healing and well-being
2. Discuss the role of developmental trauma in creating nervous system dysregulation and physical illness
3. Describe relevant research and challenges that remain as well as why this research is so important..

Outline (15 min increments)

- Introduction to the Four Pillars of Healing and Wellbeing 15 minutes
- Stories of Healing and Wellbeing and Developmental Trauma 15 minutes
- The science of remarkable recoveries 15 minutes
- Conclusion and Q & A 15 minutes

**Harvard Medical School
Curriculum Vitae**

Date Prepared: April 9, 2023

Name: Jeffrey D. Rediger, M.D., M.Div.

Office Address: McLean Hospital Mail Stop 201
115 Mill St.
Belmont, MA 02478

Home Address: 12 Orchard Ave.
Waban, MA 02468

Work Phone: (774) 419 1017

Work Email: jeffrey_rediger@hms.harvard.edu

Work Fax: (774) 419 1004

Place of Birth: Fort Wayne, IN

Education

| | | | |
|------|--------|------------------------------------|---------------------------------------|
| 1984 | B.A. | Psychology | Wheaton College |
| 1989 | M.Div. | Theology/ Philosophy of Science | Princeton Theological Seminary |
| 1997 | M.D. | Medicine | Indiana University School of Medicine |

Postdoctoral Training

| | | |
|-------------|---|---|
| 07/97-06/98 | Resident in Internal Medicine | Indiana University School of Medicine |
| 07/98-06/01 | Resident in Psychiatry | Cambridge Hospital/Harvard Medical School |
| 07/00-06/01 | Chief Resident Victims of Violence Program | Cambridge Hospital/Harvard Medical School |

Faculty Academic Appointments

| | | |
|---------------|-----------------------------------|------------------------|
| 07/02-02/21 | Instructor in Psychiatry | Harvard Medical School |
| 02/21-current | Assistant Professor of Psychiatry | Harvard Medical School |

Appointments at Hospitals/Affiliated Institutions

| | | |
|-------------|------------------------|------------------------------|
| 07/02-12/20 | Associate Psychiatrist | McLean Hospital, Belmont, MA |
| 12/20- | Psychiatrist | McLean Hospital, Belmont, MA |

03/06- Psychiatrist Beth-Israel Deaconess Hospital, Plymouth, MA
1 hour/month for McLean-associated duties

Other Professional Positions

09/08- Psychiatrist Good Samaritan Medical Center, Brockton, MA
10 hours/week

09/10- Psychiatrist Sturdy Hospital, Attleboro, MA
1 hour/week for McLean-associated duties

08/16-09/20 Chief of Behavioral Medicine Good Samaritan Medical Center, Brockton, MA
2 hours/week

10/17- Faculty Singularity University, NASA Research Park, Moffett Field, CA. A Silicon Valley Think Tank that offers educational programming and is also a business incubator. It was founded in 2008 by Peter Diamandis and Ray Kurzweil.
40 hours/year

Major Administrative Leadership Positions

Local

07/02- Medical Director McLean Southeast Adult Psychiatry and Community Affairs at McLean Hospital

12/10/04 Conference Organizer Spirituality and Religion, The Cambridge Series, Department of Psychiatry, Harvard Medical School

Committee Service

Local

07/95-06/97 Committee for Clinical Sciences Integration Indiana University School of Medicine

07/95-06/97 Committee for Medical School Curriculum Reform Indiana University School of Medicine

07/95-06/97 Freshman Orientation Panel Indiana University School of Medicine

07/96-06/97 Task Force Committee for Primary Care Clerkship Indiana University School of Medicine

07/98-06/99 Residency Education Curriculum Committee Cambridge Hospital

Speaker Name: Katheron Intson

Duration: 1 hour

Course Title: How to Prepare for the Precision Treatment Era: A Genomic Perspective on Health and Disease

Course Description:

Traditional approaches to medicine are rapidly evolving with the integration of genomics, which enables a more precise understanding of disease mechanisms, vulnerability, and treatment efficacy. This course will detail the pivotal role of genomic data in pioneering the era of precision medicine, fundamentally altering approaches to health care, and new therapeutic development. Finally, the implications of these advancements for patient care are explored, including the impact of reversing disabilities and curing previously untreatable diseases.

Learning Objectives:

- Review the link between the human genome and disease manifestation.
- Discuss genetic variants as mechanisms of disease and how harmful genetic mutations can change neurophysiology, cognition, and behavior.
- Explore the journey from genetic discoveries to the development of innovative therapeutic strategies, including gene therapies, from their preclinical phases to clinical trials.
- Examine the implications of these advancements on patient care, including the potential for reversing disabilities and (therefore) emerging areas of functional medicine.

Patient Outcome:

- Help clinicians and patients look beyond the symptom-based model of diagnosis/pathology in medicine
- Enable participants to comprehend genetic reports and understand the impact of genetic variants on health, disease mechanism, and treatment
- Introduce participants to the emerging precision and personalized medicine paradigms, including new types of therapeutic approaches.

Course Outline:

0-15

- Explore how different constellations of genetic variants contribute to a common disease diagnosis

- o Disease areas covered will include neurodevelopmental disorders, neurodegenerative disorders, neuromuscular disorders

- o Discuss how these variants impact disease mechanisms, patient symptoms, and treatment

- Introduce the critical role of genomics in precision medicine, emphasizing how it fills critical gaps left by traditional medical approaches. Highlight the shift from a one-size-fits-all methodology to a more tailored, patient-specific approach to diagnosing and treating diseases based on genetic information.

15-30

- Discuss new ways of studying/characterizing these rare & orphan diseases caused by genetic variants
- Using case studies, illustrate how genomic insights are gathered, and have led to novel therapeutic approaches and treatment plans.

30-40

- Discuss the increasing standardization of genome sequencing in medical practice and its implication
- Explore how precision medicine will scale, influence healthcare delivery, and personalize treatment

40-50:

- Analyze the impact of reversing disabilities and curing diseases and this impact on functional medicine
- Highlight recent advancements in precision medicine, focusing on tailored n=1 therapies and their significance for patient physical ability.

50-60:

- Q&A

Date Submitted: 2024-01-31 16:26:11

Confirmation Number: 1736337

Template: Full CV

Dr. Katheron Intson

Correspondence language: English

Sex: Female

Date of Birth: 6/11

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada, Estonia

Contact Information

The primary information is denoted by (*)

Address

Home (*)

1614-1 Market St
Toronto Ontario M5E0A2
Canada

Telephone

Mobile (*) +1-905-7411359

Email

Work (*) k.intson@utoronto.ca

Dr. Katheron Intson

Language Skills

| Language | Read | Write | Speak | Understand | Peer Review |
|----------|------|-------|-------|------------|-------------|
| English | Yes | Yes | Yes | Yes | Yes |
| French | Yes | Yes | Yes | Yes | Yes |

Degrees

- 2017/9 (2023/11) Doctorate, Doctorate of Philosophy, Pharmacology, University of Toronto
 Degree Status: In Progress
 Thesis Title: Astrocytic NMDA receptors are required for habituation learning *in vivo*
 Transferred to PhD without completing Masters?: Yes
 Supervisors: Amy J. Ramsey, 2016/5 -
 Research Disciplines: Pharmacology, Neurosciences, Genetics
- 2012/9 - 2017/5 Bachelor's Honours, Bachelor of Science, Psychology, Life Sciences, Queen's University
 at Kingston
 Degree Status: Completed
 Thesis Title: Intermittent Physical Stress in Early Adolescence Alters Tryptophan
 Hydroxylase Immunoreactivity Profiles in the Ventrolateral Dorsal Raphe of Adult Female
 Rats
 Supervisors: Janet L. Menard, 2014/4 - 2017/9; Jordan Poppenk, 2015/9 - 2016/8
 Research Disciplines: Neurosciences, Biology and Related Sciences, Psychology

Credentials

- 2017/12 - 2022/8 Collaborative Specialization in Neuroscience, University of Toronto
 This collaborative program serves as the required Minor for my PhD.

