CURRICULUM VITAE

Christopher M. Ciarleglio, PH.D.

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EDUCATION

2009 **Ph.D.,** Neuroscience Graduate Program | Douglas G. McMahon, Ph.D.
Vanderbilt University, Nashville, Tennessee

2004 **B.A.** in Biology (Minor in Ancient History) | Kathleen K. Siwicki, Ph.D. (William Turpin, Ph.D.)
Swarthmore College, Swarthmore, Pennsylvania

2000 **Holy Cross High School**, Waterbury, Connecticut

PROFESSIONAL HISTORY

2022-present **Science Teacher** | **Director of the Science Academy**
Holy Cross High School, Waterbury, Connecticut

2017-present **Instructor (summers)**
Discover Hopkins Program, Johns Hopkins University, Baltimore, Maryland

2020-present **Founder, Managing Member**
SynapticPub, LLC, Waterbury, CT

2019-2022 **Chair of Science | Director of the *Albertus Magnus Institute* (Head Coach |** Varsity Golf**)**
Morris Catholic High School, Denville, New Jersey

2016-2019 **Science Teacher (Assistant Coach |** JV Football and JV Baseball**)**
Gilman School, Baltimore, Maryland

2015-2016 **Science Teacher (Assistant Coach |** 3rds Coed Hockey**)**
The Frederick Gunn School (*formerly* **The Gunnery**), Washington, Connecticut

2013-2017 **Instructor (summers)**
Summer@Brown Pre-College Program, Brown University, Providence, Rhode Island

2011-2015 **Postdoctoral Research Fellow** | Carlos D. Aizenman, Ph.D.
Brown University, Providence, Rhode Island

2012 **Lecturer,** Department of History, Philosophy, and Social Sciences
Rhode Island School of Design, Providence, Rhode Island

2009-2011 **Postdoctoral Research Fellow** | Marshall L. Summar, M.D. (*moved*); Douglas G. McMahon, Ph.D.
Vanderbilt University, Nashville, Tennessee

2010-2011 **Assistant Director for Outreach & Education,** Vanderbilt Brain Institute
Vanderbilt University, Nashville, Tennessee

2010-2011 **Program Director,** ARRA Supplement, Vanderbilt Conte Center for Neuroscience Research
Vanderbilt University, Nashville, Tennessee

FUNDING & FELLOWSHIPS

2013 Sidney A. Fox and Dorothea Doctors Fox Postdoctoral Fellow for Vision Research
2012-2013 NIH T32 Kirschstein-NRSA Institutional Postdoctoral Training Grant (MH019118-19)
2010 Vanderbilt Institute for Clinical and Translational Research (VICTR) Resource Grant, $9,900
2009-2010 NIH T32 Kirschstein-NRSA Institutional Postdoctoral Training Grant (MH075883)
2007-2009 NIH/NIMH F31 Kirschstein-NRSA *Individual* Predoctoral Training Grant (MH080547)
2005-2007 NIH T32 Kirschstein-NRSA Institutional Predoctoral Training Grant (MH064913)

EMPLOYMENT HISTORY

Science Teacher, Holy Cross High School, Waterbury, CT. 8/2022-present. Taught AP Biology, Honors Biology. *Also* **Director of the Science Academy (Est. 2024).**

Chair of the Science Department, Morris Catholic High School, Denville, NJ. 8/2019-7/2022. *Taught AP Biology, Honors Biology, Genetics, Neurobiology. Also* **Director of the Advanced Science Academy (*Albertus Magnus Institute*)**.

Science Teacher, Gilman School, Baltimore, MD. 8/2016-7/2019. *Taught AP Biology, Honors Biology, Neurobiology. Coached JV Football and JV Baseball.*

Science Teacher, The Gunnery, Washington, CT. 8/2015-7/2016. *Taught AP Biology, Honors Biology, General Biology. Coached Highlander (3rds) Hockey.*

Tutor, DBA Tutor Doctor in Rhode Island. 8/2011 - 12/2013.

Adjunct Lecturer, Department of History, Philosophy, and Social Sciences, Rhode Island School of Design, Providence, RI, 2012. *Directed and taught a course on Human Physiology, and directed independent studies.*

Assistant Director of the Vanderbilt Brain Institute, Vanderbilt University, Nashville, TN, 2010-2011. *Served in an administrative and logistical capacity to assist in the fulfillment of the Vanderbilt Brain Institute's (VBI) mission; served under the Director of the VBI, and supplemented and complemented the Director's role.*

Program Director, American Recovery and Reinvestment Act Supplement to the Vanderbilt Silvio O. Conte Center for Neuroscience Research, Nashville, TN, 2010-2011. *Served as the chief coordinator for the design and construction of a state-of-the-art neuroscience exhibit in the Vanderbilt University Medical Center at One Hundred Oaks in Nashville, TN.*

Assistant Commissioner, Central Connecticut Baseball Umpires Association, Waterbury, CT, April – September, 2003 and 2004. *Responsible for coordinating the efforts of over 50 baseball umpires for leagues ages 9-30 years, and keeping track of Association dues and scheduling.*

Baseball Umpire, Central Connecticut Baseball Umpires Association, Waterbury, CT, 1999-2004.

Anthem Rewards Project Coordinator, Anthem Blue Cross and Blue Shield of CT, Wallingford, CT, May-August, 2004. *Responsible for the management of a multi-million dollar initiative called "Anthem Rewards," which was a program to reward people for healthy behaviors and lifestyle. This consisted of coordinating the program marketing team, tracking reward stock, the creation of a reward and recipient database.*

Nature Instructor, Holiday Hill Day Camp, Cheshire, CT, June – August, 2003. *Responsible for campers' science education with special emphasis on natural and conservation biology. This consisted of daily activities around the environment of the camp, and teaching an appreciation for nature.*

Counselor, Holiday Hill Day Camp, Cheshire, CT, June – August, 2001 and 2002. *Responsible for a single group of campers all summer. This consisted of keeping the group on time for activities and the overall success of their experience. *Fowler Counselor of the Year Award* recipient in 2001.*

Maintenance Staff Member, Holy Cross High School, Waterbury, CT, Summer 1997 and 1998.

