Curriculum Vitae

Gioia Polidori Ph.D. (Gioia Petrighi Polidori)

Associate Professor (Teaching), Department of Biological Sciences Human & Evolutionary Biology

Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California

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last updated October 2021

EDUCATION

September 2012 Ph.D.	Cell Biology. University of Aberdeen, Aberdeen (UK)
November 2008 M.S.	Medical Molecular Genetics. University of Aberdeen, Aberdeen (UK)
March 2007 M.S.	Clinical Nutrition and Dietetics. Università Cattolica del Sacro Cuore, Rome (Italy)
May 2005 B.S. & M.S.	Molecular Biology. University Roma Tre, Rome (Italy)

PROFESSIONAL EXPERIENCE

2021- Associate Professor (Teaching)	University of Southern California, Los Angeles (CA)
2018-2021 Assistant Professor	University of Southern California, Los Angeles (CA)
(teaching)	
2015-2018 Lecturer	University of Southern California, Los Angeles (CA)
2014-2015 Adjunct Faculty	Pasadena City College, Pasadena (CA)
2012-2014 Postdoctoral Scholar	University of California at Los Angeles, Los Angeles (CA)
2008-2012 Teaching Assistant	University of Aberdeen, Aberdeen (UK)
2006-2007 Nutrition Intern	University Hospital Agostino Gemelli, Rome (Italy)

TEACHING

TEACHING EXPERIENCE

Lecturer/Assistant Professor/Associate Professor, University of Southern California, Los Angeles (CA) Graduate Teaching

NURS 500: Bridge Course (Online teaching, 2 units/section) Fa 2016 (2 Sections), Su 2017 (1 section), Fa 2017 (4 sections), Sp 2018 (2 sections)

Undergraduate Teaching

HBIO 409: Metabolic Diseases (Lecture, 4 units). Fa 2015, Fa 2016, Sp 2017, Fa 2017
HBIO 407L: Endocrinology and Metabolism (Lecture, 4 units, 50%). Sp 2019, Sp 2020
HBIO 405: Evolutionary Medicine (Lecture, 4 units, 50%). Fa 2016, Fa 2017
HBIO 405: Evolutionary Medicine (Lecture, 4 units). Fa 2018, Fa 2019
HBIO 401L: Physiology of Movement (Lecture, 4 units 50%). Sp 2015, Sp 2016, Sp 2017, Sp 2018, Sp2020
HBIO 400L: Motor Learning and Control (Lecture, 4 units). Fa 2015, Sp 2017, Sp 2018, Sp 2019
HBIO 370: Genetics & Disease (Lecture and Discussion, 4+2 units). Sp 2018, Sp 2019, Sp 2020
HBIO 360: Nutrition & Disease (Lecture and Discussions, 4+2 units). Sp 2016, Sp 2017, Sp 2018, Sp 2019
HBIO 350: Nutrition & Homeostasis (Lecture and Discussions, 4 units). Sp 2015, Sp 2016, Sp 2017
HBIO 301 L: Human Anatomy (Lecture and Laboratory, 4 units). Sp 2015, Fa 2015, Sp 2016, Sp 2017
HBIO 203 L: Exercise Prescription (Lecture and Laboratory, 2 units). Sp 2015, Fa 2015, Sp 2016
HBIO 202 L: Nutrition and You (Lecture, 4 units). Fa 2018, Fa 2019

Adjunct Instructor, Pasadena City College, Pasadena (CA)

Undergraduate Teaching

Biology 011: (Online/traditional hybrid course, lecture). Fa 2014

Biology 011: (laboratory). Fa 2014 **Nutrition 011:** (online course). Fa 2014

SIGNIFICANT CURRICULAR INNOVATIONS AND ADDITIONS

2020 HBIO Minor in Human Disease

• Developed a new Minor for students interested in pre-health, it will be available as of Fall 2020

2020 HBIO Minor in Biology of Human Movement

• Revamped the old HBIO minor into a new Minor, it will be available as of Fall 2020