Recognitions

- 2020/5 - 2023/4 Alexander Graham Bell Canada Graduate Scholarship (Doctoral) - 105,000 (Canadian
 dollar)
 Natural Sciences and Engineering Research Council of Canada (NSERC)
 Prize / Award
 in recognition of high-calibre doctoral students at Canadian institutions
- 2019/9 University of Toronto Fellowship - 2,000 (Canadian dollar)
 University of Toronto
 Prize / Award

| | |
|-----------------|---|
| 2018/9 | University of Toronto Fellowship - 1,800 (Canadian dollar) University of Toronto Prize / Award |
| 2017/9 - 2018/8 | University of Toronto Fellowship - 5,000 (Canadian dollar) University of Toronto Prize / Award |
| 2016/5 - 2016/8 | Pharmacology & Toxicology Undergraduate Research Opportunity Program Fellowship - 4,800 (Canadian dollar) University of Toronto Prize / Award |
| 2013/4 - 2014/8 | Gordon Gray Student Initiatives Fund - 4,200 (Canadian dollar) Queen's University at Kingston Prize / Award |
| 2012/9 - 2013/5 | Queen's University Entrance Scholarship - 2,000 (Canadian dollar) Queen's University at Kingston Prize / Award |

User Profile

Research Career Start Date: 2016/05/01

Engaged in Clinical Research?: Yes

Fields of Application: Biomedical Aspects of Human Health, Pathogenesis and Treatment of Diseases

Employment

| | |
|--------|--|
| 2022/1 | Founder, Variant Variant Live in the US, Variant is a venture-capital-backed data technology startup unlocking personalized medicine using AI, genetics, and social listening data. Variant's platform enables better treatment decisions for rare disease patients, with a particular focus on seizure disorders, and streamlines precision medicine drug development for pharma. |
|--------|--|

Affiliations

The primary affiliation is denoted by (*)

2024/7 - 2027/6 Postdoctoral Fellow, Harvard Medical School

(*) 2017/9 - 2024/6 Graduate Student, University of Toronto

Courses Taught

| | |
|----------------------------|--|
| 2019/01/01 - 2022/04/30 | Guest Lecturer, University of Toronto Course Title: NeuroSci 101 Course Topic: Introductory Neuroscience Course Level: College Number of Students: 50 Guest Lecture?: Yes |
|----------------------------|--|

| | |
|----------------------------|--|
| 2018/01/01 - 2022/04/30 | Course Instructor, University of Toronto Course Title: PCL 476, Neuropsychopharmacology II Course Topic: Pharmacology Course Level: Undergraduate Number of Students: 70 |
| 2017/09/01 - 2022/04/30 | Course Instructor, University of Toronto Course Title: PCL 475, Neuropsychopharmacology I Course Topic: Pharmacology Course Level: Undergraduate Number of Students: 70 |
| 2016/09/01 - 2017/04/30 | Laboratory Tutorial Leader, Queen's University at Kingston Course Title: Introductory Psychology Course Topic: Psychology Course Level: Undergraduate Number of Students: 60 |

Student/Postdoctoral Supervision

Bachelor's Honours [n=2]

| | |
|----------------------------------|--|
| 2019/5 - 2019/8 Co-Supervisor | Lama Abuloghod (Completed) , University of Toronto Student Degree Start Date: 2016/9 Student Degree Received Date: 2020/4 Project Description: Establishing loss and rescue of NMDA receptors in astrocytes of GluN1KD mice |
| 2019/5 - 2019/8 Co-Supervisor | Salma Geissah (Completed) , University of Toronto Student Degree Start Date: 2016/9 Student Degree Received Date: 2020/4 Project Description: Establishing loss and rescue of NMDA receptors in endothelial cells of GluN1KD mice |

Community and Volunteer Activities

| | |
|------------------|---|
| 2017/9 - 2021/12 | Content Creator, Weekday Neuroscientist Personal blog with >15,000 followers on which I reviewed new, popular, and controversial neuroscience topics with the public and other scientists to make neuroscience more accessible. |
| 2014/4 - 2014/7 | Project Student, Hoedspruit Endangered Species Centre Research and wildlife care assistance to the centre involving direct contact with large animals, including cheetahs, lions, white rhino, and blesbok. Field assistance to a Masters student (for an african wildcat project) and a wildlife veterinarian (to develop a protocol for raising orphaned baby white rhinos). |
| 2013/5 - 2013/7 | Student Volunteer, Ukutula Education Centre Volunteer research, field, and wildlife care assistant in ongoing projects involving captive-bred cheetahs. |

Committee Memberships

- 2018/9 Committee Member, Animal Care Committee, Faculty of Medicine and Pharmacy, University of Toronto Animal Care Committee
To oversee the day-to-day operation of the individual animal research facilities; to review/ approve faculty research protocol proposals; to set ethics precedents and develop novel SOPs for the use of animals in biomedical research.

Publications

Journal Articles

1. K. Intson, P. Finnie, L. Abuloghod, A. Salahpour, A.J. Ramsey. (2024). NMDA receptors in Gfap astrocytes are required for habituation learning *in vivo*. Nature Neuroscience.
Submitted,
Contribution Percentage: 81-90
Description of Contribution Role: This paper comprised my PhD thesis; I conducted most experiments and wrote the manuscript.
2. Katheron Intson, Salma Geissah, Robert McCullumsmith, Amy J. Ramsey. (2022). A role for endothelial NMDA receptors in the pathophysiology of schizophrenia. Schizophrenia Research.
First Listed Author
Published,
Refereed?: Yes
Number of Contributors: 4
Contribution Percentage: 61-70
Description of Contribution Role: This invited review was solicited for a special edition for Schizophrenia Research. I conducted the literature search, organization of topics, and wrote most of the paper.
3. Catharine A. Mielnik, Mary A. Binko, Adam J. Funk, Emily M. Johansson, , Katheron Intson, Nirun Sivananthan, Yuxiao Chen, Rehnuma Islam, Marija Milenkovic, Wendy Horsfall, Ruth A. Ross, Shreejoy Tripathy, Laurent Groc, Ali Salahpour, Robert E. McCullumsmith, Evelyn K. Lambe, Amy J. Ramsey. (2021). Consequences of NMDA receptor deficiency can be rescued in the adult brain. Molecular Psychiatry.
Co-Author
Published,
Refereed?: Yes
Number of Contributors: 17
Contribution Percentage: 0-10
Description of Contribution Role: I conducted experiments, wrote results and created Figure 2 for the paper.
4. David K. Oliver*, Katheron Intson*, Saige K. Power, Janice McNabb, Derya Sargin, & Evelyn K. Lambe. (2020). Chronic social isolation exerts opposing sex-specific consequences on serotonin neuronal excitability and behaviour. Neuropharmacology.
Co-Author
Published,
Refereed?: Yes
Number of Contributors: 6
Contribution Percentage: 21-30
Description of Contribution Role: *Denotes equal contribution. I conducted all electrophysiological experiments, analyzed the data, created figures, and co-wrote the paper.

5. Katheron Intson, Sachin A. Kumar, Amy Botta, Rachael Neckles, Connie Leung, Ali Jawaid. (2020). An independent appraisal and re-analysis of hydroxychloroquine treatment trial for COVID-19. *Swiss Medical Weekly*. 150: 1-6.
First Listed Author
Published,
Refereed?: Yes
Number of Contributors: 6
Contribution Percentage: 41-50
Description of Contribution Role: I contributed conceptualization, formal analysis, writing, review and editing, visualization, supervision, and project administration.
6. Katheron Intson, Matthijs van Eede, Rehnuma Islam, Marija Milenkovic, Yuanye Yan, Ali Salahpour, Mark Henkelman, Amy J. Ramsey. (2019). Progressive neuroanatomical changes caused by Grin1 loss-of-function mutation. *Neurobiology of Disease*. : 1-8.
First Listed Author
Published,
Refereed?: Yes
Number of Contributors: 8
Contribution Percentage: 31-40
Description of Contribution Role: I designed, conducted, and analyzed experiments and wrote the paper.
Funding Sources: Canadian Institutes of Health Research (CIHR)
7. Daniel W. Sparks, Michael K. Tian, Derya Sargin, Sridevi Venkatesan, Katheron Intson, Evelyn K. Lambe. (2017). Opposing cholinergic and serotonergic modulation of layer 6 in the prefrontal cortex. *Frontiers in Neural Circuits*. 11: 1-12.
Co-Author
Published, *Frontiers in Neural Circuitry*,
Refereed?: Yes
Number of Contributors: 6
Contribution Percentage: 11-20
Description of Contribution Role: I conducted experiments, analyzed data, and wrote a section on these results.
Funding Sources: Canadian Institutes of Health Research (CIHR)

Thesis/Dissertation

1. Astrocytic NMDA receptors are required for habituation learning in vivo. (2023). University of Toronto. Doctorate. Supervisor: Amy J. Ramsey
2. Intermittent physical stress in early adolescence alters tryptophan hydroxylase immunoreactivity profiles in the ventrolateral dorsal raphe of adult female rats. (2017). Queen's University at Kingston. Bachelor's Honours. Supervisor: Janet Menard

Reports

1. First Listed Author. Katheron Intson. (2016). The efficacy of biofeedback training as preparation for an MRI scan, and presence of motion artifacts affiliated with error responses in a mock scan setting. Queen's University at Kingston
Number of Contributors: 1
Contribution Percentage: 91-100
Description of Contribution Role: I conducted and analyzed all experiments and wrote the report.

Working Papers

1. Co-Author. (Rehnuma Islam, Katheron Intson, Marija Milenkovic, Wendy Horsfall, Catharine Mielnik, Amy J. Ramsey). (2024). Molecular Pathways responsible for NMDA receptor-mediated behavioural plasticity. Contribution Percentage: 21-30
Description of Contribution Role: As co-first author, I conducted follow-up experiments for this study and wrote the manuscript.
2. (M.T. Sullivan, K. Intson, Y. Yan, N. Wilson, D.E. Watkins-Chow, W.J. Pavan, A. Salahpour, & A.J. Ramsey). (2024). Behavioural characterization of Y647S+/- and Q536R+/- Grin1 patient variant mouse models.
Description of Contribution Role: I conducted pilot studies and initial characterization of both mouse models.