AREAS OF INTEREST & SCHOLARSHIP

Adolescent Education/Learning, Developmental Neurobiology, Neurophysiology, Molecular Biology, Synaptic and Homeostatic Plasticity, Circadian Rhythms, Epigenetics, Seasonality, Behavioral Neuroscience, Animal Models (Mouse, Hamster, Frog)

DISSERTATION

2009 *Neural Circuitry, Behavioral Correlates and Genetic Organization of the Mammalian Circadian Clock*

PEER-REVIEWED PUBLICATIONS

† *indicates undergraduate author*

2016 S.Q. Shi, M.J. White, H.M. Borsetti, J.S. Pendergast, A. Hida, **C.M. Ciarleglio**, P. de Verteuil, A.G. Cadar, C. Cala†, D.G. McMahon, R.C. Shelton, S.M. Williams, C.H. Johnson (2015). Molecular Analyses of Circadian Gene Variants Reveal Sex-dependent Links Between Depression and Clocks. *Translational Psychiatry*. **6**:e748. PMC4872462.

2016 Z. Liu, **C.M. Ciarleglio**, A.S. Hamodi, C.D. Aizenman, and K.G. Pratt (2015). A population of gap junction coupled neurons drives recurrent network activity in a developing visual circuit. *J. Neurophys.* 10.1152/jn.01046.2015. PMC4808126.

2015 **C.M. Ciarleglio**, A.S. Khakhálin, A.F. Wang†, A.C. Constantino†, S.P. Yip†, and C.D. Aizenman (2015). Multivariate analysis of electrophysiological diversity of Xenopus visual neurons during development and plasticity. *eLife*. 10.7554/eLife.14282. PMC4749560.

2014 **C.M. Ciarleglio,** H.E.S. Resuehr, J.C. Axley†, E. Deneris and D.G. McMahon (2014). *Pet-1* deficiency alters the circadian clock and its temporal organization of behavior. *PLoS One*. **9**(5): e97412. PMID: 24831114; PMCID: PMC4022518.

2011 **C.M. Ciarleglio,** H.E.S. Resuehr and D.G. McMahon (2011). Interactions of the serotonin and circadian systems: Nature and nurture in rhythms and blues. *Neuroscience*. **197:** 8-16. PMID: 21963350. **Cover story with design by **CMC**.*

2011 K.L. Gamble, A.A. Motsinger-Reif, A. Hida, H.M. Borsetti, S.V. Servick, **C.M. Ciarleglio**, S. Robbins, J. Hicks, K. Carver, N. Hamilton, N. Wells, M.L. Summar, D.G. McMahon and C.H. Johnson (2011). Shift work in nurses: Contribution of phenotypes and genotypes to adaptation. *PLoS One*. **6**(4): e18395. PMCID: PMC3076422

2011 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss†, K.L. Gamble and D.G. McMahon (2011). Perinatal photoperiod imprints the circadian clock. *Nat. Neurosci.* **14**(1): 25-27. PMCID: PMC3058292

2009 K.L. Gamble and **C.M. Ciarleglio** (2009). Ryanodine receptors are regulated by the circadian clock and implicated in gating photic entrainment." *J. Neuroscience.* **29**(38): 11717-9. NIHMS: 155913.

2009 **C.M. Ciarleglio**, K.L. Gamble, J.C. Axley†, B.R. Strauss†, J.Y. Cohen, C.S. Colwell and D.G. McMahon (2009). Population Encoding by Circadian Clock Neurons Organizes Circadian Behavior. *J. Neuroscience*. **29**(6): 1670-6. PMCID: PMC2670758

2008 **C.M. Ciarleglio**, K. Ryckman, S.V. Servick, A. Hida, S. Robbins, N. Wells, J. Hicks, S.A. Larson†, J.P. Wiedermann†, K. Carver, N. Hamilton, K.K. Kidd, J.R. Kidd, J. Smith, J. Friedlaender, D.G. McMahon, S. Williams, M.L. Summar and C.H. Johnson (2008). Population Frequencies of Genetic Polymorphisms in Human Circadian Clock Genes. *J. Biological Rhythms.* **23**(4): 330-340. PMCID: PMC2579796

TEXTBOOKS & CHAPTERS

C.M. Ciarleglio, R.C. Besing, and K.L. Gamble (2020). Chapter 23: Circadian Rhythms and Sleep. *Essentials of Modern Neuroscience*. Ed. Franklin R. Amthor, W. Anne Burton Theibert, David G. Standaert, and Erik Roberson. McGraw Hill Global Education Holdings, LLC, New York City, NY.

DISTINCTIONS

2020 University of Chicago's **Outstanding Educator Award**
2014-2015 Regional Finalist (Boston) for the **White House Fellows Program**
2013 **Society for Neuroscience Travel Grant,** Postdoctoral Award Winner, SfN Conference
2013 **Rhode Island Chapter Society for Neuroscience Travel Grant,** Postdoctoral Nominee
2010 **Donald B. Lindsley Prize in Behavioral Neuroscience,** Award Finalist, SfN Conference
2010 **Middle TN Chapter Society for Neuroscience Next Generation Award,** Postdoctoral Nominee
2010 **Society for Research on Biological Rhythms Merit Award,** Postdoctoral Winner
2008 **Society for Research on Biological Rhythms Travel Grant,** Predoctoral Award Winner
2007 **Society for Neuroscience Travel Grant,** Predoctoral Award Winner, SfN Conference
2007 **Middle Tennessee Chapter Society for Neuroscience Travel Grant,** Predoctoral Nominee
2006, `07, `08 **Vanderbilt University Graduate School Travel Grant,** Award Winner
2002-2004 **Swarthmore College Class of 1913 Scholar**
2001 & 2002 **Marguerite McGraw Scholarship,** BankBoston/Fleet, Holy Cross High School
2000 **Wolcott Circle of Sports Scholarship,** Football Recipient, Holy Cross High School
2000 **Waterbury Sportsmen's Club Scholarship,** Holy Cross High School
2000 **Olympian Club of Waterbury Scholarship,** Holy Cross High School
2000 **Santo Sampino I Memorial Scholarship,** UNICO National Club of Waterbury, Holy Cross H.S.
2000 **Waterbury Medical Association Scholarship,** Holy Cross High School
2000 **Waterbury Kiwanis Club Scholarship,** Holy Cross High School
2000 **Merrimack College Book Award,** Holy Cross High School
2000 **Biology Medal of Honor,** Holy Cross High School
1999 **Michael's Jewelers Service Award,** Holy Cross High School
1998 & 1999 **Republican-American All-Academic Team** (Football), Fall Season, Holy Cross High School
1999 **Captain (Football),** Holy Cross High School
1998 & 1999 **All-City (Waterbury, CT) Football,** Holy Cross High School
1999 **All-League (Naugatuck Valley League, CT) Football** as TE, Holy Cross High School
1999 **All-State (CT) Football** as Receiver, Holy Cross High School
1999 **Fowler Counselor of the Year Award,** Holiday Hill Day Camp
1999-2000 **National Honors Society,** Holy Cross High School
1999 **Spanish Honors Society,** Holy Cross High School