2019 HBIO 360: Nutrition and Disease

• Developing laboratory activities to incorporate anatomage tables into case studies

- 2017 HBIO 370: Genetics & Disease (Approved by the UCC Fall 2017. Offered Spring 2018)
- Course created from inception
- Developed problem-based learning activities and debates

2016 HBIO 360: Nutrition & Disease (Approved by the UCC Spring 2016. Offered Fall 2016)

- Course created from inception
- Developed case studies, capstone project and problem-based learning activities

2016 HBIO 405: Evolutionary medicine

- Developed the course with Dr. Bogart as a co-instructor
- Developed a student-driven capstone project

2016 HBIO 203: Exercise Prescription

• Developed a Laboratory Activity focused on agility testing

2016 HBIO 400L: Motor Learning and Control

• Developed a student-driven capstone project in which students articulate an original research question using class results as preliminary data

2015 HBIO 350: Nutrition and Homeostasis

- Redeveloped the course
- Developed student-driven discussions and debates

2015 Podcast: used in HBIO 409, HBIO 400, HBIO 405, HBIO 360, HBIO 350, HBIO 301

• Developed and produced a podcast to demonstrate how to perform a thorough literature search with Pubmed and Ovid medline (with and without conjunctions) and how to create a reference list using RefWorks

2015 HBIO 409: Metabolic Diseases

Course redeveloped with classroom learning activities and a capstone student-driven project

PEDAGOGY & MENTORING-RELATED TALKS

- 2020 "An efficient peer mentoring program to promote professional competency", AAC&U, Jacksonville (FL)
- **2020** "How to edit a video lecture using iMovie", WISE online Teaching Symposium.
- 2019 "Dinner with Dr. Polidori" Interhealth Council, USC, Los Angeles, (CA)
- 2018 "Promoting Global Learning in Science and Engineering" USC, Los Angeles (CA)
- 2018 "Academic Teaching and Research Prospects" SC Health Immersion, USC, Los Angeles (CA)
- **2015** "Use of Classroom Interactive Learning: Is technology conducive to an Engaging Learning Environment? Functionality of Blackboard and Top Hat" USC, Los Angeles (CA)

INVITED LECTURES

2020: "The role of genetics in mental health" Roehampton University, London (UK) -Canceled due to COVID

- **2019:** "Atheroscleoris" for GERO 416 (Spring). USC, Los Angeles (CA)
- 2018: "Cardiovascular Disease" for BISC 150Lxg (Fall). USC, Los Angeles (CA)

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- 2018: "Cardiovascular Disease" for BISC 150Lxg (Spring). USC, Los Angeles (CA)
- 2017 "Cardiovascular Disease" for BISC 150Lxg (Fall). USC, Los Angeles (CA)
- 2017 "Cardiovascular Disease" for BISC 150Lxg (Spring). USC, Los Angeles (CA)
- **2016** "Adipokines and Metabolic Dysfunction" for BISC 450 USC, Los Angeles (CA)
- 2015 "The Amazing Biological Machine" Invited by Interaxon. Lecture to underserved secondary school students to promote STEM disciplines. USC, Los Angeles (CA)

SERVICE

SIGNIFICANT EXTRACURRICULAR INNOVATIONS AND ADDITIONS

Founded the Human Biology Student Association (HBA). Advising and mentoring the organization and contributing to the development of campus activities, seminars and workshops