Radio and TV Programs

Unlocking Bryson's Brain. CBC Podcasts. Making a Mouse.

Number of Episodes: 8

Publisher: Canadian Broadcasting Company, Canada

Description / Contribution Value: Interviewee

Broadcasts: 2020/4CBC

Once Upon a Gene. A Rare Collection Unexpected Findings.

Publisher: Apple Podcasts,

Name: Dr. Leonard Wright, DC

Course Title: Sports-Related Concussion and Its Relationship to Recurring Musculoskeletal Injuries

Course Description: This 2-hour presentation will delve into the relationship between sports-related concussions and recurring musculoskeletal injuries. Participants will gain an in-depth understanding of how concussions can influence and contribute to the development of recurring musculoskeletal issues in athletes. The presentation will cover the pathophysiology of concussions, the pathophysiological mechanisms linking concussions to recurring injuries, and the implications for prevention and management strategies.

Learning Objectives:

- Describe the biomechanical forces involved in sports-related concussions.
- Recognize the potential pathways through which concussions can contribute to the development of recurring musculoskeletal issues.
- Understand the role of altered biomechanics, neuromuscular control, and compensatory mechanisms post-concussion.
- Understand the clinical presentation, diagnosis, and management of these recurring injuries in athletes with a history of concussions.
- Discuss strategies for preventing sports-related concussions and subsequent musculoskeletal injuries.
- Learn about rehabilitation and return-to-play protocols tailored for athletes recovering from concussions to mitigate the risk of recurring musculoskeletal issues.
- Evaluate current research findings and evidence-based practices related to the prevention, diagnosis, and management of sports-related concussions and recurring musculoskeletal injuries.
- Discuss the implications of research findings for clinical practice and policy development.

Patient Outcomes:

- Help clinicians and patients look at musculoskeletal injuries through a neurological lens and understand potential alternatives to conventional MSK rehab
- Understanding how neurological dysfunction can contribute to altered biomechanics, neuromuscular control, and compensatory mechanisms.
- Learn the treatments available to help regulate a dysregulated nervous system

Course Outline: Outline: Hour 1

0-15:

Describe the biomechanical forces involved in sports-related concussions.
Explain the primary mechanisms of injury leading to concussion in sports.

15-30:

Review research to support SRC to recurring musculoskeletal issues.
Discuss the relationship between head injury and recurring musculoskeletal injury.
Epidemiology of recurring musculoskeletal injury in sports following head injury

30-45:

Understand the role of altered biomechanics, neuromuscular control, and compensatory mechanisms post-concussion.

45-1 hour:

Recognize the potential pathways through which concussions can contribute to the occurrence of recurring musculoskeletal injury.

Hour 2

0-15:

Understanding clinic presentation, diagnosis, and management of the recurring injuries in athletes with a history of concussion.

Discuss strategies for preventing sports-related concussions resulting in subsequent musculoskeletal injuries.

15-30:

Learn about rehabilitation and return-to-play protocols tailored for athletes recovering from concussions to mitigate the risk of musculoskeletal injuries.

Evaluate current research findings and evidence-based practices related to preventing, diagnosing, and managing sports-related concussions and recurring musculoskeletal injuries.

Discuss the implications of research findings for clinical practice and policy development.

30-45:

Case Presentation to discuss how management of this might look in practice.

Future research considerations

45-1 hour:

Q&A

Leonard Wright

Doctor of Chiropractic

Contact

(940) 368-6791
Lcwright95@gmail.com

Biography

A Doctor of Chiropractic with a background in sport performance care, chiropractic, nutritional counseling, and neurological assessment. Skilled in collaborative care, biomechanical analysis, orthopedic testing for sport injury, and concussion assessment and management. Diverse experiences give me an extensive knowledge base to handle the complexities of the cases that I see at Parker Performance Institute.

Education

Doctor of Chiropractic
Parker University- Dallas, TX
09/2016- 12/2019

Master of Science: Clinical
Neuroscience
Parker University- Dallas, TX
01/2019-12/2019

Experience

January 2020 - Present

Doctor of Chiropractic • Synapse Human Performance Center

- Experience working with cognitive disorders, traumatic brain injury, vestibular balance deficiency, concussion, stroke, attention deficit disorder and other neurological disorders within an integrated healthcare facility.

August 2021- Present

Adjunct Faculty • Master of Clinical Neuroscience

- Prepare students in the master's program for clinical application of knowledge gained from academics and how to apply that knowledge towards an evidenced based care plan for a variety of neurological and musculoskeletal conditions.

Key Skills

Clinical research
Diagnostic skills
Patient management
Treatment plan development

Speaking Experience

Parker Seminars

- July 2023, Dallas, TX: Neurological Rehab Strategies for a Modern Approach to Healing
- February 2023, Las Vegas, NV: Principles of Neurorehabilitation: A Case-Based Interactive Presentation
- August 2022, Orlando, FL: Principles of Neurorehabilitation: A Case-Based Interactive Presentation

Research Experience

Lead investigator

- Wrote, designed, coordinated, and collected data for a chiropractic manipulation study.

Research assistant

Planned, modified, and executed research techniques, procedures, and tests.

Awards/Recognition

DC of the Year- 2022

Instructor: Tali Sharot, PhD

Duration: 1 hour

Course Title: Look Again: How to Notice and Change

Course Description:

We will explore how the brain generates a sense of happiness - from the importance of optimism and a sense of control to the impact of social factors - and how we can use this knowledge to induce behavioral change that makes people happier and healthier.

Even stimulating jobs, breathtaking works of art, and exciting new gadgets lose their sparkle. We desensitize to what is wonderful around us. We also stop noticing what is not-so-great: cracks in a relationship, inefficiencies in the workplace, and a culture of fraud that developed slowly. It is not that we are lazy or stupid.

Our brain evolved to respond to what is new and different, not to things that are constant or change gradually. As a result, we stop noticing what is suboptimal and fail to make changes. We also stop seeing what is good and don't feel joy. But what if we could 'dishabituate'?

Based on her new book Look Again, Sharot shares what psychology and biology tell us about why we stop noticing both the great and not-so-great things around us and how to regain sensitivity in the office, at home, online, and at the store so we can enjoy what is good and change what's not.

Learning Objectives:

The brain's ability to shut off neuro sensors to unpleasant situations, both physical and mental.

The brain's ability to process habituation influences human mental health and behavior.

Identify suboptimal choices and actions that can lower wellbeing

How your brain processes behavioral changes.

Patient Outcomes:

Behavioral changes

Learning to adapt to changes in your daily life.

Identifying habits that need to change.

Outline:

0-15 minutes

- Understanding how humans adapt and habituate can help us help our patients 0-15 become happier and healthier.
- The neurological effects of habits.

15-30 minutes

- The effects of people only looking at the bad in their lives.
- What are the neurological side effects of negative thinking?

30 to 45 minutes

- The relationship between habituation/adaptation and mental health
- The relationship between dishabituation and creativity
- How can we induce dishabituation in our practice and personal life?

45-60 minutes

- Why diversifying your life leads to a more psychologically rich life
- How the brain associates how learning is associated with joy and happiness
- Dishabituating to the bad:
- Risk – the consequences of risk habituation and how we can break it.
- How the brain works helps us guide positive behavioral change.

TALI SHAROT
Curriculum Vitae

26 Bedford Way, Room 508
London, UK WC1H0AP

t.sharot@ucl.ac.uk

Employment:

Professor of Cognitive Neuroscience, The Max Planck UCL Centre for Computational Psychiatry and Ageing Research, University College London, 2020-onwards
Professor of Cognitive Neuroscience, Department of Experimental Psychology, University College London, 2018-onwards
Wellcome Trust Senior Research Fellow, Department of Experimental Psychology, University College London, 2019-2024
Associate Professor (Reader), Department of Experimental Psychology, University College London, 2014-2018
Assistant Professor (Wellcome Trust Career Development Fellow) Department of Experimental Psychology, University College London, 2011-2017

Education & Training:

B.A., Psychology & Economics, Tel Aviv University, 1998
Ph.D., Cognitive Neuroscience, New York University, 2006.
Postdoctoral Fellow, Department of Psychology, Harvard University 2005-2006
Postdoctoral Fellow, Department of Psychology, New York University 2006-2007
Postdoctoral Fellow, Wellcome Trust Centre for Neuroimaging, University College London, 2007-2008
British Academy Postdoctoral Fellow, Wellcome Trust Centre for Neuroimaging, University College London 2008-2011

Honors, Fellowships & Prizes:

Senior Research Fellow, Wellcome Trust, 2019
Global Fellow, Ernst & Young, 2018-2022
Book Award, British Psychological Society, 2018
Early Career Award, Society for Neuroeconomics, 2016
Book Award, British Psychological Society, 2014
Fellow, Forum of European Philosophy, 2013
Best Talk Prize, Neuroeconomics Society Annual Conference, 2012
Impact Award, University College London, 2012
Grand Challenges Award, University College London, 2012
Career Development Fellow, Wellcome Trust, 2011
Conference Fund, Graduate School, University College London, 2011
Student Fellow, Okinawa Computational Neuroscience Course, 2009
Postdoctoral Fellow, British Academy, 2008
Postdoctoral Fellow, Feinberg Graduate School, Weizmann Institute of Science (declined), 2007
Cattell Dissertation Award Finalist, New York Academy of Science, 2007
Conference Grant, Royal Society, 2007
Postdoctoral Research Fellow, Margaret and Herman Sokol, 2006
Fryer Award for Dissertation Proposal, New York University, 2005