ACADEMIC SERVICE

2016-present **Accreditation Trained,** Connecticut Association of Independent Schools (CAIS) *and* New England Association of Schools and Colleges (NEASC) (4/20/2016)
2016 **Connecticut State Science and Engineering Fair Judge**
2016 **New Hampshire State Science and Engineering Fair Judge**

2016 **Vermont State Science, Technology, Engineering, and Math Fair Judge**
2013-2015 **Neuroscience Representative,** Postdoctoral Advisory Panel, Brown University
2014-2015 **Co-Founder & Executive Member,** Postdocs in Brain Science (PiBS) @ Brown University
2014 **Instructor,** Brown University Brain Bee Program (Society for Neuroscience). Brown University
2014 **Alumni Panelist,** "The Liberal Arts Toolbox: Swarthmore After the Classroom" @ Swarthmore College
2014 **SPARK Leadership Development Curriculum Coordinator,** Summer@Brown SPARK Program, Brown University
2013-2014 **Senior Scholar,** William C. Dement Sleep and Chronobiology Research Fellowship, Bradley Sleep Lab
2014 **Module Coordinator,** Initiative to Maximize Student Development, Brown University
2013 & 2014 **Essay Contest Judge,** The American Society of Human Genetics DNA Day
2014 **Alumni Panelist,** "Ride the Tide" orientation event for admitted students. Swarthmore College
2012-2016 **Rhode Island State Science & Engineering Fair Judge**
2011 **Author,** *Constitution of the Vanderbilt Brain Institute*, Vanderbilt University
2010 **Chair,** "Basic methodology to study human circadian rhythms" Workshop, SRBR Conf.
2009-2010 **Designer,** Circadian Core, Vanderbilt Laboratory for Neurobehavior
2009 **Rhythms In SouthEastern Regions (RISER),** Planning Co-coordinator, Regional Conference
2008 **Vanderbilt Biological Sciences Retreat Planning Committee,** Retreat Representative
2007 **Vanderbilt University Neuroscience Student Organization,** Retreat Coordinator
2006-2007 **Vanderbilt University Neuroscience Curriculum Committee,** student member
2003 **Swarthmore College Student Council,** Appointments Chair

BOARD MEMBERSHIPS

2017-2019 **Member,** Holy Cross High School, Waterbury, Connecticut
2004-2019 **Member-at-Large,** Delta Upsilon International Fraternity – *Swarthmore Chapter* Alumni Council, Swarthmore College, Swarthmore, Pennsylvania

DISSERTATION COMMITTEES

2022 **Committee Member,** granting Doctorate in Social Work (DSW) to Laura Ascadi, LCSW-C, for her dissertation entitled: *A Two-Article Examination of Mentalization Based Treatment for Children with Attentional Disorders*. University of Pennsylvania.

SOCIETY MEMBERSHIPS

2016-2019 **Association of Independent Maryland & DC Schools,** member
2016-2019 **National Association of Independent Schools,** institutional member
2015-2019 **National Science Teacher's Association,** member
2014→ **Sigma Xi**, *Brown University Chapter*, full member
2011-2015 **National Postdoctoral Association,** Affiliate Individual Member, Postdoc
2011-2016 **Faculty for Undergraduate Neuroscience,** member
2005-2015 **Society for Research on Biological Rhythms,** member
2005-2016 **Society for Neuroscience,** member
2005-2011 **Middle Tennessee Chapter Society for Neuroscience,** member
2005-2015 **American Society of Human Genetics,** member
2004-2015 **American Association for the Advancement of Science,** member

EDITORIAL BOARDS & LAY PUBLICATIONS

2020-2022 **Editor & Curator,** *Curriculum Bulletin for Morris Catholic High School*

2006-present **Manuscript Reviewer,** *Journal of Neuroscience*, *Current Biology*, *PLoS One*, *Biology Open*, *Chronobiology International*

2015 **Guest Editor,** *PNAS*

2010-2011 **Editor,** *Vanderbilt Neuroscience Graduate Program Handbook*

2009-2011 **Founder, Editor-in-Chief,** *Vanderbilt Reviews Neuroscience*

2009 **Contributing Author,** *A.B.S.T.R.A.C.T.*

2008 **Abstract Editor** and **Program Designer,** Vanderbilt Biological Sciences Retreat Program

2007 **Illustrator**, "Understanding the Brain" by Jeannette Norden, Ph.D. and *The Teaching Company*

2007 **Abstract Editor** and **Program Designer,** Vanderbilt Neuroscience Retreat Program

2005-2011 **Founding Member of the Editorial Review Board,** *Vanderbilt Undergraduate Research Journal*

2003-2004 **Co-Author, *Swarthmore Chapter* Constitution of Delta Upsilon Fraternity**

2003 **Associate Editor, *Halcyon* Yearbook,** Swarthmore College

CONFERENCE ABSTRACTS, POSTERS & PRESENTATIONS

† *indicates undergraduate author*

2014 A.S. Hamodi, **C.M. Ciarleglio**, C.D. Aizenman, and K.G. Pratt (2014). A novel class of fast spiking neurons identified in the Xenopus tadpole optic tectum. 2014 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Conference abstract and poster.

