

## Curriculum Vitae

### Elena Maria Virginia Brezynski (née Thomas)

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**Nationality:** British, with permanent US residency

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#### Research Interests

Chronobiology, Melatonin, Science Education.

#### Education

1993-1994 Post-graduate Certificate in Science Education (teaching diploma),  
Institute of Education, London University, UK.

1985-1988 PhD Physiology, Monash University, Melbourne, Australia  
Thesis title: Effects of melatonin and light on female rat  
circadian rhythms. Supervised by Professor Roger Short FRS  
Recipient of Monash Graduate Scholarship 1985-1988.

1981-1984 BA Honours Zoology, St. Catherine's College, Oxford University, UK  
Elective modules: invertebrate and vertebrate zoology, genetics,  
entomology, ecology and animal behaviour.

#### Professional Experience

2011- present **Assistant Professor of Biology** Seattle Pacific University,  
teaching BIO2129 and BIO2130: Anatomy and Physiology, BIO2102:  
Animal Biology, BIO1100: Non-Majors General Biology,  
BIO2569/2571: Introductory Biology for Integrated Science students.  
Student Advisor for Biology Majors.

2015- present **Founder and Director of the BioCORE Scholars Program**  
supporting underrepresented students in Biology at SPU.

2016-present **AARC committee member.**

Fall quarter 2010 **Adjunct Biology Professor** at Seattle Pacific University.

2009- 2011 **Adjunct Biology Instructor** at North Seattle Community College and  
Seattle Central Community College, teaching BIOL241 and 242:  
Anatomy and Physiology and BIOL160: General Biology  
Spring 2011 developed online hybrid BIOL160 course at NSCC.

2001-2008 **Biology Teacher** at North London Collegiate School, consistently  
ranked in the top 10 best secondary schools in the UK (England &  
Wales National League Tables), teaching International Baccalaureate

Biology to 11<sup>th</sup> and 12<sup>th</sup> grade, university entrance Biology (AS) to 11<sup>th</sup> grade, Biology and Integrated Science to 6<sup>th</sup>-10<sup>th</sup> grade.

2000- 2001 **Biology Teacher** at City of London School for Girls, Barbican, London, England, teaching university entrance Biology (A level) to 11<sup>th</sup> and 12<sup>th</sup> grade, Biology and Integrated Science to 6<sup>th</sup>-10<sup>th</sup> grade.

1989-1992 **Post-doctoral Research Scientist**, working with Professor Irving Zucker, Department of Psychology, University of California, Berkeley, USA. Investigated hormonal, photoperiodic and temperature effects on circadian and circannual rhythms. Special area of interest: chronobiological effects of light, melatonin and the pineal gland on activity and reproductive rhythms of Djungarian hamsters and golden-mantled ground squirrels. Studied effects of torpor and falling body temperature on circadian timing systems. Presented at a variety of national and international conferences e.g. Gordon Conference, Circannual rhythm symposium Max Planck Institut, Germany, Society for Research on Biological Rhythms, Neuroscience.

#### **Internal Grants awarded at SPU**

2014 Provost Innovation grant: Developing BIO2571: LAs & active learning  
2015 Provost Innovation grant: Creating BioCORE Scholars Program, a pipeline program for underrepresented students in Biology.  
2017 Innovation seed grant: BioCORE Scholars program.

#### **Professional Development Courses**

November 2014 Attendee at Learning Assistant Alliance workshop at University of Colorado, Boulder to develop an LA program in the SPU Biology department (implemented in Spring 2015).  
March 2011 Completed Angel training to develop and deliver online component of hybrid Biology 160 course at North Seattle Community College.

#### **Recent Poster Presentations**

September 2018 **The BioCORE Scholars Program: improving academic performance and persistence of underrepresented students in Biology** Elena Brezynski, Eric Long, Mary Jayne Allen and Derek Wood presented at: NAMME (National Association for Medical Minority Educators), Miami, FL  
November 2017 **Learning Assistant workshops: part of the BioCORE Scholars Program for underrepresented and first generation students in Biology.** Elena Brezynski, Tim Nelson and Derek Wood presented at International Learning Assistant Conference, University of Colorado.

#### **Selected Publications**

Hiebert S.M., E.M. Thomas, T.M. Lee, K.M. Pelz, S.M. Yellon and I.Zucker

Photic entrainment of circannual rhythms in golden-mantled ground squirrels: role of the pineal gland.  
J.Biol. Rhythms, 15:126-34, 2000

Bittman E. L. , E. M. Thomas and I. Zucker  
Melatonin binding sites in sciurid and hystricomorph rodents: studies on ground squirrels and guinea pigs.  
Brain Research, 648:73-79, 1994

Thomas, E. M., M. E. Jewett and I. Zucker  
Torpor shortens the period of Siberian hamster circadian rhythms.  
American Journal of Physiology, 1993

Zucker, I., E. M. Thomas and T. M. Lee  
Temperature dependence of mammalian circadian rhythms.  
In Discussions in Neuroscience, 7:48-51, 1992

Thomas, E. M. and S. M. Armstrong  
Effect of ovariectomy and estradiol on the unity of female rat circadian rhythms.  
American Journal of Physiology, 251:R1241-1250, 1989

Armstrong, S. M., E. M. Thomas and M. J. Chesworth  
Melatonin induced phase shifts of rat circadian rhythms.  
In Advances in Pineal Research, edited by R. J. Reiter and M. Karesek, London, Libbey, pp157-162, 1989

Thomas, E. M. and S. M. Armstrong  
Melatonin administration entrains female rat activity rhythms in constant darkness but not in constant light.  
American Journal of Physiology, 255:R237-242, 1988

### **Church service**

2009-present

**Parishioner and lector** at Our Lady of the Lake Catholic Church, Wedgwood, Seattle WA

2008-2009

**Parishioner and lector** at St.Catherine of Siena, Maple Leaf, Seattle WA