Student Fellow, Summer Institute in Cognitive Neuroscience, James S. McDonnell Foundation, 2003

Henry M. MacCracken Graduate Student Fellowship, New York University, 2002

Student Fellow, Summer Institute in Cognitive Neuroscience, James S. McDonnell Foundation, 2002

MA Scholar Honor Status, New York University, 2002

Publications:

- Sharot, T., Rollwage, M., Sunstein, C. R., & Fleming, S. (in press). Why and when beliefs change: A multi-attribute value-based decision problem. **Perspectives On Psychological Science**
- Blain B., Marks J., Czech P. & Sharot, T. (in press). Observing Others Give & Take: A Computational Account of Bystanders' Feelings and Actions. **PLOS Computational Biology**
- Charpentier, C.J., Cogliati Dezza, I., Vellani, V., Globig, L., Gädeke, M., Sharot, T. (in press). Anxiety selectively increases information-seeking in response to large changes. **Scientific Reports**
- Globig, L.K., Blain, B., & Sharot, T. (in press). When Private Optimism meets Public Despair: Dissociable effects on behavior and well-being. **Journal of Risk & Uncertainty**
- Kelly C.A. & Sharot, T. (2021) Individual differences in information-seeking. **Nature Communication**, 12, 7062.
- Blain, B., & Sharot, T. (2021). Intrinsic reward: potential cognitive and neural mechanisms. **Current Opinion in Behavioral Sciences**, 39, 113-118.
- Globig L., Witte K., Feng G. & Sharot T. (2021) Under threat weaker evidence is required to reach undesirable conclusions. **Journal of Neuroscience**, 41 (30) 6502-6510
- Bromberg-Martin E., Sharot, T. (2020). The Value of Belief. **Neuron**, 106 (4), 561-565
- Sharot, T. Sunstein C.R., (2020). How People Decide What They Want to Know. **Nature Human Behaviour**, 1-6.
- Kappes, A., Harvey, A., Lohrenz, T., Montague, R. & Sharot, T. (2020) Confirmation Bias in the Utilization of Others' Opinion Strength. **Nature Neuroscience**, 23 (1), 130-137.
- Vellani, V., de Vries, L.P., Gaule, A., Sharot, T. (2020). A selective effect of dopamine on information-seeking. **eLife**, 9, e59152.
- Ossola, P., Garrett, N., Sharot, T., Marchesi, C. (2020). Belief Updating in Bipolar Disorder Predicts Time of Recurrence. **eLife**, 9, e58891.
- Gesiarz, F., De Neve, J.E. & Sharot, T. (2020). The Motivational Cost of Inequality: Pay Gaps Reduce the Willingness to Pursue Rewards. **PLOS One**.
- Sharot, T. Is visual representation coloured by desire? (2019). **Nature Human Behaviour**, 1-2.
- Gesiarz, F., Cahill, D. P. & Sharot, T. (2019). Evidence accumulation is biased by motivation: A Computational Account. **PLOS Computational Biology**, 15(6): e1007089.
- Marks, J., Copland, E., Loh, E., Sunstein, C. R., & Sharot, T. (2019). Epistemic Spillovers: Learning others' political views reduces the ability to assess and use their expertise in nonpolitical domains. **Cognition**, 188, 74-84.
- Lazzaro S. C., Weidinger L., Cooper R., Baron-Cohen S., Moutsiana C. & Sharot, T. (2019). Social conformity in autism. **Journal of Autism and Developmental Disorders**, 49 (3), 1304-1315.
- Kappes A. & Sharot, T. (2019). The automatic nature of motivated belief updating. **Behavioural Public Policy**, 3 (1), 87-103.

- Garrett, N., González-Garzón, A., Foulkes, L., Levita, L., & Sharot, T. (2018). Updating beliefs under perceived threat. **Journal of Neuroscience**, 38 (36), 7901-7911.
- Charpentier, C., Bromberg-Martin E., Sharot, T. (2018) Valuation of knowledge and ignorance in mesolimbic reward circuitry. **Proceeding of the National Academy of Sciences**, 115 (31), E7255-E7264
- Sunstein, C.R., Bobadilla-Suarez, S., Lazzaro, S., & Sharot, T. (2017). How people update beliefs about climate change: Good news and bad news. **Cornell Law Review**, 102, 1431-1443.
- De Martino, B., Bobadilla-Suarez, S., Nouguchi, T., Sharot, T., Love, B.C. (2017). Social information is integrated into value and confidence judgments according to its reliability. **Journal of Neuroscience**, 37 (25), 6066-6074.
- Bobadilla-Suarez, S., Sunstein, C.R., Sharot, T. (2017). The intrinsic value of choice: The propensity to under-delegate in the face of potential gains and losses. **Journal of Risk and Uncertainty**, 54 (3), 187-202.
- Garrett, N. & Sharot, T. (2017) Optimistic update bias holds firm: Three tests of robustness following Shah et al., **Consciousness and Cognition**, 50:12-22.
- Garrett, N. Lazzaro, S. Ariely, D. Sharot, T. (2016). The human brain adapts to dishonesty. **Nature Neuroscience**, 19 (12), 1543-1544.
- Charpentier, C., De Neve, J.E., Li, X., Roiser, J.P. & Sharot, T. (2016) Models of affective decision-making: how do feelings predict choice? **Psychological Science**, 27 (6), 763-775.
- Charpentier, C., De Martino, B., Sim, A.L., Sharot, T. & Roiser, J.P. (2016) Emotion-induced loss aversion and striatal-amygdala coupling in low anxious individuals, **Social Cognitive and Affective Neuroscience**, 11 (4), 569-579,
- Sharot, T. & Garrett, N. (2016) Forming beliefs: Why valence matters, **Trends in Cognitive Sciences**, 20 (1), 25-33.
- Moutsiana, C., Charpentier, C., Garrett, N., Cohen, M.X. & Sharot, T. (2015) Human frontal-subcortical circuit and asymmetric belief updating, **Journal of Neuroscience**, 35(42): 14077-14085.
- Koster, R., Sharot, T., Yuan, R., De Martino, B., Norton, M.I. & Dolan, R.J. (2015) How beliefs about self-creation inflate value in the human brain, **Frontiers in Human Neuroscience**, 9:473.
- Edelson, M., Shemesh, M., Weizman, A., Yariv, S., Sharot, T. & Dudai, Y. (2014) Opposing effects of oxytocin on overt compliance and lasting changes to memory. **Neuropsychopharmacology**, 40 (4), 966.
- Garrett, N., Sharot, T., Faulkner P., Korn C. W., Roiser J. P. & Dolan R. J. (2014). Losing the rose tinted glasses: neural substrates of unbiased belief updating in depression. **Frontiers in Human Neuroscience**, 8:639.
- Edelson, M., Dudai, Y., Dolan, R.J. & Sharot, T. (2014) Brain substrates of recovery from misleading influence. **Journal of Neuroscience**, 34(23): 7744-7753.
- Charpentier, C., Moutsiana, C., Garrett, N. & Sharot, T. (2014) The Brain's Temporal Dynamics from a Collective Decision to Individual Action. **Journal of Neuroscience**, 34(17): 5816-5823.
- Garrett, N. & Sharot, T. (2014) How robust is the optimistic update bias for estimating self-risk and population base rates? **PLoS ONE**, 9(6): e98848.
- Korn, C., Sharot, T., Walter, H., Heekeren, H.R. & Dolan, R.J. (2014) Depression is related to an absence of optimistically biased belief updating about future life events. **Psychological Medicine**, 44, 579-592.