2014 E.V. Jang†, A.S. Khakhálin, **C.M. Ciarleglio**, C.M. Ramirez-Vizcarrondo†, and C.D. Aizenman (2014). A computational model of collision detection in the optic tectum of *Xenopus* tadpoles. 2014 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Conference abstract and poster.

2014 A.F. Wang†, S.P. Yip†, A.C. Constantino†, **C.M. Ciarleglio**, and C.D. Aizenman (2014). A characterization of gene contributions to developmental and plastic processes in the *Xenopus laevis* brain. New England Science Symposium. Harvard University, Cambridge, MA. Conference abstract and poster by undergraduate mentee.

2014 A.F. Wang†, S.P. Yip†, A.C. Constantino†, **C.M. Ciarleglio**, and C.D. Aizenman (2014). Characterizing functional neural networks during *Xenopus laevis* brain development and plasticity. Northeast Under/graduate Research Organization for Neuroscience. Quinnipiac University, North Haven, CT. Conference abstract and poster by undergraduate mentee.

2014 A. Shan†, S.P. Yip†, **C.M. Ciarleglio**, and C.D. Aizenman (2014). Characterizing neuronal subtype by histology within the *Xenopus laevis* optic tectum. Northeast Under/graduate Research Organization for Neuroscience. Quinnipiac University, North Haven, CT. Conference abstract and poster by undergraduate mentee.

2014 E.V. Jang†, A.S. Khakhálin, **C.M. Ciarleglio**, and C.D. Aizenman (2014). A computational model of collision detection in the optic tectum of *Xenopus laevis* tadpoles. Northeast Under/graduate Research Organization for Neuroscience. Quinnipiac University, North Haven, CT. Conference abstract and poster by undergraduate (not a mentee).

2013 **C.M. Ciarleglio**, A.S. Khakhálin, S.P. Yip†, A.F. Wang† and C.D. Aizenman (2013). A census of tectal neuron electrophysiological properties, and their modulation across development and as a result of plasticity. 2013 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. Conference abstract and poster. *SfN Postdoctoral Travel Award Winner.

2013 A.F. Wang†, S.P. Yip†, E.J. James, **C.M. Ciarleglio**, and C.D. Aizenman (2013). Characterizing gene expression within the developing *Xenopus laevis* brain. 2013 Undergraduate Summer Research Symposium. Brown University.

2012 H.E.S. Resuehr, **C.M. Ciarleglio**, E. Deneris and D.G. McMahon (2012). The Interrelation of the Serotonergic and Circadian Clock Systems. Society for Research on Biological Rhythms. Destin, FL. Conference abstract and poster.

2011 H.E.S. Resuehr, **C.M. Ciarleglio**, J.C. Axley†, E. Deneris and D.G. McMahon (2011). Serotonin impacts on the circadian clock network. 2011 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Conference abstract and poster.

2010 **C.M. Ciarleglio**, J.C. Axley†, H.E.S. Resuehr, E. Deneris and D.G. McMahon (2010). Circadian behavioral characterization of *Pet-1* knockout mice. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. Conference abstract and poster.

2010 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss, K.L. Gamble and D.G. McMahon (2010). Perinatal photoperiod imprints the circadian clock. Society for Research on Biological Rhythms. Destin, FL. Conference abstract and poster. *SRBR Postdoctoral Merit Award Winner.

2010 J.C. Axley†, **C.M. Ciarleglio**, E. Deneris and D.G. McMahon (2010). Circadian characterization of 5-HT knockdown Pet-1 knockout mice. Society for Research on Biological Rhythms. Destin, FL. Conference abstract and poster.

2009 J.C. Axley†, **C.M. Ciarleglio**, H.E.S. Resuehr, E. Deneris and D.G. McMahon (2009). Characterization of ePet-1 Knockout Mice. 2009 Vanderbilt Conte Center Symposium: Serotonin – A Day in the Life. Nashville, TN. Conference poster.

2009 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss, K.L. Gamble and D.G. McMahon (2009). Photoperiodic input during perinatal development influences organization of the circadian clock. 2009 Vanderbilt Conte Center Symposium: Serotonin – A Day in the Life. Nashville, TN. Conference poster.

2009 K.L. Gamble, A.A. Motsinger-Reif, H.M. Borsetti, S.V. Servick, **C.M. Ciarleglio**, A. Hida, N. Wells, D.G. McMahon and C.H. Johnson (2009). Shiftwork in nurses: Contribution of phenotypes and genotypes to adaptation. Gordon Research Conference on Chronobiology, Salve Regina, RI. Conference abstract and poster.

2009 D.G. McMahon, K.L. Gamble and **C.M. Ciarleglio** (2009). Photoperiodic input during perinatal development influences organization of the circadian clock. Gordon Research Conference on Chronobiology. Salve Regina, RI. Conference abstract and poster.

2009 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss†, K.L. Gamble and D.G. McMahon (2009). Photoperiodic input during perinatal development influences organization of the circadian clock. 2009 RISER. Nashville, TN. Conference talk.

2008 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss†, J.Y. Cohen, K.L. Gamble and D.G. McMahon (2008). Photoperiodic input during postnatal development influences organization of the circadian clock. 2008 Vanderbilt Conte Center Symposium: How the Brain Got Its Groove Back – Serotonin's Key Role in the Foundations of Behavior and Brain Disorders. Nashville, TN. Conference poster.

2008 **C.M. Ciarleglio**, J.C. Axley†, B.R. Strauss†, J.Y. Cohen, K.L. Gamble and D.G. McMahon (2008). Photoperiodic input during postnatal development influences organization of the circadian clock. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Conference abstract and talk.

2008 **C.M. Ciarleglio**, K. L. Gamble, J. C. Axley†, B. R. Strauss†, C. S. Colwell and D. G. McMahon (2008). Asynchronous neurons in the SCN of adult VIP knockout mice exhibit preservation of pacemaker characteristics. Society for Research on Biological Rhythms. Destin, FL. Conference abstract and poster. *SRBR Predoctoral Travel Award Winner.

2007 **C.M. Ciarleglio**, B.R. Strauss†, J.C. Axley† and D.G. McMahon (2007). Seasonal encoding in mouse (*Mus musculus*) SCN. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. Conference abstract and poster. *SfN Predoctoral Travel Award Winner.

