

CURRICULUM VITAE

Updated August 2013

NAME Aaron Lee Cecala

Personal

Date of Birth: August 12, 1980
Place of Birth: Springville, NY, USA
Citizenship: USA

CONTACT INFORMATION

Mailing address Department of Biology
Elizabethtown College
One Alpha Drive
Elizabethtown, PA 17022-2298

Phone: 717.361.1341

Fax: 717.361.1243

E-mail: cecalaa@etown.edu

EDUCATION

2009 PhD Neurobiology & Anatomy University of Rochester

Thesis: *Adaptive Control of Primate, Head- Unrestrained Gaze Shifts*
(Advisor: Edward G. Freedman)

2005 M.S. Neurobiology & Anatomy University of Rochester
(Advisor: Edward G. Freedman)

2002 B.S. Neuroscience/Psychology Allegheny College
Cum Laude; Honors in Psychology

Thesis: *"Mapping of Olfactory Responses to CO₂ in the Adult Rat Olfactory Epithelium"* (Advisor: E. Lee Coates)

TEACHING EXPERIENCE

Elizabethtown College (Elizabethtown, PA)

2010 – Present Assistant Professor Biology Department
Bio 111/111L: Molecules, Cells and Animal Systems
Bio 201/202: Human Anatomy and Physiology I & II
Bio 341: Comparative Mammalian Anatomy
Bio 324: General Physiology
Bio 324L: General Physiology Lab
Bio 314: Behavioral Neurobiology
Bio 481: Directed Study
2013: Pediatric Cardiovascular Disease
Cog Sci 400: Cognitive Science Capstone Course

Research Mentor – Allie Martin '12 (Biology Independent Study)
Dan Silver '12 (Biology Independent Study)
Alisha Martin '13 (Biology Honors Thesis)
Brittany Benjamin '13 (Biology Honors Thesis)
Christopher Macomb '13 (Biology Honors Thesis)
Madison Brown '14 (Biology Honors Thesis)
Matthew Zdradzinski '14 (Biology Independent Study)

Honor Thesis Committee Member (Non-Biology, Department Listed)
Liz Shea '12 (Music Therapy)
Joanna Davis '13 (Occupational Therapy)
Emalee Hartman '13 (Occupational Therapy)
Kayla Swope '14 (Occupational Therapy)

Franklin and Marshal College (Lancaster, PA)

2009-2010 Visiting Assistant Professor Biology Department
Fall 2009 Bio 373: Neural Control of Movement (Lecture & Lab)
Fall 2009 FND 158: Biology, Ethics and Society (Lib. Studies)
Spring 2010 Bio 240: Introductory Neuroscience (Lecture & Lab)
Spring 2010 Bio 391: Directed Reading: Kinesiology

Research Mentor Nitzy Bustamante '11 (Biology Independent Study)
Geoff Dreyer '10 (Psychology Collaborative Res.)

Saint John Fisher College (Pittsford, NY)

2007-2008 Adjunct Professor Biology Department
Fall 2007 Human Anatomy Lab Instructor (School of Nursing)
Spring 2008 Zoology Lab Instructor
Fall 2008 Comparative Chordate Anatomy (Lecture & Lab)

University of Rochester (Rochester, NY)

- Spring 2008 & 2009 Guest Lecturer on Cerebellar Structure and Function
Integrative and Systems Neuroscience (NSC 531)
Interdepartmental Graduate Program in Neuroscience
- Summer 2008 Student Mentor (Sheena Czipri- Bucknell University)
Biomedical Sciences Summer Research Experience
- Student Mentor (Luke Shaw- U of Rochester)
Center for Visual Sciences Summer Research
- Summer 2006 Student Mentor (Nick Hindy-Cornell University)
Center for Visual Sciences Summer Research
- Fall 2004 & 2005 Teaching Assistant: Mind, Brain, & Behavior
2nd Year Medical School Curriculum

Allegheny College (Meadville, PA)

- 2001-2002 Teaching Assistant
Junior Seminar
Supervisor: E. Lee Coates
- 2000-2002 Teaching Assistant
Physiology of Psychology Laboratory
Supervisors: Jeffery Hollerman and Jeffery Cross
- Summer 2000 Teaching/Resident Assistant
HHMI-Neuroscience High School Summer
Experience
Supervisor: Jeffery Cross

RESEARCH APPOINTMENTS

University of Pittsburgh (Pittsburgh, PA)

- Summer 2013 Visiting Scholar Department of Otolaryngology
(Sponsor: Neeraj Gandhi)

RESEARCH INTERESTS

Neural mechanisms underlying sensorimotor adaptation/motor learning
Midbrain and cerebellar mechanisms underlying eye-head coordination
Development and aging of sensory and motor systems
Bioethics (specifically neuroethics)
History of science and science education