- Moutsiana, C., Garrett, N., Clarke, R.C., Lotto, R.B., Blakemore, S.J. & Sharot, T. (2013) Human development of the ability to learn from bad news. **Proceeding of the National Academy of Sciences: USA**, 110 (41), 16396–16401.
- Chowdhury, R., Sharot, T., Wolfe, T., Düz el, E. & Dolan, R.J. (2013) Optimistic update bias increases in older age. **Psychological Medicine**, 44 (9), 2003-2012.
- Sharot, T., Kanai, R., Marston, D., Korn, C., Rees, G. & Dolan, R.J. (2012). Selectively altering belief formation in the human brain. **Proceeding of the National Academy of Sciences: USA**, 109 (42), 17058-17062.
- Sharot, T., Fleming, S. M., Koster, R., Yu, X. & Dolan R. J. (2012). Is choice-induced preference change long lasting? **Psychological Science**, 23 (10), 1123-1129
- Sharot, T., Guitart-Masip M., Korn C.W, Chowdhury R., Dolan R.J. (2012). How dopamine enhances an optimism bias in humans. **Current Biology**, 22 (16), 1477-81.
- Guitart-Masip M., Chowdhury R., Sharot, T., Dayan P., Duzel E., & Dolan R. J. (2012) Action controls dopaminergic enhancement of reward representations. **Proceedings of the National Academy of Sciences: USA**, 109 (19), 7511–7516.
- Sharot, T. The optimism bias. (2012). **Current Biology**, 21 (23), 941-5.
- Sharot, T. Korn, C.W. Dolan, R. J. (2011). How unrealistic optimism is maintained in the face of reality. **Nature Neuroscience**, 14(11),1475-9.
- Edelson, M. Sharot, T. Dolan, R. J. Dudai, Y. (2011). Following the crowd: Brain substrates of long-term memory conformity. **Science**, 333 (6038):108-11.
- Sharot, T. C.M. Velasquez, Dolan, R. J. (2010) Do decisions shape preference? Evidence from blind choice. **Psychological Science**, 21 (9), 1231-5.
- Sharot, T. Shiner, T. Dolan, R. J. (2010) Experience and choice shape expected aversive outcome. **Journal of Neuroscience**, 30 (27), 9209 -15.
- Sharot, T. Shiner, T. Brown, A.C. Fan, J. Dolan, R. J. (2009) Dopamine enhances expectation of pleasure in humans. **Current Biology**, 24 (19), 2077-1080.
- Sharot, T. De Martino, B. Dolan, R (2009) How choice reveals and shapes expected hedonic reaction. **Journal of Neuroscience**, 29 (12), 3760-5.
- Phelps, E.A. Sharot, T. (2008) How (and Why) emotion enhances the subjective sense of recollection. **Current Directions in Psychological Science**, 17 (2), 147-152.
- Sharot, T. Yonelinas A.P. (2008). Differential time-dependent effects of emotion on the recollective experience and memory for contextual information. **Cognition**, 106 (1), 538 - 547.
- Sharot, T. Riccardi, M.A. Raio, C. M. Phelps, E.A. (2007) Neural mechanisms mediating optimism bias. **Nature**, 450 (7166), 102 - 105.
- Sharot, T. Martorella, E.A. Delgado, M.R. Phelps, E.A. (2007). How personal experience modulates the neural circuitry of memories of September 11. **Proceedings of the National Academy of Sciences: USA**, 1 (104), 389-394.
- Sharot, T. Delgado, M.R. Phelps, E.A. (2004). How emotion enhances the feeling of remembering. **Nature Neuroscience**, 7 (12), 1376 – 1380.
- Sharot, T. & Phelps, E. A. (2004) How emotional arousal modulates memory: disentangling the effects of attention and retention. **Cognitive Affective Behavioral Neuroscience**, 4 (3), 294-306.
- Vakil, E. Sharot, T. Markowitz, M. Aberbuch, S. Groswasser, Z. (2003) Script memory for typical and atypical actions: controls versus patients with severe closed-head injury. **Brain Injury**, 17(10):825-33.

Books

- Sharot, T. (2017) *The Influential Mind*. Henry Holt, NY, NY.

- Sharot, T. (2011) The Optimism Bias. Pantheon Books, NY, NY.
- Dolan R. Sharot, T. (Editors) (2012) The Neuroscience of Preference and Choice. Elsevier Publishing.
- Sharot, T. (2012) The Science of Optimism. TED e-books.

Research Contracts and Grants:

Funding source: Wellcome Trust
 Start Date – End Date: 10/07/19-10/07/24
 Title: Information Seeking in Health and Disease
 Role: Sole PI

Funding source: MHP Communication
 Start Date – End Date: 01/01/18-01/01/19
 Title: Collaborative Fund, Behavioural Change
 Role: Sole PI

Funding source: Telefonica
 Start Date – End Date: 08/01/17-08/01/18
 Title: Collaborative Fund, Predicting well-being from phone data
 Role: Sole PI

Funding source: The Football Players Health Study at Harvard University
 Start Date – End Date: 09/01/16-09/01/18
 Title: Optimism and depression among retired NFL Players
 Role: Sole PI

Funding source: Wellcome Trust
 Start Date – End Date: 11/01/11-11/01/17
 Title: Mechanisms underlying optimistic biases in the human brain and their breakdown in disease
 Role: Sole PI

Funding source: Center for Advanced Hindsight, Duke University
 Start Date – End Date: 11/01/15-11/01/17
 Title: Physiological and Emotional Substrates of Investment Decisions
 Role: Sole PI

Funding source: Making Connections Fund, Weizmann Institute
 Start Date – End Date: 09/01/13-09/01/15
 Title: The Relationship between Optimism and Probabilistic Decision-Making – A Computational Neuroscience Approach
 Role: Co-PI with Prof Dudai

Funding source: Radcliffe Institute for Advance Studies
 Start Date – End Date: 09/01/2013
 Title: Workshop on Public Policy and the Brain
 Role: Co-PI with Prof Sunstein

Funding source: Center for Advanced Hindsight, Duke University
Start Date – End Date: 08/01/12-08/01/15
Title: Collaborative Fund, Neural Substrates of Deception
Role: Sole PI

Funding source: The British Academy
Start Date – End Date: 09/01/08-11/01/11
Title: How emotion biases choice: the neural mechanism mediating affective forecasting errors.
Role: Sole Awardee

Funding source: Making Connections Fund, Weizmann Institute
Start Date – End Date: 09/01/09-09/01/11
Title: Neural Substrates of Memory Conformity
Role: Co-holder with Prof Dudai, Prof Dolan & Micah Edelson

External Service:

Editorial Roles

Deputy Editor, Science Advances, 2022-Onwards
Guest Reviewing editor, e-Life, 2021
Consulting Editorial Board, Cognitive Affective and Behavioural Neuroscience, 2020-2022
Editorial Board, Psychological Bulletin (APA), 2020-Onwards.
Editorial Board, Affective Science (Springer), 2019-Onwards.
Editorial Board, Psychological Science in the Public Interest (APS), 2018- Onwards.
Editorial Board, Emotion (APS), 2017- Onwards.
Associate Editor, Social Cognitive and Affective Neuroscience, 2014 – 2022.
Editorial Board, Journal of Experimental Psychology: General, 2011-2012.

Reviewer, Funding bodies: Wellcome Trust (WT), European Research Council (ERC), Economic and Social Research Council (ESRC), Templeton Foundation, National Science Foundation (NSF), Israel Science Foundation (ISF), The German-Israeli Foundation for Scientific Research and Development (GIF), Volkswagen Foundation, Medical Research Council (MRC).

Reviewer, Journals: American Economic Review, Brain Research, Behavioural Brain Research, Cognition, Cognitive Affective Behavioural Neuroscience, Cognition & Emotion, Cognitive Psychology, Cortex, Cerebral Cortex, Current Biology, Developmental Psychology, e-Life, Emotion, Frontiers in Human Neuroscience, Journal of Cognitive Neuroscience, Journal of Cognitive Psychology, Journal of Experimental Psychology: Learning Memory and Cognition, Journal of Neuroscience, Memory & Cognition, Nature Neuroscience, Nature Human Behaviour, Nature Communication, Neuron, Neuropsychologia, Neuroimage, Neuroscience Letters, Organizational Behavior and Human Decision Processes, PLOS One, PLOS Computational Biology, PNAS, Psychological Science, Psychonomic Bulletin and Review, Royal Society Open Science, Social Cognitive and Affective Neuroscience, Science.

Committee Member and Organizer:

Chair, Program Committee, Neuroeconomics Annual Meeting, 2022.
Co-Chair, Program Committee, Neuroeconomics Annual Meeting, 2021.
Program Committee, Social Affective Neuroscience Society (SANS) Annual Meeting, 2021
Abstract Review Board, Society for Affective Science, 2021
Program Committee, Social Affective Neuroscience Society (SANS) Annual Meeting, virtual 2020
Elected Board Member, Society for Neuroeconomics, 2019-2022
Advisory Board, Plantable 2020
Symposium Organizer, Chair, Cognitive Neuroscience Society Annual Meeting, Virtual, 2020.
Annual UCL Neuroscience Symposium Committee, 2018
Symposium Organizer, Cognitive Neuroscience Society Annual Meeting, San Francisco, 2019
Co-organizer, Brain Meetings, Wellcome Trust Centre for Neuroimaging, UCL 2008-2009.
2009
Program Committee, Neuroeconomics Annual Meeting, Miami, 2015.
Award Committee, Neuroeconomics Annual Meeting, Miami, 2015.
Co-Chair, Public Policy & the Human Brain, Radcliffe Institute, 2013.
Advisory Board, bLife 2011-2014

Teaching Experience:

Neuroscience of Emotion and Decision-Making (MSc). Lead Instructor, Developer & Module Convenor. UCL. Spring. 2018 – Onwards.
Principles of Cognition (MSc). Co-Module Convenor. UCL. Spring. 2016-2017.
Current Issues in Neuroscience (MSc). Guest Lecturer. UCL, 2012 – 2014.
Clinical Neuroscience (MSc). Guest Lecturer. UCL, 2010.
Introduction to Psychology (continuing education). Instructor. New York University, 2006.
Cognitive Psychology (BA). Co-Instructor, New York University, 2005.
Introduction to Psychology (BA). Teaching Assistant. New York University, 2000-2004.
Lab in Clinical Psychology (BA). Teaching Assistant. New York University, 2000-2004.
Physiological Psychology (graduate level). Teaching Assistant. New York University, 2000-2004.