2007 D.G. McMahon and **C.M. Ciarleglio** (2007). Seasonal encoding in mouse (*Mus musculus*) biological clock. Joint meeting of The Slovak Physiological Society, The Physiological Society and The Federation of European Physiological Societies. Bratislava, Slovakia. Conference abstract and presentation by DGM.

2006 M.H. Bazalakova, D.R. Lund, J. Wright, E.J. Schneble, C.J. Heilman, **C.M. Ciarleglio**, H. Ohta, D.G. McMahon, A.I. Levey, M.P. McDonald and R.D. Blakely (2006). Diminished acetylcholine stores and challenge-induced behavioral deficits in choline transporter heterozygous mice. 2006 Neuroscience Meeting Planner. Atlanta, GA: Society for Neuroscience. Conference abstract.

2006 M.H. Bazalakova, D.R. Lund, J. Wright, E.J. Schneble, C.J. Heilman, **C.M. Ciarleglio**, H. Ohta, D.G. McMahon, A.I. Levey, M.P. McDonald and R.D. Blakely (2006). Choline Transporter Deficient Mice Display Motor Abnormalities in Response to Physical and Pharmacological Challenge. Gordon Conference on Genes and Behavior. Conference abstract.

2006 **C.M. Ciarleglio**, K.L. Gamble, C.S. Colwell and D.G. McMahon (2006). Combined Infrared and Wheel-running Monitoring Reveals Unconsolidated Locomotor Behaviors in VIP KO Mice. Society for Research on Biological Rhythms. Destin, FL. Conference abstract and poster.

2003 R.J.A. (Kohlberg-)Davis†, **C.M. Ciarleglio**† and J. Cebra-Thomas (2003). Analysis of Notch receptor signaling in B cell development in the chick bursa of fabricius by means of a Notch/Serrate pathway. Jefferson University Sigma Xi Student Research Day. Philadelphia, PA. Poster presentation.

OUTREACH

27 Feb. 2015 **Exeter-West Greenwich Junior High School,** STEM Outreach: Neuro Free-Forum.

27 Nov. 2013 **The Gilbert School,** "Neuroscience in Psychology"

Spring 2013 **Neuroscience Discovery Program Presenter,** Providence Center School Science Fair

Spring 2011 **Vanderbilt Neuroscience Outreach Initiative,** Christ Presbyterian Academy, David Lipscomb Campus School, Davidson Academy, Ensworth High School, Father Ryan High School, Harpeth Hall High School, Montgomery Bell Academy, Nashville Christian School, University School of Nashville. In my capacity as Asst. Director for Outreach & Education, I founded and facilitated a program whereby the VBI went into private high schools to raise student awareness and interest in STEM.

2007 **Vanderbilt Research-In-Progress High School Poster Contest,** Panel Judge

2006-2009 **Biological Rhythms Booth at Vanderbilt University BrainBlast (SfN Brain Awareness Month),** Co-Organizer, Spring

15,18 Jan. 2010 **Harpeth Hall School,** "Brain Games: Neuroscience in the Real World"

CURRENT COURSE OFFERINGS

**indicates course director (syllabi available upon request)*

Holy Cross High School

2024-25 *Advanced Scientific Exploration. One Section. Offered to seniors.

2023-24 *Anatomy & Physiology. One Section. Offered to seniors.

2022→ ***AP Biology**. One Section. Offered to qualified senior students.

2022→ ***Biology Honors**. Two Sections. Offered to qualified Freshmen.

2022-23 Earth Science. One Section. Offered to Juniors.

prop. 2024 ***Scientific Communication.** Two Sections. Offered to select Science Academy Juniors.

prop. 2024 ***Senior Capstone.** Two Sections. Offered to select Science Academy Seniors.

Precollege and Undergraduate

2017→ ***Anatomy, Physiology & Disease, AS.360.101.45 (& .65) (Part 1: "Core Systems"), AS.360.101.55 (Part 2: "Guts, Hormones, & Reproduction"),** Johns Hopkins University, Summers

These two Discover Hopkins Summer courses introduce, in two equal parts, the basics of cellular and human anatomy and physiology. They consist of lecture and much discussion for 6 hours daily for two weeks (Part 1 on the nervous, muscular, and cardiovascular systems) and then again for a final two weeks (Part 2 on remaining physiological systems). Afternoons are dedicated to experiential learning and application of the day's newfound knowledge through labs, invited speakers, and art. Instructure's Canvas learning management system is used extensively. Supervisor of Teaching Associates: Emma Glinsmann, M.A.T. (2017), Lena Mak (2018-2020), Sarah Roy, MSEd (2020→), Briana Bradford, MSEd (2023).

INVITED PRESENTATIONS

12 June 2015 **Children's National Medical Center,** "Rhythms, *Astrology*, and You: Seasonal Imprinting in the Developing Mammalian Clock"

13 May 2015 **Washington University in St. Louis,** "Rhythms, *Astrology*, and You: Seasonal Imprinting in the Developing Mammalian Clock"

17 Feb. 2015 **W. M. Keck Science Department @ Claremont McKenna College • Pitzer College • Scripps College,** "Rhythms, *Astrology*, and You: Seasonal Imprinting in the Mammalian Clock" and "Do or Die: The Action Potential"

4 Dec. 2014 **Sewanee – The University of the South,** "Rhythms, Astrology, and You: Environmental Imprinting of Clock Function"

1-2 Dec. 2014 **Middlebury College,** "A Grand Tectal Census: Gaining Functional Insight into Vertebrate Brain Development and Plasticity Using the Frog Tadpole" and "The Molecular Basis of Synaptic Transmission"

29 Oct. 2014 **Mount Holyoke College,** "Rhythms, Astrology, and You: Environmental Imprinting of Clock Function"

26 Sept. 2014 **Swarthmore College,** as part of the Biology Major Senior Seminar Series. "Rhythms, Astrology, and You: Environmental Imprinting of Clock Function"

4 Feb. 2014 **Providence Sleep Research Interest Group** and **Advancing Rhode Island Science Education** (Two invitations - combined event). "Interactions between the Circadian and Serotonergic Systems: Nature and Nurture in Rhythms and Blues"