HONORS AND AWARDS

- 2013 Finalist for Richard Crocker Outstanding Service to Students Award
(Elizabethtown College)
- 2004-2006 NIH "Training in the Visual Sciences" Fellowship,
University of Rochester (PI: David Williams)
- 2002-2004 NIH T32 Interdepartmental Neuroscience Training Fellowship
University of Rochester (PI: Howard Federoff)
- 2002 Association for Chemoreceptive Sciences (AChemS) travel grant
Sponsor: E. Lee Coates
- 2001 Faculty for Undergraduate Neuroscience (FUN) travel grant
Society for Neuroscience Meeting
Sponsor: E. Lee Coates
- 2001 HHMI-Summer Undergraduate Research at Emory (SURE)
Emory University, Atlanta, GA
Project: Spatial distribution of rodent olfactory epithelial responses
to CO₂
Sponsor: John W. Scott, Department of Cell Biology
- 2000 HHMI-Summer Research Fellowship
Allegheny College, Meadville, PA
Project: Response of rodent olfactory epithelium to CO₂
Sponsors: E. Lee Coates and Jeffery Cross

INVITED TALKS

- November 2013 Millersville University
Title: Gaze Adaptation as a Window into the Neural
Mechanisms of Motor Learning
Department of Biology, Animal Behavior Colloquium
- July 2012 Harrisburg Area Community College (HACC)
Title: Anatomy of the Nervous System
Guest Lecturer in Human Biology Course (Bio 111)
- March 2012 Janelia Farm - Howard Hughes Medical Institute
Title: Dissecting the Neural Circuitry of Target
Capture Across Species

October 2011	Harrisburg Area Community College (HACC) Title: Neuropathology – The Basics Guest Lecturer in Human Biology Course (Bio 111)
May 2011	Harrisburg Area Community College (HACC) Title: Neuropathology – The Basics Guest Lecturer in Human Biology Course (Bio 111)
February 2009	Franklin and Marshall College Title: Primate Gaze Adaptation: Gaze, Eye, or Head?
May 2006	Annual Neuroscience Retreat, University of Rochester Title: Human Gaze Adaptation: Gaze, Eye, or Head?

DEPARTMENT AND UNIVERSITY SERVICE

Elizabethtown College

2013	Faculty Observer to Board of Trustees Meeting Winter Meeting: January 31-February 2
Spring 2013	Goldwater Scholarship Nominations (<i>ad hoc</i> reviewer)
2012-2015	Academic Council 2012-14: Representative on Core Committee
2012-present	Cognitive Science Minor Director
2012-present	Open Book Discussion Leader
Spring 2011-present	Health Professions Advisory Committee (HPAC) Summer 2013 – present: Chair 2012 –present: Website Administrator (with Janice Davis, Biology Coordinator) 2012-present: Medicus (premed club) Advisor
2011-2013	Faculty Athletics Mentor (Men's Cross Country Team)
2011-2014	Athletics Committee
2011-Present	Science in Motion Advisory Committee
2011- Present	Scholarship and Creative Arts Day Committee 2012-present – Program Subcommittee

2011-2012 Elizabethtown College Strategic Plan – Community Working Group

Franklin & Marshall College

2009-2010 Biological Foundations of Behavior Program Committee

University of Rochester

2005-2006 Neurobiology & Anatomy Admissions Committee Student Representative

2005-2009 Neurobiology & Anatomy Web Committee Student Representative

2005-2006 Center for Visual Sciences Boynton Colloquium Student Representative

2004-2006 Neuroscience Student Seminar Committee Member

2002-2003 Graduate Student Society Representative Neuroscience Cluster

PUBLIC OUTREACH

2012-2013 Qualified Scientist for Olivia Ober (Senior research project at Pequea Valley High School)

PUBLICATIONS

Journal Articles:

A.L. Cecala, I. Smalianchuk, SB Khanna, MA Smith, NJ Ghandi (in preparation). Color Cannot be Used as a Contextual Cue During Rhesus Monkey Saccadic Adaptation. *Vision Research*
Estimated Submission Date: December 2013

*Martin, A, *Benjamin, B,*Macomb, C, **Cecala, A.L.** (in preparation). Can color be used as a context cue during human saccadic adaptation? *BIOS*
Estimated Submission Date: October 2013

A.L. Cecala (in review). Separating Self From Environment: Using a classic paper by Bell as a platform for discussing the role of corollary discharge-like signals in sensory perception and movement control. *Adv. Physiol. Ed.*

*E. Shea, G.A. Behrens, **A.L. Cecala**. (in press). A Survey of Music Therapists' Understanding of the Neurobiology of Alzheimer's Disease. *J. Music Therapy*

A.L. Cecala (2012). Using a classic paper by Evarts as a platform for discussing cortical control of skeletal muscle in awake, behaving primates. *Adv. Physiol. Ed.*, 36:246-50.

A.L. Cecala, E.G. Freedman (2009). Head-Unrestrained Gaze Adaptation in the Rhesus Macaque. *J. Neurophysiol*, 101(1):164-83

A.L. Cecala, E.G. Freedman (2008). Amplitude Changes in Response to Target Displacements During Human Eye-Head Movements, *Vision Research*, 48(2):149-66.

E.G. Freedman, **A.L. Cecala** (2008). Oblique gaze shifts: head movements reveal new aspects of component coupling. In: Leigh RJ, Kennard C (eds) *Using eye movements as an experimental probe of brain function*. Elsevier, Amsterdam.