Invited Presentations (partial list):

2021

Max Planck Institute for Biological Cybernetics Seminar Series, Germany
Marlene Porsche Graduate School of Neuroeconomics Annual Symposium, University of Zurich, Switzerland
Institute of Psychology Seminar Series, Hamburg University, Germany
NeuroPsychoEconomics Conference
Barcelona Biomedical Research Park, Spain
London Business School, London, UK
Haifa Social Science Conference, Haifa University, Israel
UK Delegation to NATO
Department of Cognitive Science, Central European University, Budapest
Department of Neurobiology, Weizmann Institute of Science, Israel

Wellcome Trust Center for Neuroimaging, UCL, London
Neural Dynamics Forum Seminar Series, Bristol University, UK

2020

NATO, WeAreNATO conference
Virtual event on the role of behavioural science in a post-COVID world, London School of Economics
Society for Neuroeconomics, Panel Chair
Cambridge Neurological Society, Cambridge University, Virtual
Critical Thinking Conference, The Czech Republic
ChangeMakers Speaker Series, University College London, UK
World Congress on Controversies in Neurology, London, UK
UPENN CHIBE Behavioral Science and Health Symposium, University of Pennsylvania,
Zangwill Club Seminar, Cambridge University, UK
Department of Psychology, Royal Holloway, UK
London Business Forum, Wellcome Collection, London, UK
Cognitive Neuroscience Society Annual Conference
On Health Tech, Virtual Meeting
Cognitive Economics Society Annual Meeting, Virtual Meeting
The Idries Shah Foundation, Virtual
NeuroPsychoEconomics meeting, Amsterdam (cancelled, COVID-19)
Cognitive Foundations of Economic Choice, Amsterdam (cancelled, COVID-19)
Summer School on Social Cognition, Aegina, Greece (cancelled, COVID-19)
Curiosity, Creativity and Complexity conference, Columbia University, US (cancelled, COVID-19)

2019

Computational Neuroscience Symposium, NIH
MindCORE seminar series, University of Pennsylvania
Society for the Biology of Decision-Making Annual Meeting, Oxford University
Düsseldorf Symposium on Decision Neuroscience, Düsseldorf, Germany
Summer School in Social Neuroscience & Neuroeconomics, Duke University
Society for Affective Science Annual Meeting, Boston
Centre for Cognitive Neuroimaging, Donders Institute, Radboud University Nijmegen, Netherlands
Society for Simulations in Healthcare, Austin Texas
Behavioural Exchange Conference, London
Bocconi University, Milan, Italy
McGovern Institute, MIT, Boston
The Watermark Conference for Women, Silicon Valley, California
10th Annual Neuroscience Symposium, University College London
Healthcare Analytics Summit, Salt Lake City

2018

The European Parliament, Basel, Belgium
Harvard Kennedy School, Boston
Sloan Business School, MIT, Boston
The Holberg Prize Symposium, Bergen, Norway
Society for Affective Science Annual Meeting, Los Angeles
American Psychological Association Annual Meeting, San Francisco

Computational & Cognitive Social Neuroscience Workshop, Ecole Normale Superieure, Paris
Kellogg School of Management, Northwestern University, Illinois
Belief Default Symposium, Hamline University, St. Paul, MN
Knight Science Program, MIT, Boston
Department of Psychology, Roehampton, London, UK
Department of Psychology, University of East Anglia, Norwich, UK
Health System Retreat, University of Utah, Utah

2017

World Economic Forum, Davos, Switzerland
Harvard Business Review, Boston
Centre for Behavioural Economics and Decision Research, Cornell University, USA
Belief-Based Utility Conference, Carnegie Mellon, USA
Society for Neuroscience Satellite of the Annual Meeting of the International Neuroethics Society, Washington DC
Institute of Cognitive Neuroscience Seminar Series, UCL
Hope and Optimism Festival, LA
Psychology Department, City University, London, UK
University of Sussex, Neuroimaging Seminar, UK
Seattle Town Hall, Seattle
The Common Wealth Club, San Francisco
Chicago Idea Week, Chicago
Google, Chicago
Google, Mountain View
Harvard Book Store, Cambridge, MA
Huxley Summit, Royal Institution, London

2016

The Michael S. Goodman Memorial Lecture, Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, USA
Warwick Summer School in Economics, Warwick, UK
Psychology and Neuroscience Applications Society, Psychology Department, Oxford University
Psychology Department, Cambridge University
Department of Economics and the Laboratory for Social and Neural Systems Research, University of Zurich, Switzerland
Drawing Links between Happiness, Health, and Self-regulation Workshop, University of Zurich, Switzerland
Bocconi University, Milan, Italy
Workshop on Decision Neuroscience in Humans, Hanse-Wissenschaftskolleg, Germany
Pontificia Universidad Javeriana, Bogota, Columbia
International Conference and Annual Meeting (ICAM) of Association to Advance Collegiate Schools of Business (AACSB), Boston, USA
Optimism Workshop, London
Cognitive Neuroscience Society Annual Meeting, Career Panel, NYC
Association to Advance Collegiate Schools of Business (AACSB), Boston MA

2015 (maternity leave)

Sloan Scholl of Management, Marketing Group, MIT, Boston, USA
Social and Affective Neuroscience Society Annual Meeting, Boston, USA

Harvard Social Psychology Seminar, Harvard University, Boston, USA
Chautauqua Lecture, Eastern Kentucky University, Kentucky, USA
Book Prize Talk, British Psychological Society Annual Meeting, Liverpool, UK

2014

Judgment and Decision MegaLab, Harvard Kennedy School, Harvard University, Boston
BrainLunch, Brain and cognitive Sciences Department, MIT, Boston
McLean Imagining Center, Mclean Hospital, Harvard Medical School, Boston
Neurobiology lab, Mclean Hospital, Harvard Medical School, Boston
Center for Brain Health, The University of Texas at Dallas
Department of Psychology, Goldsmith University of London, London
Wired Health, London
Imagining the future of medicine, Royal Albert Hall, London
Biological Psychiatry Annual Conference, NYC
American Psychological Association Annual Conference, San Francisco
TEDx Cambridge, MA

2013 (maternity leave)

Grand Rounds, Mclean Hospital, Harvard Medical School, Boston
Public Policy & the Brain workshop, Radcliffe Institute for Advance Studies, Boston
Interdisciplinary Center for Economic Science, George Mason University
Department of Cognitive Perceptual and Brain Sciences, CPB Seminar Series UCL
Annual Interdisciplinary Symposium on Decision Neuroscience, Philadelphia
Behavioral and decision seminar University of Warwick
Cognition and Brain Sciences Unit Weekly Seminar, Cambridge University

2012

Neuroeconomic Society Annual Conference, Miami, Florida
Second Symposium on Biology of Decision-Making, Paris, France
Department of Public Policy, University College London, London
Well-Being Seminar Series, London School of Economics, London
The Royal Society of Arts, London
Ciudad De Las Ideas, Puebla, Mexico
Association of Business Psychologists, London, UK
Cheltenham Science Festival, Cheltenham
Edinburgh International Science Festival, Edinburgh, Scotland
Skoll World Forum, Oxford
The School of Life, London
TED Annual Conference, Long Beach, California, USA
TEDX Observer, London
TEDX Hackney, London
BSA and Science London, London
Salon London, Foyles, London
Cambridge Wordfest, Cambridge
Bristol festival of ideas, Bristol,
The Circle of European Communicators, Germany
South Bank Center, London

2011

Brain Meeting Series, Wellcome Trust Center, University College London
Discovery Leadership Conference, Johannesburg, South Africa
Seattle Science Lectures with Pacific Science Center, Seattle Town Hall

Psychology Department, LJDM Talk Series, University College London
Psychology Department, Columbia University
Social Psychology Lab, New York University
Writers and Readers Series, Brookline Booksmith, Brookline
Oregon Health and Science University and Powell Books Talk Series, Portland
On stage discussion, South Bank Center, London

2010

Weizmann Institute for Science, Human Mind and Brain lecture series, Israel
Swiss Centre for Affective Sciences, Geneva, Switzerland
Institute for Empirical Research in Economics, University of Zurich, Switzerland
Psychology Department, Reading University
The MRC Cognition and Brain Sciences Unit, Cambridge University
Packed Lunch Series, Wellcome Trust, London
Adam Super Centre for Brain Studies, Tel Aviv University
Goodenough College, London
Society for Personality and Social Psychology Annual Meeting, San Antonio
Neuroscience and Psychiatry Symposium, Lausanne, Switzerland

2009

fMRIB seminar series, Oxford University
King's College, London Institute of Psychiatry
Neuroeconomics Seminar, New York University
Cognitive Neuroscience Annual Meeting, San Francisco
Alpine Brain Imaging Meeting, Switzerland

2008

Psychology Department, Essex University
Brain Meeting Series, Wellcome Trust Center, University College London
Society for Neuroeconomics Annual Meeting, Park City Utah
Society for Neuroscience Annual Meeting, Washington DC
Alpine Brain Imaging Meeting, Switzerland