24 Jan. 2011 **Wesleyan University (Middletown, CT),** "Circadian Rhythm Fundamentals: Entrainment"

2 April 2010 **Trinity College (Hartford, CT),** "Rhythms, Astrology and You: Circadian Encoding in the Mammalian Brain"

25 Feb. 2010 **Brown University,** "Rhythms, Astrology and You: Circadian Encoding in the Mammalian Brain"

24 Feb. 2010 **American University,** "Rhythms, Astrology and You: Circadian Encoding in the Mammalian Brain"

3 Feb. 2010 **Siena College,** "Rhythms, Astrology and You: Circadian Encoding in the Mammalian Brain"

PAST TEACHING EXPERIENCE

**indicates course director (syllabi available upon request)*

Undergraduate

† *indicates Honors; * indicates Fellowship winner*

2017→ **Supervisor of Undergraduate Teaching Associates,** Johns Hopkins University
Lena Mak `20 (UVM); Amanda Guardia `19 (UT-Rio Grande Valley); Lila Berle `22 (Tufts); Alisha Mody `20 (Emory); Max Bethel `20 (Pomona); Aayush Pokharel `22 (JHU); John Howard `22 (UChicago); Andrew Bennett `21 (U South Carolina); Anne Noon `24 (UT - Austin); Marco Gordils `26 (Rutgers); Alexander Kaelin `26 (High Point); Ruhshana Bobojonova `24 (JHU); Prithika Satish `24 (Sacred Heart); Brooke Morren `25 (UF); Adiam Asgedom `25 (JHU); Nicole Ni `25 (JHU); Christina Im `24 (JHU); Micaela Feldi `24 (JHU)

2011-2017 **Supervisor of Undergraduate Teaching Associates,** Brown University
Alan Shan `14*†; Angelia F. Wang `16**; Carolina M. Ramirez Vizcarrondo `15*†; Tessa R.L. Mackey `20

2011-2016 **Supervisor of Undergraduate Student Research,** Brown University
Jon Suzich `12; Alan Shan `14*†; Sarah P. Yip `14*; Alexander C. Constantino `15*;
Angelia F. Wang `16**

2005-2010 **Supervisor of Undergraduate Student Research,** Vanderbilt University
Sydney A. Larson `07; Joshua P. Wiedermann `08†; Benjamin R. Strauss `08†; John C. Axley `10*.

2019-20 ***Neurobiology, AS.360.160.71 (Part 1: Cellular), AS.360.160.73 (Part 2: Behavioral),** Johns Hopkins University, Summers
These two Summer Mini-Term courses introduce, in two equal parts, the basics of cellular and behavioral neurobiology. This is a short, late afternoon college seminar consisting mostly of discussion for 1.75 hours daily for two weeks (Part 1 on cellular neurobiology) and then again for a final two weeks (Part 2 on behavioral neurobiology). Instructure's Canvas learning management system is used extensively.

2013-2017 ***Principles of Human Physiology, CEBI 0923 (A), CEBI 0929 (B),** Brown University, Summers
These two Summer@Brown pre-college courses introduce, in two equal parts, the basics of cellular and human physiology. They consist of lecture and much discussion for 3 hours daily for two weeks (part A on the nervous, muscular, and cardiovascular systems) and then again a final two weeks (part B on remaining physiological systems). Instructure's Canvas learning management system was used extensively. Supervisor of Teaching Associates: Alan Shan (2013), Angelia Wang (2013-14), Carolina Ramirez Vizcarrondo (2015), Tessa Mackey (2016-17).

2013-2014 ***Communicating Science: Writing, Editing, Reviewing and Presenting the Language of Science, CEEL 0980,** Brown University, Summers
This Summer@Brown pre-college course introduces the essential skills necessary for any future scientist, emphasizing the language of science and how information is disseminated. The course generally consists of lecture, demonstration, guided discussion, and much writing. Instructure's Canvas learning management system was used extensively. The course culminated with a collection of the students' work into a single journal, which we faux-published, giving the students a tangible reminder of their hard-work and accomplishments.

2013 **Principles of Neurobiology Guest Lecturer,** Brown University
"Circadian Neurobiology." An undergraduate lecture on the fundamentals of circadian rhythms and the neural systems that generate them, from molecules to electrophysiology to behavior.

2012 ***Human Physiology, LAEL-LE41,** Rhode Island School of Design
I directed this popular elective course at the renowned art/design school as an adjunct lecturer, designing and teaching the course from the ground-up. The course consists of 3 hours of lecture/discussion per week for 12 weeks, with assignments and special projects uniting physiology with art/design. Instructure's Canvas learning management system was used extensively.

2011 **Vertebrate Physiology Neurophysiology Lecturer,** Vanderbilt University
I served as the primary lecturer on human/vertebrate neurophysiology in this course for advanced undergraduates seeking to attend medical school. The topics I covered ranged from simple molecular and cellular neurophysiology to the anatomical basis of neurology.

2007 **Biological Clocks Guest Lecturer,** Vanderbilt University
"Entrainment Theory." An undergraduate lecture on the fundamentals of entrainment theory—how the biological clock is thought to maintain synchrony to the external environment.

2007 **Cellular Neurobiology Teacher's Assistant and Lecturer,** Vanderbilt University
I served as the sole Teacher's Assistant for this mid-level undergraduate course on cellular neurobiology, wherein I attended all lectures, held office hours three times per week and graded homework problems and exams. I also gave an undergraduate lecture on the biosynthesis and classification of neurotransmitters, and on the expression, function and targeting of neurotransporters in the central nervous system titled: "Neurotransmitters and Neurotransporters."

2003 **Neurobiology Teacher's Assistant,** Swarthmore College
I assisted in the instruction of laboratory work for "Neurobiology." This consisted of 2 hours of setup, 4 hours in lab and additional assistance to students outside of class when requested. I also held weekly study sessions.

2002 & 2003 **Population and Organismal Biology Computer Lab Instructor,** Swarthmore College
Over two consecutive Springs, I instructed computer-based analysis for the introductory biology II course. This consisted of 4.5 hours in computer lab per week, weekly faculty meetings and additional student assistance when requested outside the class and computer lab setting.

