Elizabeth Co, PhD
Senior Lecturer

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Boston, MA 02215

EDUCATION

PhD in Biomedical Sciences University of California, San Francisco 2008
BA with High Honors in Biology and Education, Mount Holyoke College, South Hadley, MA 2002

TEACHING EXPERIENCE

Senior Lecturer, Boston University Fall 2012-present
Human Physiology, Human Anatomy, Infectious Disease, Introductory Biology, Systems Physiology
Lecturer, University of California, Berkeley Summer 2011
Human Anatomy (cadaver-based)
Adjunct Professor, Diablo Valley College 2009-2012
Human Anatomy (cadaver-based), Human Physiology, Cellular and Molecular Biology, Human Biology and Fundamentals of Biology
Adjunct Professor, Santa Rosa Junior College 2010-2011
*Human Physiology and Human Biol*ogy
Assistant Course Director, School of Dentistry, UC San Francisco 2008-2009
Structure of Cells, Tissues and Organs, Human Pathophysiology
Lecturer, School of Dentistry, UC San Francisco 2007-2009
Histology and Human Anatomy
Lab Director/Instructor, School of Dentistry, UC San Francisco 2007-2009
Tissues and Organs and Human Anatomy
Laboratory Instructor, University of San Francisco 2008
Human Physiology
Teaching Assistant, School of Pharmacy, UC San Francisco 2005
Immunology
Lab Instructor, Mount Holyoke College 2001
General Biology
Student Teacher, Bronx High School of Science 2001
AP Biology

RESEARCH EXPERIENCE

Co-Principal Investigator, Boston University 2017-2019
Using ExamSoft to Improve Student Metacognition and Program Learning Outcomes in Biology. IRB Protocol number: 4627X
Co-Principal Investigator, Boston University 2013-2014
Study of active learning methods as compared to traditional lecture methods.

Postdoctoral Fellow, UC, San Francisco 2008-2009
Investigating the function of maternal macrophages in the human decidua during normal and pathological pregnancies.
Graduate Student, UC, San Francisco 2004-2008
Investigated the interaction between uterine Natural Killer cells (maternal) and invasive cytotrophoblasts (fetal) in first trimester human pregnancies.
Research Associate, UC, San Francisco Laboratory of Jay Levy, MD. 2002-2004
Investigated the role of alpha-defensins in HIV infection, and the search for the identity of CD8+ cell non-cytotoxic antiviral factor (CAF).
Undergraduate Researcher, Mount Holyoke College Laboratory of Sarah Bacon, Ph.D. 2001-2002
Investigated the role of histocompatibility in rat pregnancy
Undergraduate Researcher, Johns Hopkins University Laboratory of Denise Montell, Ph.D. 2000
Investigated cell motility and migration in Drosophilia melanogaster

INVITED LECTURES

BU Rhett Talks 2018
McGraw-Hill Learning Science Symposium for Anatomy and Physiology—Keynote Speaker 2017
McGraw-Hill Learning Science Symposium for Majors Biology—Keynote Speaker 2017
BU Undergraduate Public Health Association National Public Health Week Selected Speaker 2016
Guest Lecturer, Immunology (BI 385) Boston University 2014-2016
Boston University Academy, All School Meeting—Student Choice Speaker 2013
Buteyko Conference, Boston University Medical Center 2013
Guest Lecturer, Immunology, St. Mary's College 2008

PROFESSIONAL AND COMMUNITY SERVICE WITHIN BOSTON UNIVERSITY

Creation of the Eating and Teaching (EAT) lunch seminar series 2018-present
Provost's Faculty Teaching Awards Committee 2018-2019
Undergraduate Research Opportunity Program (UROP) Faculty Advisory Committee 2018
Biology Department Program Assessment Committee 2018
Biology Department Postdoc/Lecturer Search Committee 2018
Biology Department Faculty Search Committee 2017
Biology Department Program Assessment Committee 2018-present
Biology Department Advising Committee 2016-present
Academic Advising 2013-present
Premedical/Predental Advisory Board 2016-2018
Faculty Mentor for Teaching As Research (TAR), Michaela Smith 2015-2016
Faculty Mentor for Honors in Biology, Teresa Cheng (class of 2016) 2015-present
Faculty Mentor for Research in Biology (BI 391, 392, 491, 492) 2013-present
Jung Choi (class of 2014)
Shaifali Verma (class of 2014)
Matthew McIntyre (class of 2015)
Lynne Cherchia (class of 2017)
Brian Chirn (class of 2018)
Lynden Lee (class of 2017)

Maxime Vounatsos (class of 2018)
Deyar Dashti (class of 2018)
Anushk Gupta (class of 2020)
Grace Heavey (class of 2020)

Mentor for BPS Community Service Program	2013-2018
Educational Resource Center, Boston University Tutoring and Video Production	2012-present

