

**JENNIFER N. SKIRKANICH, PH.D.**

Department of Biology, Bryn Mawr College  
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**EDUCATION**

**Ph.D. (2010) University of Pennsylvania**, Cell and Molecular Biology  
Concentration: Developmental, Stem Cell and Regenerative Biology  
Thesis: *The role of pre-MBT transcription in embryonic development*  
Advisor: Peter Klein, M.D., Ph.D.

**B.S. (2003) Stony Brook University**, Biology Major, Bioengineering Minor  
Concentrations: Developmental Genetics and Neurobiology  
Thesis: *Characterization of xNectR, a novel gene, in Xenopus development*  
Advisor: Gerald Thomsen, Ph.D.

**EXPERIENCE**

TEACHING

**Senior Lecturer, CNTT, Bryn Mawr College (2020-present)**  
**Lecturer (2013-2020)**

BIO 110 & 111 Lab: Biological Explorations Lab  
BIOL 337: Stem Cell Biology and Regenerative Medicine  
STML 101: Scientific Thinking  
STML 122: Biology of Epidemics

**Guest Lecturer**

EDUC 220: Changing Pedagogies in Math and Science, Bryn Mawr College, 2022  
QUAN 010 Math for Science & Social Science Students, Bryn Mawr College, 2014  
BIO 354: Developmental Biology, University of Pennsylvania (2011-2016)  
BIO 151: Academically Based Community Service (ABCS) Regeneration Course,  
collaboration with the Institute for Regenerative Medicine and the Netter Center for  
Community Partnerships. University of Pennsylvania, 2011

**Instructor, Lincoln University (2011-2012)**

BIO 390: Stem Cell Biology and Regenerative Medicine  
BIO 104: General Biology II for Biology Majors

**Penn-PORT Fellow (2010-2013)**, College and University Teaching Seminar, University  
of Pennsylvania (2011). Received training in pedagogical techniques and curriculum  
development for university courses in the sciences with a particular emphasis on  
teaching in the Minority Serving Institution context.

**Curriculum Development, Institute for Regenerative Medicine University of  
Pennsylvania (2010, 2012)**

Developed ABCS Regeneration Course; scientific consultant for Bridge to ReBIO  
science outreach program

## ACADEMIC SERVICE

**Assistant Dean (interim), Dean's Office, Bryn Mawr College (2022-2023)**

**Faculty Director, STEMLA Fellows Program, Bryn Mawr College (2020-present)**

College-transition and four year mentorship program for first-generation, low-income (FGLI) students; STEMLA aims to support students in development of STEM identity, belonging, and career exploration through an immersive summer program, mentorship, and participation in research and conferences.

**STEM Posse Program Director (2018-present)**

**Biology Major Advisor, 4 + 1 Advisor, Bryn Mawr College (2014-present)**

**Member, Faculty Interview Team:** Assistant Dean for Support and Belonging, Dean of Students, Dean of Student Success (2022-2024)

**Member, First Generation Low Income (FGLI) Program Steering Committee, Bryn Mawr College (2020-2022)**

**Advising Review Committee, Dean's Office, Bryn Mawr College (2019-2021)**

**Internship Funding Committee, Bryn Mawr College (2021, 2022)**

**Council on Academic Standing Member:** Special Cases Committee (2015 – 2020), Committee on Academic Standing (2015-2020), Independent Majors (2015-2018), Bryn Mawr College (2015-2018, 2019, 2020)

**Summer Science Research Co-director, Bryn Mawr College (2014-2019)**

**Middle States Working Group, Bryn Mawr (2019)**

Member of “Engaged Students, Engaged Community” working group

**Race Matters Institute Workshop Advisory Group, Bryn Mawr (2019)**

**STEM Posse Facilitator, Bryn Mawr (2014-2017)**

**Search Committee Member:** interim positions in Biology (2014, 2015, 2017, 2019)

**Search Committee Member:** tenure-track positions in Computational Ecology (2013), Immunology (2018), Physiology (2022), Neurobiology (2023)

**Search Committee Member:** CNTT position in Chemistry (2015)

**Freshman Advisor, Bryn Mawr (2014-2016)**

**Curriculum Review Committee: Developmental, Stem Cell and Regenerative Biology Program, University of Pennsylvania School of Medicine (2013)**

## RESEARCH

**Research Study: Building STEM Identity and Persistence Through STEM Pathway Mentorship (2022 – 2028).** 6-year longitudinal study examining STEM identity, belonging and self-efficacy among students in the STEMLA fellows program. Bryn Mawr College IRB Protocol #22-006. PI: Jen Skirkanich.