2004 **Population and Organismal Biology Lab Instructor,** Swarthmore College
2002 **Cellular and Molecular Biology Laboratory Assistant,** Swarthmore College
2002 **General Chemistry Teacher's Assistant,** Swarthmore College
2002 **Organic Chemistry I Teacher's Assistant,** Swarthmore College
Assisted in the instruction of laboratory work for this course. This consisted of 3 hours in lab, grading homework and lab reports and additional assistance to students when requested.

Graduate

2012-2015 **Supervisor of Graduate Rotation Student Training,** Brown University, 2012-present.
Eric James, Torrey Truszkowski, Rachel Stevenson

2014 ***Navigating a Successful Graduate Career,** Graduate School, Brown University
I co-taught this series of workshops for the Initiative to Maximize Student Development (IMSD), wherein we addressed the key aspects of achieving a successful graduate career and introduced the essential skills necessary for a career in the sciences. Students learned how to recognize and acquire behaviors that promote career success in graduate training in biology and public health, and identified useful strategies for maximizing impact at scientific meetings and in other professional settings. Students gained insight into how to successfully present themselves in interviews and on CVs, and improved interpersonal communications and interactions with colleagues.

2010 **Neuroscience Discussions Guest Lecturer,** Vanderbilt University
"Neuroscience Graduate Education: On the Essential Triumphs and Failures of the Student." At the request of course director and Vanderbilt Brain Institute Director Mark Wallace, I held a discussion with first- and second-year neuroscience graduate students about the challenges they face as fledgling researchers in an exploding field, and on how to survive them.

2009 ***Mammalian Developmental Neurobiology,** Vanderbilt University
At my request, this 2-credit course was created as an advanced topics graduate course on the development of the nervous system in mammals, with special attention paid to unique and modern problems in human development, such as ADHD, consequences of drug abuse, psychiatric disorders and epigenetics. The course consisted of lecture or general topic discussion followed by the presentation and discussion by the students of recent literature on the topic.

2009 **Human Genetics Lecturer,** Vanderbilt University
"Epigenetics 2: Chromatin modification and impact of epigenetics." A graduate and professional lecture on how the environment specifically interacts with the genome to alter physiology.

"Human Clock Genetics." A graduate and professional lecture on the most basic roles of genes in the human circadian rhythm, and how genetic alteration can lead to dysfunction and disease.

2008 **Human Genetics Lecturer,** Vanderbilt University
"Human Genetics and the Physical World." A graduate and professional lecture on epigenetics using classical and recent work done on how the environment specifically interacts with the genome to alter physiology.

2008 **Center for Teaching Instructor,** Vanderbilt University
"How to Teach an Undergraduate Laboratory." I instructed new graduate students on: how to TA an undergraduate laboratory, what are common practices and what are common problems.

2006 **Flextime Leader,** Vanderbilt University Interdisciplinary Graduate Program
"Neuroanatomy." As if in a laboratory setting, I lectured to new graduate students in the Interdisciplinary Graduate Program (through the Biomedical Research Education and Training office) on basic neuroanatomy using a sheep brain.

Medical

2006-2010 **Medical Neuroanatomy Illustrator,** Vanderbilt University School of Medicine
After taking the course myself in the Fall of 2005, I volunteered my time and skills as Dr. Jeanette Norden's neuroanatomical illustrator for her second-year medical course on neuroanatomy, neuroscience, and neurology. This involved the creation of easy-to-understand neuroscience drawings for her renowned class notes. I then served in an unofficial advisory capacity for those graduate students taking the medical school class.

High School

2019-22 ***AP Biology**. Morris Catholic High School. One Section. Offered to qualified upper-class students.
2019-22 ***Biology Honors**. Morris Catholic High School. 2-3 Sections. Offered to qualified Freshmen.
2019-22 ***Genetics Honors.** Morris Catholic High School. One Section. Offered to select AMI students.
2020-22 ***Neurobiology Honors.** Morris Catholic High School. One Section. Offered to select AMI students.
2022 ***Scientific Communication.** Morris Catholic High School. Two Sections. Offered to select AMI Juniors.
2022 ***Senior Capstone.** Morris Catholic High School. Two Sections. Offered to AMI Seniors.
2016-19 ***AP Biology**. Gilman School. One Section. Offered to qualified Senior students.
2016-19 ***Honors Biology**. Gilman School. 2-3 Sections. Offered to qualified Juniors.
2017-19 ***Neurobiology.** Gilman School. One Section. Offered to select Seniors. Coed coordination with Bryn Mawr School and Roland Park Country School.
2015-2016 ***AP Biology**, The Gunnery. Two Sections. Offered to qualified Junior and Senior students.

2015-2016 *__Honors Biology__, The Gunnery. One Section. Offered to qualified first year students.

2015-2016 **Big History,** The Gunnery. Served as a guest lecturer on how scientific topics drive historical events.

2015 **General Biology**, The Gunnery. Two Sections (cover for sick colleague over one semester). Offered to first- and second-year students.

2011 **Vanderbilt Neuroscience Outreach Initiative**
As Asst. Director for Outreach & Education, I founded and facilitated a program whereby the VBI went into private high schools to raise student awareness and interest in STEM.

2007 & 2008 **Research Internship Program Guest Instructor,** Vanderbilt University Center for Science Outreach
"How to read primary literature." An open discussion of the pros and cons of a particular paper, why it was organized a certain way, and how it was unusual.

2008 **Supervisor of High School Student Research,** Vanderbilt University. Two students.

Proposed ***Biomedical Research: Animal Models and Scientific Discovery (a.k.a. My Mouse vs. Your Monkey: Exploring Animal Models in Science), CEBI 0952,** Brown University
This course surveys animal models used in biomedical research with significant emphasis on scientific communication skills. I created this hybrid online/on-campus course with the Office of Continuing Education team at Brown (originally designed for Summer-Session 2012 but low interest prohibited the course from running) with an expected re-launch. It will consist of one week online, followed by two weeks in-class with lecture and much discussion for 3 hours daily, followed by a final portion online and submission of a large project.