SEMINARS ORGANIZED

- 2020 "WiSE workshop on ASKAri" organized with the Campus Wellbeing and Education (Spring)
- 2019 "WiSE workshop series for Teaching Faculty" organized with the HBA (Fall)
- 2019 "Interactive Workshop: Breast and Ovarian Cancer" organized with the HBA and Biology Club in collaboration with the Rivkin Center (Fall)
- 2019 "CV workshop" organized with the HBA (Fall)
- 2019 "Creating a successful Med School Application" organized with the HBA (Spring)
- 2018 "What to do with an HBIO degree" organized with the HBA (Fall)
- 2018 "WiSE Teaching Symposium: Professional Development and Teaching Innovations" (Fall)
- **2018** "Inside the Med School Application" organized with the HBA (Spring)
- 2017 "What to do with an HBIO degree" organized with the HBA (Fall)
- 2017 "How to write an undergraduate CV for Medical School" organized with the HBA (Fall)
- 2017 "What to do with an HBIO degree" organized with the HBA (Spring)
- 2017 "How to write an undergraduate CV" organized with the HBA (Spring)
- 2016 "What to do during a gap year?" organized with the HBA (Fall)
- **2016** "Fitness For Finals" organized with the HBA (Spring)
- 2016 "What can you do with an HBIO degree?" organized with the HBA (Spring)
- 2015 "Use of Classroom Interactive Learning: Is technology conducive to an Engaging Learning Environment? Functionality of Blackboard and Top Hat" (Spring)

SERVICE TO THE UNIVERSITY AND THE DORNSIFE COLLEGE OF LETTERS, ARTS & SCIENCES

2020-2021 President of the Dornsife Faculty Council

2019-2020 Vice President of the Dornsife Faculty Council

2019-present Judge for the American Physiological Society Award at the Undergraduate SCymposium

- 2019-present Director of Undergraduate Studies
 - Drafted the Human Biology self-study, approved course equivalency, substitutions, developed an evaluation/mentoring strategy, oversee track/course changes, strategic planning, etc...

2018-2020 Co-Chair, RTPC Teaching and Practice Caucus of the Faculty Council

- Organized and led meetings, drafted reports
- Organized panels on promotion guidelines to foster a mentoring culture
- 2017-2018 Senator, USC Faculty Senate
- Represented Dornsife at the University Senate

Fall 2018-Spring 2019 Volunteered for the Dornsife Signature Undergraduate Experience

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- Attended meetings on the development of the Dornsife Signature Undergraduate Experience
- 2016-2019 Member, Dornsife Trustee Scholarship Selection Committee
- Interviewed candidates
- 2016-2019 Member, Dornsife Presidential Scholarship Selection Committee
- Interviewed candidates
- 2017-2018 Co-Chair, Dornsife Research, Policies and Documentation Caucus of the Faculty Council
- Organized and led meetings, drafted reports
- 2016-2018 Member, Dornsife Faculty Council
- Representing Dornsife Faculty and contributed to the development of resolutions
- 2016-2017 Member, Dornsife Research, Policies and Documentation Caucus of the Faculty Council
- Organized meetings and drafted reports
- 2015-2016 Marshal, Commencement, Biological Sciences
- Organized students' procession and represented the faculty

SERVICE TO THE DEPARTMENT OF HUMAN & EVOLUTIONARY BIOLOGY

2015- present Human Biology Association, Faculty Advisor

- Supervised organization functioning
- 2016-2018 Member, Human & Evolutionary Biology Undergraduate Curriculum Committee
- Discussed and addressed laboratory-related issues
- 2015-present Member, Human & Evolutionary Biology Undergraduate Laboratory Committee
- Contributed to reorganizing and revamping HBIO tracks
- 2017-present Reader, Commencement, Human Biology
- Read HBIO graduates' names at graduation
- 2016-2017 Member, Human & Evolutionary Biology RTPC search committee
- Interviewed candidates and contributed to the discussion and ranking of the candidates

SUPERVISION, TRAINING AND MENTORING

a) General Mentoring:

2015-present Wrote ~15 recommendation letters/semester to support Students' professional development and nominated students for the SCynergy, Milo Don Appleman, Renaissance Scholar and Order of the Torch Award, Latino Association Scholarship.

b) Laboratory Training: Human Embryonic and induced Pluripotent Stem cell culture, RT/qPCR, Flow Cytometry, Western Blot, Immunocytochemistry.

