Curriculum Vitae
Aaron B. Steiner, Ph.D.

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Education

2006	Ph.D., Cell and Molecular Biology University of Pennsylvania School of Medicine
2000	B.S. (Cum Laude with High Honors), Biology Brandeis University
1996	Diploma, Phillips Academy Andover High School

Academic Appointments

2023 – present	Department Chairperson Pace University, Department of Biology
2020 – present	Associate Professor Pace University, Department of Biology
2014 – 2020	Assistant Professor Pace University, Department of Biology
2006 – 2014	Post-Doctoral Associate/Research Associate The Rockefeller University and Howard Hughes Medical Institute

Teaching Experience

Since joining Pace University

At Pace, I have taught 17 different courses including one-on-one research-based mentoring and internship courses. Hours per week indicate official workload hours, not actual time spent on each course.

Lecture and Laboratory Courses	Hours per week	Semesters	Total Sections Taught	Mean class enrollment
Genetics (BIO 231) Laboratory	3	Fall 2014 (two sections), 2015 (two sections), 2016 (two sections), 2017 (two sections), 2018, 2019 (two sections), 2020, 2021, 2022	15	16
Genetics (BIO 231) Lecture	3	Fall 2015, 2017, 2018, 2019, 2020, 2021, 2022	8	33

Genomics (BIO 399X/BIO 336) Lecture	3	Spring 2015, 2016, 2017	3	7

Lecture and Laboratory Courses	**Hours per week**	**Semesters**	**Total Sections Taught**	**Mean class enrollment**
Genomics (BIO 399X/BIO 336) Laboratory	3	Spring 2015, 2016, 2017	3	7
General Biology II (BIO 102) Laboratory	3	Spring 2016, 2017, 2019, 2020, 2021, 2022, 2023	7	18
Introduction to Research in the Biological Sciences (BIO 490)	3	Fall 2014	1	15
Developmental Biology (BIO 321) Lecture	3	Fall 2016, 2020, 2021, 2022	5	10
Neurobiology (BIO 325)	3	Spring 2021	1	30
General Biology I (BIO 101) Laboratory	3	Fall 2018, 2019	2	15
Molecular and Cellular Biology (BIO 335) Laboratory	3	Spring 2015, 2020, 2021, 2022, 2023	5	13
Biology and Contemporary Society (BIO 123) Laboratory	2	Spring 2018, 2019	2	16

Mentoring and Internship Courses	**Hours per week**	**Semesters**	**Total Students Mentored**
Internship in Biology (BIO 491)	1	Spring 2015 (three sections), 2016 (three sections), 2017 (three sections), 2018, 2019 (two sections), 2020, 2022, 2023, Fall 2015, 2017, 2022 (three sections)	25
Research in Biology (BIO 480)	1	Spring 2015, 2016, 2017, 2018, 2020, 2022, 2023, 2024 (three sections), Fall 2017, 2018, 2022, 2023, 2024	16
Biology Laboratory Research Training (BIO 292)	0	Spring 2015, 2022, 2023, 2024 Fall 2016, 2021, 2022, 2023, 2024, Summer 2017, 2023	16

Research I (BMB 710)	1.33	Spring 2016, 2023, Fall 2019, 2023	4
Research II (BMB 711)	1.33	Summer 2016, Spring 2019, 2024	3
Research in Biology II (BIO 481)	1	Spring 2019, 2021, 2023	3

Prior to joining Pace University

2004 Eukaryotic Gene Expression (BIOM 555), Teaching Assistant

2000 Imagining How We Are: East and West II (HIP 20B), Teaching Assistant

STEM Education Workshops

2019 Mobile Summer Institute on Scientific Teaching, NSF/HHMI, Pleasantville, NY
Named a Scientific Teaching Fellow

2012 Boot Camp for New Faculty, Society for Developmental Biology, Montreal, QC

Research Experience

Peer-reviewed publications

Mercer I.G., Italiano A.N., Gazaryan I.G., **Steiner A.B.**, and Kazakov S.V. (2023) Degradation kinetics of disulfide cross-linked microgels: Real-time monitoring by confocal microscopy. Gels **9(10)**, 782. PMCID: PMC10606370