Proposed ***The Clocks Within Us: Rhythm Biology and Disease, CEBI 0950,** Brown University
This course emphasizes the classical biology and the more recent neurobiological advances into the study of biological clocks, particularly pertaining to mammalian circadian physiology, neurobiology and behavior. The course (originally designed for Summer-Session 2012 but low interest prohibited the course from running) will generally consist of a lecture for the first hour and guided discussion and student presentation of primary literature in the latter portion of the class. It meets daily for 3 hours over 2 weeks.

Middle School

2013-2014 **SPARK Expert Series Guest Lecturer,** Brown University School of Professional Studies
"Neuroscience Presentation and Discussion." As a part of the Summer@Brown SPARK program, I taught two 90 minute sections on neuroscience (and STEM in general), in which I not only presented a motivational career-narrative, but also attempted to answer any science question they had. The first section included rising 9th graders, while the second section included rising 7th and 8th graders. My ultimate goals were to not only provide some baseline understanding of the most basic concepts in neuroscience, but to also spark in these students a fascination with science, medicine, and research that might motivate them to take a STEM-related track in their high school and collegiate studies.

CERTIFICATIONS & WORKSHOPS

Connecticut Association of Independent Schools (CAIS) and *New England Association of Schools and Colleges (NEASC)*
20 April 2016 **Accreditation Training**

Massachusetts Institute of Technology
7 February 2014 **CLARITY Workshop,** *Lab of Kwunghun Chung*

Harriet W. Sheridan Center for Teaching and Learning (Brown University)
2012-2013 **Certificate I: Sheridan Teaching Seminar - Reflective Teaching**

Cold Spring Harbor Laboratory
21-23 April 2013 **The Genome Access Course**
13-24 April 2012 **Cell & Developmental Biology of *Xenopus***

Brown University
10 August 2011 **Biosafety Training**
10 August 2011 **Bloodborne Pathogens Training**
10 August 2011 **Annual Hazardous Waste Training**
12 August 2011 **Laboratory Safety Training**
26 Sept. 2011 **Ethical and Responsible Conduct of Research**

Vanderbilt University
Fall 2004 **ResearchTraining.org – "Working with the IACUC"**
Fall 2004 **ResearchTraining.org – "Working with Mice in Research Settings"**
Fall 2004 **ResearchTraining.org – "Working with Rats in Research Settings"**
Fall 2004 **ResearchTraining.org – "Working with Primates in Research Settings"**
Fall 2004 **ResearchTraining.org – "Working with Guinea Pigs in Research Settings"**
Fall 2004 **ResearchTraining.org – "Working with Hamsters in Research Settings"**
Fall 2004 **ResearchTraining.org – "Working with Rabbits in Research Settings"**
Fall 2004 **ResearchTraining.org – "Post-Procedural Care of Mice and Rats in Research: Reducing Pain and Distress"**
August 2004 **Responsible Conduct of Research Training**

State of Tennessee
2010 **Insurance Producer License – Life & Health**

ACTIVITIES & VOLUNTEERISM

2013-2015 **Graduate Women in Science and Engineering (GWiSE),** Brown University
2013-2015 **Initiative to Maximize Student Development,** Brown University
2013-2015 **Postdoctoral Advisory Panel,** Brown University
2005-2009 **Fighting Hippocampi Softball Team Assistant Coach/Player,** Vanderbilt University
2006-2008 **Fighting Hippocampi Flag Football Coach/Player,** Vanderbilt University
Spring 2004 **President of Delta Upsilon Fraternity • *Swarthmore Chapter***
F2003-S2004 **Resident Advisor,** Swarthmore College
2003 **Student Council Appointments Chair,** Swarthmore College
2003 **Community Service Chairman of Delta Upsilon Fraternity • *Swarthmore Chapter***
2002 **Campus Advisor,** Swarthmore College
2001 & 2002 **Pledge Advisor of Delta Upsilon Fraternity • *Swarthmore Chapter***
2000 **Football player,** Swarthmore College, Fall. Program discontinued December 2000.

1997-1999 **SS. Peter & Paul Parish Council,** Waterbury, CT
1999-2000 **Senior Life Board Inaugural Member,** Holy Cross High School Student Council
1999 **Author,** *Holy Cross High School Constitution of Student Government*
1998-2000 **Class Vice President,** Holy Cross High School Student Council
1999 **Special Olympics - CT State Basketball Tournament**
1998 **SS. Peter & Paul Stewardship Committee,** Waterbury, CT
1997-1998 **SS. Peter & Paul CCD Teacher,** Waterbury, CT
1997 **HOBY (Hugh O'Brian Youth Leadership Organization) Representative**, Class of 2000.
1997-1999 **Eucharistic Minister,** Archdiocese of Hartford, CT
1999 **Outdoor Track & Field athlete,** Holy Cross High School, V (Jr).
1998-1999 **Indoor Track & Field athlete,** Holy Cross High School, V Winter (Jr).
1996-1999 **Football player,** Holy Cross High School, F – 1996; JV – 1997; V – 1998-9 (Fr, So, Jr, Sr).
1997-1998 **Baseball player,** Holy Cross High School, F – 1997; JV – 1998 (Fr, So).

ADDITIONAL EXPERIENCE & SKILLS

Lab Skills: acute brain slice culture, confocal microscopy, cell culture, immunohisto/cytochemistry, patch-clamp electrophysiology, RNA isolation, microarray, NanoString, qPCR, CLARITY, *Xenopus* and rodent husbandry, rodent/tadpole behavior, cloning, Lumicycle, ClockLab, electrophoresis

Computer: Microsoft Office, Adobe Master Collection (Acrobat, Illustrator, InDesign, Lightroom, Photoshop, Premiere Pro), Lightwave 3D, SPSS, Axograph, MetaMorph, Origin, Oriana, Endnote, SigmaPlot, KaleidaGraph, JMP, SciDavis, Sketchup Pro, Topaz Photo AI

Learning Management Systems: Instructure's Canvas (*_choice LMS_*), Blackboard, Moodle, edline, Schoology, PowerSchool

Art (amateur): scientific illustration and animation, graphic design, print copy, digital photography

Editorial: journals, manuscripts, programs, scientific communication

Athletics: football, golf, baseball, softball, track, cycling, skiing, weightlifting

Interests: history (Roman, early Christian, early American), cosmology, STEaM and education policy, politics

REFERENCES

Available upon request.