2012-2014 University of California at Los Angeles: *PhD candidates* (1-2 per year): Aimee Flores, Rhys Skelton, Elliot Swartz

2008-2012 University of Aberdeen: *Ph.D. candidates*: Silvia Mazzotta, Maria Joao Lima, Konrad Juczewski
2008-2012 University of Aberdeen: *MS candidates*: Amina Mehanna, Zuzana Hruskova, Sarah Consonni, Vagelis
Polakis, Ben Arnold

PROFESSIONAL

MEMBERSHIPS

EB, Experimental BiologyASN, American Society for NutritionAACU, Association for American Colleges and UniversitiesACSM, America College of Sports Medicine

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AHA, American Heart AssociationSOB, Society of BiologySSCN, Scottish Stem Cell NetworkISSCR, International Society for Stem Cell Research

PROFESSIONAL MEETINGS

Oral presentations

2012 "Palmitate promotes differentiation of embryonic stem cells towards specific adipocyte lineages". **Gioia Petrighi Polidori**. Aberdeen Flow Cytometry Stem Cell Meeting. Aberdeen (UK)

2011 "Fatty acids interact with sex steroid modifying mechanisms to determine white adipocyte lineages". Gioia
Petrighi Polidori and Kevin Docherty. International Consortium of Stem Cell Networks (ICSCN), Toronto (Canada)
2010 "Palmitate promotes differentiation of embryonic stem cells towards specific adipocyte lineages". Gioia
Petrighi Polidori and Kevin Docherty. CRF Conference Diabetes and Obesity: getting to the heart of the matter.
Edinburgh (UK)

2009 "Modelling the effects of nutrients and sex steroids on preadipocyte formation using mouse embryonic stem cells". **Gioia Petrighi Polidori**. Aberdeen Centre for Energy Regulation and Obesity, Aberdeen (UK)

Poster Presentation

2012 Wnt signaling orchestrates first and second heart field differentiation from hESC-derived lateral plate mesoderm. **Gioia Petrighi Polidori**, Natalie Gibb, Andreia Bernardo, Kevin Docherty and Stefan Hoppler. International Society for Stem Cell Research (ISSCR), Yokohama (Japan)

2011 Fatty Acids interact with sex steroid modifying mechanisms to determine white adipocyte lineages. Gioia
Petrighi Polidori and Kevin Docherty. International Society for Stem Cell Research (ISSCR), Toronto (Canada)
2010 Palmitate promotes differentiation of embryonic stem cells towards specific adipocyte lineages. Gioia Petrighi

Polidori and Kevin Docherty. Caledonian Research Foundation (CRF), Diabetes and Obesity: getting to the heart of the matter. Edinburgh (UK)

2009 Role of Retinoic Acid in the Differentiation of mouse embryonic stem cells towards adipocytes. **Gioia Petrighi Polidori** and Kevin Docherty. Caledonian Research Foundation (CRF), Stem cells as therapy. where we have been; where we are and where we are going (and how fast?). Dundee (UK)

2008 The role of the proteasome pathway and chemotherapy drug resistance in breast cancer. **Gioia Petrighi Polidori**, Iain Brown Lena Kastl and Andrew C. Schofield. Scottish Society of Experimental Medicine. Edinburgh (UK)

<u>Attendance</u>

- 2019 Experimental Biology, Orlando (FL)
- 2018 American Association of Colleges and Universities, Global Engagement and Spaces of Practice, Seattle (WA)
- 2018 American Society for Nutrition, annual meeting. Boston (MA)
- **2017** American Association of Colleges and Universities, Transforming STEM higher education: Discovery, Innovation and the value of Evidence. San Francisco (CA)
- 2017 Center for Excellence in Teaching (CET) Teaching with Technology Conference. Los Angeles (CA)
- 2016 Textbook and Academic Author Association (TAAS) Symposium. San Antonio (TX)
- 2015. 18TH Annual Cal State University Symposium on University Teaching. Los Angeles (CA)
- **2015** American College of Sports Medicine (ACSM) Southwest Chapter. Colloquia on Fitness for Finals. Costa Mesa (CA)
- 2015 American College of Sports Medicine (ACSM) National Meeting. San Diego (CA)
- 2012 American Heart Association (AHA) Basic Cardiovascular Science meeting. Los Angeles (CA)