**Post-doctoral Fellow, Penn-PORT Program, University of Pennsylvania (2010-2013)**

Laboratory of Todd Lamitina, Ph.D., Department of Physiology

**Doctoral Dissertation, University of Pennsylvania (2003 – 2010)**

Lab of Peter Klein, M.D., Ph.D., Department of Cell and Dev Bio, School of Medicine

**Senior Thesis, Stony Brook University (2001 – 2003)**

Lab of Gerald Thomsen, Ph.D., Department of Biochemistry and Cell Biology

**Research Assistant, Stony Brook University (2000 – 2003)**

Lab of Gerald Thomsen, Ph.D., Department of Biochemistry and Cell Biology

**Research Assistant, Stony Brook University (2000)**

Laboratory of Gary Zieve, Ph.D., Department of Pathology

**OUTREACH EXPERIENCE AND SERVICE**

**Guest Speaker, Penn Alexander Middle School, Philadelphia, PA**

Designed labs and taught lessons to 8<sup>th</sup> grade students about planarian regeneration and stem cells, as part of Society for Developmental Biology Education Grant, providing funds for laboratory equipment (2022).

**Member, Institutional Review Board, University of the Sciences, Philadelphia, PA**

Reviews and approves protocols involving experiments on human subjects. Acting as a scientist community member of the board, representing the West Philadelphia community. (October 2019 – September 2021).

**Member, Board of Directors, The Parent Infant Center, Philadelphia, PA (June 2017-2021)**

**Presenter, Penn Alexander School Career Day, Philadelphia, PA (2019)**

**Judge, Penn Alexander School Science Fair, Philadelphia, PA (2014, 2015, 2017, 2018, 2021)**

**Co-Chair, Community Service Committee, Biomedical Post-Doctoral Council, University of Pennsylvania School of Medicine (2013)**

**Mentor, Bridge to ReBIO: science outreach at West Philadelphia High School (2010)**

**Mentor, Bridge to ReBIO: science outreach at Girls High, Philadelphia (2009)**

**Judge, George Washington Carver Science Fair, Philadelphia, PA (2008 – 2009)**

**AWARDS AND HONORS**

**NSF S-STEM Award (2130370), “Building STEM Identity and Persistence Through STEM Pathway Mentorship”, PI: Jen Skirkanich, \$1,493,741 (2022 – 2028)**

**Rosalyn R. Schwartz Teaching Award (2021)**

**Arthur Vining Davis Foundations Grant, “Mentoring for Persistence and Success in STEM, PI: Jen Skirkanich, \$150,000 (2021 – 2024)**

**Society for Developmental Biology Education Grant, “Planarians Go Back to School: a Lab Module for 8<sup>th</sup> Grade Science” (2020)**

**National Academies Education Fellow in the Sciences (2015-2016)**

NIH IRACDA Post-doctoral fellowship, Penn-PORT Program (2010 – 2013)

NIH Cell and Molecular Biology Training Grant, T32-GM07229 (2003 – 2005)

Distinguished Scholars Award, Biomedical Graduate Studies, Univ. of Penn. (2003)  
State University of New York Chancellor's Award for Student Excellence (2003)  
Erwin Oster Prize for Genetics Research, Stony Brook University (2003)  
Phi Beta Kappa Honor Society Member (2003)  
Howard Hughes Medical Institute Undergraduate Research Fellowship (2002)  
Sigma Xi Research Society Award for Life Sciences (2002)  
Stony Brook University Honors College Scholarship (1999 – 2000)

#### **SELECTED MEETINGS, EVENTS AND TALKS**

**Invited speaker**, *Teaching Science Like We Do Science: Leveraging Research to Improve Teaching*. American Biophysical Society Annual Meeting, Philadelphia, PA **(2024)**

**Invited speaker**, *Evolution and the Galápagos: From Darwin to DNA*. National Geographic Expedition to Galápagos, with Bryn Mawr Travel Program, Galápagos National Park, Ecuador **(2023)**

**Invited speaker**, *Breaking Down Barriers and Building Up Pathways to Success: Evidence-Based Pedagogical Practices to Enhance Inclusion*. Haverford College, Haverford, PA **(2023)**