Abstracts (professional conferences):

A.L. Cecala, S. Quessy, E.G. Freedman. Amplitude Changes in Response to Target Displacements During Rhesus Macaque Eye-Head Movements Program *Abstract Viewer/Itinerary Planner*. San Diego, CA: Society for Neuroscience, 2007. Online.

A.L. Cecala, E.G. Freedman. Amplitude Changes in Response to Target Displacements During Human Eye--Head Movements Program No. 858.13. *2005 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience, 2005. Online.

A.L. Cecala, E.L. Coates, and J.W. Scott (2002) Mapping Olfactory Responses to CO₂ in Adult Rats. *Chemical Senses*.

Coates E.L. and **A.L. Cecala** (2001) Topical inhibition of nasal carbonic anhydrase in rats attenuates the olfactory receptor response to CO₂. *Society for Neuroscience Abstracts*. 27:273.09

A.L. Cecala, D.B. Hammers, and E.L. Coates (2001) CO₂-sensitive olfactory receptors in rats. *Chemical Senses*. 26(8):1094.

Abstracts (Elizabethtown College Scholarship and Creative Arts Day):

*Benjamin, B, *Martin, A, *Macomb, C, **Cecala, AL** (2013). Can color be used as a context cue during saccadic adaptation?

*Davis, J, *Hartmann, E, **Cecala, AL**, Waltermire, D (2013). Is the war really over? PTSD's Aftermath.

E. Shea, G.A. Behrens, **A.L. Cecala**. (2012). A Survey of Music Therapists' Understanding of the Neurobiology of Alzheimer's Disease.

Book Reviews:

A Review of *Beyond the Brain: How Body and Environment Shape Animal and Human Minds* by Louise Barrett. *The Journal of Undergraduate Neuroscience Education (JUNE)*, In Press

A Review of *Creating Modern Neuroscience: The Revolutionary 1950s* by Gordon Shepherd. *The Journal of Undergraduate Neuroscience Education (JUNE)*, Spring 2013, 11(2):R1-R2

*** Indicates Elizabethtown College Student**

GRANTS

Grant (Elizabethtown College) - \$3,500 – Dean's Grant for "Human Anatomy & Physiology Lab Manual Illustration" - Funded

Faculty Grant (Elizabethtown College) - \$2,825 – "Effects of Aging, Context, and Reward on Motor Learning in the Human Oculomotor System" - Funded

Grant (Elizabethtown College) - \$3,000 – Dean/OSRP Grant for "University of Pittsburgh Visiting Scholar Housing Support" - Funded

Sloan Foundation Fellowship - \$50,000 – Not Funded

MANUSCRIPT REVIEW

Open Journal of Neuroscience

BIOS (Tri Beta journal for undergraduate biological research)

Journal of Undergraduate Neuroscience Education (JUNE)

GRANT REVIEW

Spring 2013 National Science Foundation (NSF) - Pre-Approval Review Panel

Fall 2013 National Science Foundation (NSF) – Full Length Review Panel

2010, 2011 Pennsylvania Academy of Sciences

PROFESSIONAL ORGANIZATIONS

2000-2002 Association for Chemoreceptive Sciences Student Member

2005- Pres. Society for Neuroscience Member

2010- 2011 Lehigh Valley Society for Neuroscience Member

2001- Pres. Faculty for Undergraduate Neuroscience Member

2011- 2012 Institute on Religion in an Age of Science Member

1999- Pres. Tri-Beta Member
Allegheny College (Phi Epsilon Chapter)
President (2000-2001), Vice President (2001-2002)

2000- Pres. Psi Chi Member
Allegheny College, Treasurer (2001-2002)

WORKSHOPS/INVITED CONFERENCES ATTENDED

July 2013 Gordon Conference – Eye Movements: The Motor System that Sees the World (Stonehill College, Easton, MA)

February 2013 Council for Undergraduate Research - Dialogues (Washington, DC)

REFERENCES:

Dr. Edward G. Freedman, Associate Professor of Neurobiology and Anatomy

University of Rochester
School of Medicine and Dentistry
601 Elmwood Ave, Box 603
Rochester, New York 14642
phone: 585.273.1892
email: ed_freedman@urmc.rochester.edu

Dr. Marc Schieber, Professor of Neurology

University of Rochester
School of Medicine and Dentistry
601 Elmwood Ave, Box 673
Rochester, New York 14642
phone: 585.275.3369
email: mhs@cvs.rochester.edu

Dr. Theresa Westbay, Associate Professor of Biology

Department of Biology
St. John Fisher College
3690 East Avenue
Rochester, New York 14618
phone: 585.385.8156
email: twestbay@sjfc.edu

Dr. Mark Olson, Associate Professor

Department of Biology
Box 3003, Franklin and Marshall College
Lancaster, PA 17603
phone: 717.291.4323
email: mark.olson@fandm.edu

Dr. Thomas E. Murray, Professor of Biology

Department of Biology
Elizabethtown College
One Alpha Drive
Elizabethtown, PA 17022
phone: 717.361.1474
email: murrayte@etown.edu