PROFESSIONAL AND COMMUNITY SERVICE OUTSIDE OF BOSTON UNIVERSITY

Howard Hughes Medical Institute Faculty Mentoring Group	2018-present
Reviewer American Biology Teacher	2018-present
McGraw-Hill Digital Author	2017-present
Cengage Learning, Content Author/Reviewer	2014-present
Pearson Publishers, Content Writer/Reviewer	2013-2017
Sinauer Associates, Content Reviewer	2016
Brooks/Cole Publishers, Textbook and Content Reviewer	2013
Pearson Publishers, Textbook Reviewer	2013
Jones & Bartlett Learning, Textbook Content Writer	2011
Diablo Valley College, Instructors Workshop Development and Education	2010
National Youth Leadership Forum on Medicine, Volunteer Scientist	2007
Hilltop High School (San Francisco), Volunteer Scientist	2007
Center for Gender Equity, UCSF, Volunteer Lecturer	2007
Lowell High School Medical Explorers Club Post 496 (San Francisco), Volunteer Lecturer	2006

PUBLICATIONS

Note: Name change from Elizabeth Mack to Elizabeth Co in 2007.

Co, E. (2019). The power of practice: adjusting curriculum to include emphasis on skills. In Press. Journal of College Science Teaching.

Co, E. and Talbot, J. with contributions from Oppelt, S., Smith, M. and Angell, J. Microbiology Lab Manual. Hayden-McNeill, 2017, 2018, 2019.

Co, E. with Oppelt, S. and Smith, M. BI 114 Lab Manual, Human Infectious Disease. 2016.

Co, E. with Oppelt, S. BI 114 Lab Manual, Human Infectious Disease. 2015.

Co, E. BI 114 Lab Manual, Human Infectious Disease. 2014.

Co, E., Gormley, M., Kapidzic, M., Rosen, D.B., Stlop, H.A.R., Scott, M.A., McMaster, M., Lanier, L.L., Barcena, A., Fisher, S.J. (2013). Maternal Decidual Macrophages Inhibit NK Cell Killing of Invasive Cytotrophoblasts During Human Pregnancy. Biol Reprod, 88(6):155, 1–9.
A Faculty of 1000 recommended article

Featured in Saey, T. "Life Support—Studies reveal the placenta's crucial role in healthy pregnancies" Science News Magazine June 15, 2013; Vol.183 #12.

Mackewicz, C., Yuan, J., Tran, P., Diaz, L., **Mack, E.,** Selsted, M., Levy, J. (2003) α-Defensins can have anti-HIV activity but are not CD8 cell anti-HIV factors. AIDS. 17: F23-32.

Li, J. Z., **Mack, E.C.,** Levy, J.A. (2003) Virucidal efficacy of soap and water against human immunodeficiency virus in genital secretions. Antimicrob Agents Chemother. 47 (10): 3321-2.

MEETING POSTERS & PRESENTATIONS

Co, E. Workshop: Adapting Textbook Case Studies to Use as Active Learning Activities in Anatomy and Physiology. Human Anatomy and Physiology Society Annual Conference.

McIntyre, M., **Co, E.,** Knight, M., Spilios, K. Improving Learning Outcomes Through Active-Learning in Introductory Biology. (Society of College Science Teachers National Convention, Boston, MA 2014).

Co, E., Kapidzic, M., Rosen, D.B., Stlop, H.A.R., Scott, M.A., Lanier, L.L., Fisher, S.J. Formation of an immunotolerant uterine niche for human placental cytotrophoblasts. (Keystone Symposia on Frontiers in Reproductive Biology and Regulation of Fertility, Santa Fe, New Mexico. 2009).

Bacon, S., Eisley, R., **Mack, E.,** Clark, M. Abstract: Maternal immune challenge stimulates the growth of rat embryos who differ from their mother within the major histocompatibility complex. (Society for the Study of Reproduction. Cincinnati, OH. 2003).

HONORS, AWARDS AND GRANTS

Nominated for the Robert Frost Cherry Award (Nationwide Teaching Award) 2018

Metcalf Award for Excellence in Teaching 2018

BU Center for Teaching and Learning Learning Technologies Development Grant
Co, E., Spilios, K., Beffert, U. Using ExamSoft to Improve Student Metacognition and Program Learning Outcomes in Biology. Total award: $67,000. 2017-2019

BU Assessment Practice and Innovation Mini Grant (E. Co and K. Spilios) 2017-2018
BU Center for Excellence & Innovation in Teaching, Course Development Grant 2015
BU Center for Excellence & Innovation in Teaching, Course Development Grant 2013
BU Center for Excellence & Innovation in Teaching, GUTS Grant (E. Co and K. Spilios) 2013
NIH R21 Grant (S. Fisher and E. Co) 2008
Mount Holyoke College Mary Lyon Scholar, High Honors 2002

Mount Holyoke College Abby Howe Turner Award for Excellence in Biology 2002

Active Learning Curriculum Development (Selected)

Created Anatomy & Physiology learning activities, implemented by Learning Assistants 2016
Developed, edited and published instructional microbiology videos 2015 & 2016
Developed a small library of instructional Anatomy videos 2015-present
Created and implemented Physiology case studies for use in lecture 2014 & 2015

Association Memberships

National Science Teachers Association 2013-Present
Society for College Science Teachers 2013-Present
Human Anatomy and Physiology Society 2009-Present
Society for Natural Immunity 2005-2009