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GRANTS AND AWARDS

- 2019 Women in Science and Engineering (WiSE) Supplemental Faculty Support. (\$ 2,500)
- 2018 Women in Science and Engineering (WiSE) Supplemental Faculty Support. (\$ 2,500)
- 2017 Women in Science and Engineering (WiSE) Supplemental Faculty Support. (\$ 2,500)
- 2017 USC Undergraduate Student Government Professional Fund to sponsor HBA seminar. (Mentor). (\$ 300)
- 2017 USC Undergraduate Student Government Professional Fund to sponsor HBA seminar. (Mentor). (\$ 100)
- 2017 USC Undergraduate Student Government Professional Fund to sponsor HBA seminar. (Mentor). (\$ 300)
- 2016 USC Undergraduate Student Government Professional Fund to sponsor HBA seminar. (Mentor). (\$ 300)
- 2015 USC Undergraduate Student Government Discretionary Startup Fund. (Mentor). (\$ 300)
- 2013 UCLA Clinical and Translational Science Institute CORE funding to support RNASeq project. (\$ 10,000)
- 2012 Institute of Medical Sciences Funding to support Journal Club Expenses. (£ 500)
- **2012** Institute of Medical Sciences Travel Grant to attend International Society for Stem Cell Research meeting in Yokohama (Japan) (£ 600)

2011 International Society for Stem Cell Research (ISSCR). Travel Grant to attend ISSCR meeting in Toronto (Canada). (\$1,000)

2011 Scottish Stem Cell Network (SSCN). Travel fund to present at the International Society for Stem Cell Research in Toronto (Canada). (£ 800)

2007 University of Aberdeen Tuition Scholarship. (£ 4,000)

RESEARCH EXPERIENCE

2012 - 2014: Postdoc, University of California at Los Angeles, Los Angeles (CA)

- Developed a differentiation protocols to obtain cardiovascular progenitors and cardiomyocytes
- Developed a fluorescently labeled cardiac reporter (TBX5) hESC line using TALEN technology
- 2008 2012: PhD candidate. University of Aberdeen, Aberdeen (UK)
- Established a Human Embryonic Stem Cell Laboratory
- Developed novel differentiation protocols for the generation of different cell lineages from mESC

2007 - 2008: M.S. Candidate. University of Aberdeen, Aberdeen (UK)

• Elucidated the role of the proteasome pathway in regulating p27 protein expression in breast cancer drug resistance *in vitro* systems

2003 - 2005: M.S. Candidate. Università Roma Tre, Rome (Italy)

• Molecular engineering of single chain antibody in bacterial strains (*E. coli, A. tumefaciens*) and monocotyledon species (*T. durum, T. aestivum*)

PUBLICATIONS

- Invited Book Co-Author: Pathophysiology in Human Metabolism. (half completed)
- Invited Book Chapter: Chemical and Biochemical Foundations in Advanced Physiology and Pathophysiology: Essentials for Clinical Practice. Springer Publishing Company. *Lead Editor*: Nancy Tkacs, RN, PhD.
- Gioia Petrighi Polidori, Michael A. Lomax and Kevin Docherty. Palmitate enhances the differentiation of mouse embryonic stem cells towards white adipocyte lineages. *Moll Cell Endocrinol* 26(361) 40-50, 2012.
- Brown I, Arnold B, **Petrighi Polidori G**, Schofield A. and Hayes S. Role of the poteasome in regulating p27 in docetaxel-resistant breast cancer cells. *Eur J Surg Oncol* 36 (11), 1108, 2009.

MEDIA COVERAGE

2015 USCience Review: interviewed by Codi Miller to discuss the role of subcutaneous fat and the consequences of liposuction

2011 SSCN Newsletter, issue 19: ICSCN at ISSCR

2009 SSCN Newsletter, issue 14: One to watch: our inspiring young talent: Gioia Petrighi Polidori