2007

Memory in Brain Lecture Series, New York University
Neuroscience of Cognitive Control Laboratory, Princeton University
Emotion Club, Wellcome Trust Center, University College London
Social and Affective Neuroscience Laboratory, Rutgers University
Gordon Research Conference, Amygdala in Health & Disease, Bates College
Alpine Brain Imaging Meeting, Switzerland
Society for Neuroscience Annual Meeting, San Diego

2006

Behavioral Neuroscience Laboratory, MIT
MartinoSCAN series, Martinos Center, Massachusetts General Hospital
Brown Bag series, Psychology Department, University of California, Davis
Memory Lab talk series, Department of Psychology, Harvard University
Neurobiology Department, Weizman Institute, Israel
Psychology Department, Ben Gurion University, Israel

2005

Psychology Department, Stanford University
Stanford Center for Innovation in Learning, Stanford University
Brown Bag series, Psychology Department, New York University
Cognitive Social Neuroscience Lab, Psychology Department, Columbia University

2004

fMRI Users' Group series, Center for Brain Imaging, New York University
Society for Neuroscience Annual Meeting, San Diego

Ph.D. Students Supervised:

Garrett, Neil, 2016. Currently an Assistant Professor at the University of East Anglia.
Charpentier, Caroline, 2016. Currently a Wellcome Trust postdoctoral fellow at Caltech.
Sebastian Bobadilla Suarez, 2018. Currently a postdoctoral fellow at UCL.
Gesiarz, Filip, 2020. Currently at the UK's Behavioural Insight Team
Kelly, Christopher, in progress.
Globig, Laura, in progress.
Vellani, Valentina, in progress.
Sara Zehng, in progress

Postdoctoral Researchers Supervised:

Moutsiana, Christina, 2011-2015, currently Associate Professor, Westminster University.
Kappes, Andreas, 2012-2014, currently Assistant Professor, City, London University.
Kaustubh Patil, 2013-2014, currently Research Fellow, Research Center Juelic.
Cahill, Donal, 2015-2017, currently at Google, Mountain View.
Loh, Elinor, 2015-2017, currently at Facebook, London, UK.
Lazzaro, Stephanie, currently a Lecturer at Yale University.
Cogliati Dezza, Irene, in progress.
Moshe Glickman, in progress
Blain, Bastien, in progress.

PhD Examiner:

Trudel, Nadescha, Oxford University, UK, 2021
Rollwage, Max, University College London, UK, 2020
Goh, Ariel Xiao-An, Monash University, Australia 2020
van Baar, Jeroen, Donders Institute, Radboud University, Nijmegen, Holland, 2019.
Samara-Colvin, Duncan, Psychology Department, Goldsmith, University of London, UK, 2019.
Voigt, Katharina, Melbourne School of Psychological Sciences, The University of Melbourne, Australia, 2018.

Internal Service:

REF 2021 Internal Reviewer, Experimental Psychology, UCL 2020
Committee member, Career Development, Equality and Diversity (CDED). Division of Psychology and Language Science, UCL, 2019 – Onwards.
Program Committee, Annual Neuroscience Symposium, UCL, 2018.
Award Committee, Early Career Prize in Neuroscience, UCL, 2018.
Mentor, The World of Work Mentoring Scheme, Psychology and Language Sciences, UCL, 2017-2019.
Founder & Organizer, Career Development Talk Series for Early Career Researchers, Faculty of Brain Sciences, UCL, 2017.
Personal Tutor, Natural Sciences (BSc), UCL, 2016 – Onwards.
Personal Tutor, Psychology (MSc), UCL, 2016 – Onwards.
Committee member, Communicating Climate Change, UCL, 2012.
Founder & Organizer, Affective Brain Lab Online Talk Series, Division of Psychology &

Language Sciences, UCL, 2012-Onwards.

Essays

- Sharot, T. New Books on the Brain and What It Can and Can't Do. (2021) **The New York Times**
- Sharot, T. To quell misinformation, use carrots — not just sticks (2021) **Nature**
- Sharot, T. & Kappes, A . (2019). Here's what happens in the brain when we disagree **The Conversation**.
- Sharot, T. Sunstein, C.R. (2018). Would you go to a Republican doctor? **The New York Times**.
- Sharot, T. (2018). Why stressed minds are more decisive **BBC**.
- Sharot, T. (2017). Why people can't agree on basic facts. **Time Magazine**.
- Sharot, T. (2017) Want to change minds? Try this. **CNN**.
- Sharot, T. (2017) Why facts don't matter? **CNN**.
- Sharot, T. (2017). How our desires shape our beliefs. **The Guardian**.
- Sharot T. (2017) What motivates employees more: rewards or punishments? **Harvard Business Review**.
- Garrett, N. & Sharot, T. (2016) Why being dishonest is a slippery slope. **The Conversation**.
- Sharot, T. & Sunstein, C. (2016) Why facts don't unify us. **The New York Times**.
- Kappes, A. & Sharot, T. (2015) Optimism and entrepreneurship – a double edged sword. **Nesta**.
- Sharot, T. (2012) Optimism bias: Why the young and the old tend to look on the bright side. **The Washington Post**.
- Sharot, T. (2012) Viewpoint: How happiness changes with age. **BBC**.
- Sharot, T. (2012). Why we fool ourselves into optimism. **CNN**.
- Sharot, T. (2012). The optimism bias. **The Guardian**.
- Sharot, T. (2011) The optimism bias. **Time Magazine** (*cover story*).
- Sharot, T. (2011) Major delusions: Why college graduates are irrationally optimistic. **The New York Times**.

INDUSTRY & GOVERNMENT CONSULTANCY

- UK Government/ Kantar, 2021
- PepsiCo, 2021
- Plantable, 2020
- TUI, 2019
- Ernst & Young, 2018-to date
- MHP Communications, 2018
- Life is Good, 2018
- Bank of America, 2017
- Telefonica, 2017
- PepsiCo, 2017
- Prudential, 2015
- Nesta, 2013

Speaker Name: Richard Harris

Course Title: Myth Busters: Neurology Edition

Course Description: False information spreads faster than facts, and one of the negatives of living in the social media era is that everyone is given a microphone. It's up to us, evidence-based providers, to put these myths to bed for good! This course covers some of the prevalent myths about brain health and busts them to pieces.

Learning Objective:

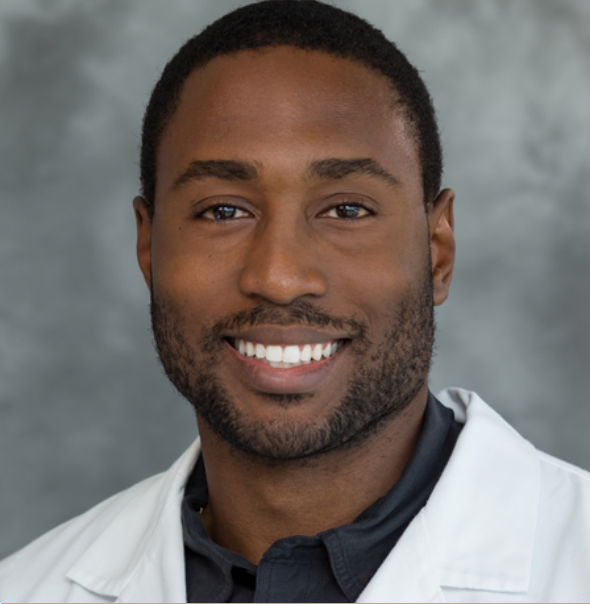
- Discuss the effects of alcohol on sleep, brain health and heart health
- Review the literature on whether sugar addiction exists
- Discuss "Nootropics" & what supplements have human evidence that supports improved cognition in healthy individuals

Patient Outcomes:

- Help patients and clinicians be able to filter better what is and is not misinformation
- Help individuals improve their habits and behaviors for a healthier life
- Help individuals not be afraid of foods that can fit into a healthy diet plan
- Help individuals avoid supplements that are not evidence-based

Course Outline:

1. Alcohol-based myths 0-15 minutes A. Moderate alcohol intake is healthy
 - Discuss in the context of brain health and heart health
- B. Alcohol helps me fall asleep 2. Sugar is addicting 15-30 min
 - A. Define addiction criteria
 - B. Review evidence disproving sugar addiction
3. Nootropics 30-45 min A. Prioritize lifestyle recommendations first B. Discuss supplements that boost cognition in healthy adults



Hello, my name is

RICHARD HARRIS

MD, PHARM D, MBA

CLINICAL EXPERIENCE

Kelsey - Seybold Clinic/Village MD - Houston, Texas

Internal Medicine Physician

July 2016 - May 2018 & June 2021 - September 2022 (KS)

September 2021 - April 2023

- Providing primary care services to adults 18 and older

TeamHealth/Memorial Hermann Medical Group - Houston, Texas

Part-time Hospitalist

June 2018 - Feb 2021

- Provided inpatient care to med/surg, ICU, & MICU patients

The University of Texas M.D. Anderson Cancer Center - Houston, Texas

Inpatient Pharmacist

July 2008 - August 2009, June 2010 - August 2011

- Mixing and dispensing medications prescribed by providers

EDUCATION

The University of Houston - Houston, Texas

Masters of Business Administration - Global Leadership

August 2018 - May 2020

The University of Texas Medical Branch - Galveston, Texas

Internal Medicine Residency

June 2013 - June 2016

McGovern School of Medicine - Houston, Texas

Doctor of Medicine

August 2008 - May 2013

The University of Texas at Austin - Austin, Texas

Doctor of Pharmacy

August 2001 - May 2008

LEADERSHIP

Parker University Board of Trustees

Member Academic Committee

Nov 2021 - Current

- Supports the executive team with oversight of high level strategies for the university

Life and Breath Foundation

Board of Directors & Clinical Advisory Board

July 2020 - Current

- Supporting patients and their families with sarcoidosis

West Houston Leadership Institute

Lifetime Member

Jan 2018 - Current

- Community leadership organization focused on civic engagement

ABOUT ME

I have inpatient and outpatient pharmacy, internal medicine, and consulting experience. I have recently added experience in CDI and hospital revenue cycle management.