**Invited speaker**, *Using DBH Measurements to Calculate Tree Biomass Connecting to Community*. Philadelphia Regional Institute for STEM Education, St. Joseph's University, Philadelphia, PA **(2023)**

**Guest speaker**, *Belonging in STEM: Illuminating Pathways with the STEMLA Fellows Program*. Bryn Mawr Golden Sages, Alumni Weekend **(2022)**

**Works in Progress Presentation**, *Breaking Down Barriers and Building Up Pathways to Success: Evidence-Based Pedagogical Practices to Enhance Inclusion*. First Generation-Week Talk, Bryn Mawr Works in Progress Series **(2022)**

**PKAL STEM Leadership Institute**, Participant, Virtual. STEM Leadership Institute trains faculty and administrators to navigate institutional change and effective leadership in STEM in higher education. **(2022)**

**Coordinator for National Institute for Scientific Teaching "Solve My Problem" Program**. Facilitator for a virtual program designed to transform pedagogical approaches for science faculty. Led a group of 6 faculty in the US and Canada through the month-long program to address the issue of "Inclusivity in Departments" **(2021)**

**Invited speaker**, Education Workshop: *Using DBH Measurements to Calculate Tree Biomass From Home: Connecting the Classroom and Connecting to Community*. Society for Developmental Biology 80<sup>th</sup> Annual Meeting, Virtual **(2021)**

**6<sup>th</sup> Annual National CIRTl Forum**, Participant  
Drexel University, Philadelphia, PA **(2019)**

**Summer Institute on Scientific Teaching**, Facilitator for a week-long institute designed to transform pedagogical approaches for science faculty. Co-presented talk titled “Inclusive Classrooms” (2019).

Stony Brook University, Stony Brook, NY **(2019)**  
Virtual **(2020)**

**Co-organizer, Workshop, Strategies for Building Success in STEM**

Led a team in organizing a workshop for the 2019 Bryn Mawr Community Day of Learning with a focus of “A More Inclusive Bryn Mawr” **(2019)**

**Works In Progress Presentation, Bryn Mawr College**

Co-presented talk in session titled “Fostering Inclusivity and Belonging in the Classroom: Pedagogical Partnerships, Flipped Classrooms, and Beyond.” **(2019)**

**National Academies Summer Institute on Undergraduate Education in Science**,

Participant in week-long institute designed to transform pedagogical approaches for science faculty. Sponsored by HHMI and National Academies of Science, Engineering and Medicine

Princeton University, Princeton, NJ **(2015)**

**Poster presentation**, *Making heads of tails: Using a project-based learning approach to investigate planarian regeneration in an introductory biology laboratory.*

Regional Society for Developmental Biology Meeting, Baltimore, MD **(2014)**

**Conference Planning Committee**

National IRACDA Meeting, Philadelphia, PA **(2012)**

**Invited speaker**, *Modeling cystic fibrosis and membrane protein misfolding in C. elegans.*

Lincoln University Biology Department Seminar Series **(2012)**

**Oral presentation**, *Academically Based Community Service (ABCS) courses: an innovative teaching model for colleges and universities.*

National IRACDA Meeting, Houston, TX **(2011)**

**Education Session Organizer**, *Science Outreach: a Practical Guide.*

Society for Developmental Biology Mid-Atlantic Meeting, Philadelphia, PA **(2011)**

**Invited speaker/Co-instructor**, Education Workshop: *Bench Scientists can do Science Outreach.*

Society for Developmental Biology 69<sup>th</sup> Annual Meeting, Albuquerque, NM **(2010)**

**PUBLICATIONS**

Zhang, M.\*, Skirkanich, J.\*, Lampson, M., Klein, P. S. “Cell Cycle Remodeling and Zygotic Gene Activation and the Midblastula Transition.” *Vertebrate Development*. Eds. F. Pelegri, M. Danilchik, A. Sutherland. Switzerland: Springer International, **2017**. 441-487. Print.

He, L., Skirkanich, J., Moronetti, L., Lewis, R., and Lamitina., T. **(2012)**. The Cystic Fibrosis-associated deltaF508 mutation confers post-transcriptional

destabilization on the *C. elegans* ABC transporter PGP-3. *Disease Models and Mechanisms*, 5(6):930-9.

Skirkanich, J.\*, Luxardi, G.\*, Yang, J., Kodjabachian, L., and Klein, P. S. (2011). An essential role for transcription before the MBT in *Xenopus laevis*. *Developmental Biology*, 357(2):478-91.

\*denotes shared authorship