

Anna K. Eaton, Ph.D.

Phone or text: Please email for number

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Education

- 2015- 2018 Coursework: Teaching Elementary Piano
Level 8 Piano
Level 8 Theory
Royal Conservatory of Music, Toronto, Canada
- 2014 Coursework: Curriculum and Design K-12
University of Massachusetts, Lowell, MA
- 2002-2008 Ph.D., Department of Cell Biology and Molecular Genetics,
University of Maryland, College Park, MD
Concentration: Biochemistry, Protein Chemistry, Enzyme Kinetics, Microbiology
- 1998-2002 B.S., Biological Sciences, Magna Cum Laude
Duquesne University, Pittsburgh, PA
Minor: Mathematics and Biochemistry
- 1994-1998 Charles F. Brush High School, Lyndhurst, OH

Teacher Certification

- 2018 Certificate, Elementary Piano Teaching Specialist
Royal Conservatory of Music, Toronto, Canada
- 2013 Alternative Resident Educator License (OH3081640)
Ohio Department of Education
Subjects: Life Sciences (132030) and Physical Science/Chemistry (132150)
Grades 4-12

Teaching Experience

2015-present *Piano Instructor*

I teach piano, theory, and composition to beginning piano students. I work with elementary, middle school, high school and adult students. Using the curriculum developed by the Royal Conservatory of Music, I help develop a well-rounded musician equipped with key musicianship skills such as sight reading, ear training, harmonization, and improvisation. I also focus on developing good, tension-free technique using repertoire and etudes from the Baroque, Classical, Romantic and Modern Era. In addition, I teach theory and music history in private and group lesson settings.

- 2010-present *Science Tutoring, Science Matters, University Heights, OH*
This is my tutoring business. I am a privately hired tutor for students needing additional help in biology, chemistry, and physics. I also publish and maintain the website: <http://science-matters.org>.
- 2016-2018 *Science Teacher, Beaumont School, Cleveland Heights, OH*
Courses: AP Biology, Honors Biology
I was responsible for teaching biology and preparing students for the advanced placement biology exam. 89% of my students scored a 3 or higher on the AP Exam. In addition to my regular teaching responsibilities, I directed and advised students in individual research projects for the school science fair. Two of these students went on to the district and state level to present their research.
- 2013-2015 *Science Teacher, REAL-Early College, Cleveland Heights-University Heights High School, Cleveland Heights, OH*
Courses: Honors Chemistry, Chemistry, and Physical Science
In addition to my regular teaching responsibilities, I was responsible for curriculum development, including development of curriculum maps, labs, assessments and daily lesson plans for the biology, chemical and physical sciences. As part of the Early College program, I worked as part of a team of faculty at Cleveland Heights High School and John Carroll University, to design and implement this new program, including determining which students were accepted into the program, mentoring and advising students, and developing the criteria needed to gain admission to John Carroll University.
- 2009-2013 *Adjunct Professor, Lakeland Community College, Kirtland, OH*
BIOS 2600: Bioscience Manufacturing Processes
I am responsible for both the lecture and lab component of this 5 credit semester course. The lecture component focuses on fermentation processes used within industry and research. Topics include microbiology, molecular biology, biochemistry, kinetics, and instrumentation. I am responsible for organizing, managing, preparing and teaching the laboratory portion of the class. Lab topics include basic microbiology and molecular biology techniques as well as basic chemistry techniques. A sampling of the labs includes lactic acid, riboflavin and acetic acid production.
- BIOS 2700: Microbiology*
I was responsible for teaching both the lecture and lab components to this 4 credit semester course.
- 2010 *Adjunct Professor, Lake Erie College, Painesville, OH*
Biology 230: Human Nutrition
I was responsible for independently developing this new online course.