MY CONTACT INFORMATION

Cell:

(512) 913-1401

Email:

rharris701@gmail.com

Address:

500 Crawford St #647
Houston, Texas 77002

Instructor Name: Marc Milstein
Course Title: Age-Proof Your Brain

Course Description:

There is much more to keeping your brain in tip-top shape and lowering your risk for dementia than crossword puzzles, brain games, and Sudoku. But the statistics are staggering. Forty-seven million people have dementia worldwide, and that number is projected to double in the next 20 years. However, it doesn't have to be that way. We—not our genes—can have control over our cognitive destiny. Significant and just-published studies point us to a compelling conclusion and powerful message: Serious mental decline is not an inevitable part of aging. Your short and long-term brain health is in your hands, and the risk of dementia can be lowered by 60% if the proper actionable steps are taken now.

Learning Objectives:

1. Here are some simple tips to do every day that supercharge your memory and productivity and lower the risk for dementia and Alzheimer's.
2. Quick and actionable steps you can do every morning to help you get energy-boosting sleep.
3. Which surprising foods boost memory and are the one sneaky ingredient in food that can raise the risk of dementia by 50%?
4. The typical and often hidden health issues significantly raise the risk of developing Alzheimer's and dementia decades before symptoms develop. Learn to look for the subtle signs before these issues develop and how to treat them.
5. The often-overlooked factors that accelerate the aging of your brain and how to avoid these traps.
6. What is real and hype in the brain health world?

FYI: A LOT of products are sold that make promises that are nothing more than a waste of time and money.

Course Outline

- 0-15 Introduce the concept there is more control over our daily and long-term brain health than we ever thought.
- 15-30 Why sleep is essential and how to improve sleep
- 30- 45 How to manage stress
- 45-60 Gut-Brain Connection and Diet and Underlying Conditions that impact brain health

Curriculum Vitae
Marc Milstein, Ph.D.
7660 Fay Ave
La Jolla, CA 92037
310-435-3571
www.drmarcmilstein.com
info@drmarcmilstein.com

Education

Ph.D., Biological Chemistry 2001- 2007
University of California, Los Angeles.
Dissertation Topic: *RIN1 is a breast tumor suppressor and a component of a breast tumor suppressor locus (B3GNT1-BRMS1-RIN1).*

**Our lab also studied the involvement of RIN1 in learning and memory in the hippocampus.*

B.S., Molecular, Cell and Developmental Biology June 2000
University of California, Los Angeles.

Book

The Age-Proof Brain (BenBella/Penguin Random House Distribution) November 2022
Nominated for the Next Big Idea Award for Best Non-Fiction work
#1 Amazon Best Seller in several categories including Aging, Longevity and Neuroscience.

Dr. Milstein Education 2013-Present

Dr. Milstein Education provides updates and understanding on cutting edge science research to medical doctors, therapists and the general public. Over 100 lectures are given a year.

Topics covered include the latest neuroscience, genetics and molecular biology research.

A Sample of Recent Lectures Given:

Dementia: Understanding and Lowering Risk:

Providence Hospital Tarzana

*provided CME credit.

Understanding Anger In The Brain

California Association of Anger Management Providers

*provided continuing education credit through the Board of Behavioral Sciences.

Neuroscience of Addiction

The Wagner Program for paraprofessional counseling.

*provided continuing education credits

Alzheimer's: Brain Pathology, Latest Research and Preventative Measures

Loyola Marymount University – Guest Lecturer for pre-med students in the class of Dr. Michael Levi.

The Brain Science of Stress, Addiction and Mindfulness.

Lecture given through Dr. Milstein Education's private series.

*Continuing education credits given through Board of Behavioral Sciences.

Latest Neuroscience Insights Into Sleep.

Ventura Hospital Grand Rounds

Teaching Experience:

Instructor

2012-Present

UCLA

- Created curriculum and present a weekly two hour science lectures.

Lecturer

Winter 2013 - Present

Skirball Cultural Center

- Created curriculum and present a weekly science lecture.
- Topics include molecular biology, neuroscience, immunology

Lecturer

Spring 2013 - Present

American Jewish University

- Presenting a new six week lecture series I created, entitled "Your Amazing Brain."
- Lectures highlight the latest research in neuroscience.

Lecturer

March 2014

UCLA's Town and Gown

Guest Lecturer

March 2013

California Science Center

- Invited to present a lecture on at the "Lunch & Learn" series.
- Lecture topic: The latest in learning and memory and sleep research.

Graduate Teaching Assistant

2003-2005

UCLA, Cellular Biology.

- Responsibilities included teaching a weekly discussion section, preparing lecture presentations, as well as writing and grading exams.

Research Experience

- Learning and Memory Researcher,** 2013
Laboratory of Dr. Jesse Rissman, Department of Cognitive Psychology,
University of California, Los Angeles, CA.
- Memory research using the techniques of fMRI and DTI.
- Breast Cancer Researcher,** 2002-2007
Laboratory of Dr. John Colicelli, Department of Biological Chemistry,
University of California, Los Angeles, California.
- Graduate Student Researcher,** 2001
UCLA Access Rotations. Rotated in the laboratories of Dr. Fuyu Tamanoi, Department of
Microbiology, Immunology and Molecular Genetics, UCLA and Dr. Steven Clarke,
Department of Chemistry and Biochemistry, UCLA.
- Undergraduate Researcher,** Laboratory of Dr. Jeannie Perry, 1997-2000
UCLA- DOE Institute for Proteomics and Genomics.
- Undergraduate Researcher,** Virology Laboratory of Dr. Harumi Kasamatsu, 1997-2000
Department of Molecular, Cell and Developmental Biology. UCLA.
- High School Researcher,** Genetics Laboratory of Dr. Michael McKeown, 1992-1995
The Salk Institute, La Jolla, California.

Research Fellowships:

- California Breast Cancer Research Program (CBCRP) 2005-2007
Dissertation Award Fellowship.

Publications:

Milstein M, Mooser C.K., Malhorta G, Goodglick L, Dry S, Colicelli J. RIN1 is a Breast Tumor Suppressor Gene. *Cancer Research*. 2007 Dec 15; 67 (24):11510-6.

Hu H, **Milstein M,** Bliss J.M., Thai M, Malhorta G, Colicelli J. Integration of TGF and RAS Signalling Silences a RAB5 GEF and Enhances Growth Factor-Directed Cell Migration. *Mol Cell Biol*. 2008 March; 28(5):1573-1583.

Finley KD, Taylor BJ, **Milstein M,** McKeown M. dissatisfaction, a gene involved in sex-specific behavior and neural development of *Drosophila melanogaster*. *Proc Natl Acad Sci U S A*. 1997 Feb 4; 94(3):913-8.

Westphal, A.J., Reggente, N., Ito, K., Fortuna, W.H., Nawabi, Y., **Milstein, M.**, & Rissman, J. Characterizing common and dissociable involvement of medial temporal lobe regions during episodic source memory retrieval and analogical reasoning. Published Abstract at Society of Neuroscience. 2013.

Presentations:

Multiple Gene Silencing Mechanisms at a Breast Tumor Suppressor Locus. Oral presentation at the Jonsson Cancer Center Research Conference, Molecular Biology Institute, UCLA. Spring 2005.

Evaluating the Role of the RIN1 Gene in Breast Cancer. Poster Presentation at the California Breast Cancer Research Program Symposium. Sacramento, California. Fall 2005.

Tumor Suppressor Function of RIN1. Oral presentation at the UCLA Biological Chemistry Retreat. Spring 2006.

Evaluating the Causative Role of RIN1 in Gene Silencing in Breast Cancer. Poster Presentation at the EMBO Breast Cancer Research Conference. Dublin, Ireland. Summer 2006.

Other Professional Work Experience & Activities:

Co-created and developed the educational enrichment program. 2007-Present
“Brain Boosters Education” a fast growing, well-respected educational enrichment program currently running in schools throughout Los Angeles.

Medical Research Reviewer 2011-2012

- Conducted and wrote research and literature reviews on the role of hormones in infertility for Cenigent Medical Group.

Judge at the California Science Fair 2013