- 2006 *Graduate Teaching Assistant, University of Maryland, College Park*
BSCI 412: Microbial Genetics
I taught the laboratory component to this upper-level biology major's course. I was responsible for developing, optimizing, and organizing a significant portion of the lab course (i.e. developing student protocols, prepping the labs and running the lab prep meetings). I was awarded the department's distinguished teaching award for my work with this class.
- 2005 *Graduate Teaching Assistant, University of Maryland, College Park*
BSCI 424: Pathogenic Microbiology
I was responsible for preparing and teaching the laboratory component of this upper level biology major's course. Topics include an assessment of the tests and techniques required for the identification and isolation of various types of pathogenic bacteria.
- 2003 *Graduate Teaching Assistant, University of Maryland, College Park*
BSCI 222: Genetics
I taught discussion sections for this sophomore level biology major's course. I was responsible for reviewing lecture material in a formal setting and leading an informal discussion to review problem sets.

Publications, Dissertation, and Thesis

- Eaton, A.K.** and R.C. Stewart. 2010. Kinetics of ATP and TNP-ATP Binding to the Active Site of CheA from *Thermotoga maritima*. *Biochemistry*. **49**(27):5799-809.
- Eaton, A.K.** and R.C. Stewart. 2009. The Two Active Sites of *Thermotoga maritima* CheA Dimers Bind ATP with Dramatically Different Affinities. *Biochemistry*. **48**(27): 6412-22.
- Eaton, A.K.** 2008. Binding Interactions in the Bacterial Chemotaxis Signal Transduction Pathway. *Doctoral Dissertation, Department of Cell Biology and Molecular Genetics, University of Maryland, College Park*
- Kolesar, A.M.** and C.L. Mitchelmore. 2003. Oxidative Stress at the Onset of Symbiosis in the Coral *Fungia scutaria*. University of Hawaii, Technical Reports for the Edwin Pauley Foundation. **43**: 66-74.
- Kolesar, A.M.** 2002. Gene Regulatory Functions of the CspE Protein in *Escherichia coli*. *Senior Honors Thesis, Department of Biological Sciences, Duquesne University, Pittsburgh*

Research Experience

- 2008 - 2009 *Postdoctoral Fellow, Laboratory of Dr. Donna Driscoll, Department of Cell Biology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH*
I investigated the mechanisms that regulate selenoprotein biosynthesis in eukaryotes.
- 2003 - 2008 *Graduate Research Fellow, Laboratory of Dr. Richard Stewart, Department of Cell Biology and Molecular Genetics, University of Maryland, College Park, MD*
I analyzed the mechanism of ATP binding to CheA, the histidine kinase involved in the bacterial chemotaxis signal transduction pathway.
- 2002 *Summer Graduate Fellow, Laboratory of Dr. Carys Mitchelmore, Marine Estuarine Environmental Sciences, Chesapeake Biological Laboratory, University of Maryland.*
I investigated the effects of oxidative stress in corals in response to anthropogenic stressors.
- 2000 - 2002 *Undergraduate Research Assistant, Laboratory of Dr. Nancy Trun, Department of Biological Sciences, Duquesne University.*
I found non-essential genes in the *E. coli* genome regulated by CspE, a protein belonging to the cold shock-like family of proteins.
- 2000 *Undergraduate Summer Research Fellow, Laboratory of Dr. Mitch Johnson, Department of Chemistry and Biochemistry, Duquesne University.*
I developed an internal standard to determine the mass percent of natural amides in tissue, cell and serum samples.

Teaching, Research, and Academic Awards

- 2006 Distinguished Teaching Award, Department of Cell Biology and Molecular Genetics, University of Maryland, College Park
- 2002 John. C. Johnson Award for Excellence in Student Research, Tri-Beta Biological Honor Society, Houston, Texas
- 2002 Honor Award for Outstanding Achievement in Biological Sciences, Bayer School of Natural and Environmental Sciences, Duquesne University
- 2001 - 2002 Who's Who among Students in American Universities and Colleges
- 2001 Outstanding Program of the Month, Office of Residence Life, Duquesne University
- 1998 - 2002 Dean's List First Honors, Duquesne University
- 1998 - 2001 Director of Athletics Honor Roll, Duquesne University
- 1998 Advanced Placement Scholar, Advanced Placement Program