Volpe, B. A., Fotino, T. H., **Steiner, A. B.** (2020) Confocal Microscope-Based Laser Ablation and Regeneration Assay in Zebrafish Interneuromast Cells. *J. Vis. Exp.* **159**, e60966, doi:10.3791/60966

Monesson-Olson B., McClain J.J., Case A.E., Dorman H. E., Turkewitz D.R., **Steiner. A.B.**, Downes G.B.(2018) Expression of the eight GABAA receptor α subunits in the developing zebrafish central nervous system. *PLoS ONE* 13(4) e0196083

*Reid C.D., ***Steiner, A.B.**, Yaklichkin S., Lu Q., Wang S., Hennessy M., and Kessler D.S. (2016) FoxH1 mediates a Grg4 and Smad2 dependent transcriptional switch in Nodal signaling during *Xenopus* mesoderm development. *Developmental Biology* **414**, 34-44
* = These authors contributed equally to this work.

Steiner, A.B., Kim, T., Cabot, V., and Hudspeth, A.J. (2014) Dynamic gene expression by putative hair-cell progenitors during regeneration in the zebrafish lateral line. *PNAS* **111**, E1393-E1401

Yaklichkin S., **Steiner A.B.,** Lu Q. and Kessler D.S. (2007). FoxD3 and Groucho-4 physically interact to repress transcription and induce mesoderm in Xenopus. *J. Biol. Chem*. **282**, 2548-57

Steiner A.B., Engleka M.J., Lu Q., Craig E.J., Yaklichkin S., Lefebvre J.L., Walters J.W., Labosky P.A. and Kessler D.S. (2006). FoxD3 maintenance of Nodal in the Spemann organizer is essential for Xenopus dorsal mesoderm development. *Development* **133**, 4827-38

Book Chapters

Yaklichkin S., **Steiner A.B.,** and Kessler D.S. Transcriptional Repression in Spemann's Organizer and the Formation of Dorsal Mesoderm**.** In *The Vertebrate Organizer*, Grunz H. (Ed.), Springer 2004

Grant Applications

External Grant Applications, Funded

2019 Steiner A.B. (Co-PI with Drs. Sally Marik, Nancy Krucher and Sergey Kazakov) NSF MRI Grant
Acquisition of high-throughput fluorescence imaging system for undergraduate research and teaching at Pace University 2019
$372,304.00
Status: **Funded, 2019-2023**

2016 Steiner A.B. (PI) NIH R15 Grant, number 1R15DC015352-01A1
Transcriptional regulation of hair-cell progenitors in the zebrafish lateral line
$378,528
Status: **Funded, 2017-2020**

2009 Steiner A.B. (Key personnel, co-writer; A. James Hudspeth, PI) NIH ARRA "Challenge Grant," number 5RC1DC010609-02
Gene expression patterns during hair-cell regeneration
$227,636
Status: **Funded, 2010-2011**

2003 Steiner A.B. NIH Institutional Research Training Grant in Developmental Biology, grant number 5-T32-HD007516, University of Pennsylvania School of Medicine, Department of Cell and Molecular Biology
Status: **Funded, 2003-2005**

External Grant Applications, Not Funded

2022 Steiner, A.B. (PI) Capita Foundation Auditory Research Grant
$20,000

2022 Steiner, A.B. (PI) NIH R15 Grant, number 1R15 DC020038-01 Resubmission
Dkk-dependent regulation of proliferation by hair-cell progenitors in zebrafish
$438,542

2021 Steiner, A.B. (PI) Capita Foundation Auditory Research Grant
$20,000

2021 Steiner, A.B. (Co-PI with Drs. Marcy Kelly, Matthew Marcello and Avrom Caplan) NIH URISE Grant

2021 Steiner, A.B. (PI) NIH R15 Grant, number 1R15 DC020038-01
Dkk-dependent regulation of proliferation by hair-cell progenitors in zebrafish
$436,583

2020 Steiner, A.B. (PI) Department of Defense CDMRP Hearing Restoration Research Program grant
Dkk1 regulation of proliferation by hair-cell progenitors in zebrafish
$337,594

2015 Steiner A.B. (PI) NIH R15 Grant, number 1R15DC015352-01
Transcriptional regulation of hair-cell progenitors in the zebrafish lateral line
$378,528

2014 Steiner A.B. (PI) NIH NIDCD R03 Grant
Molecular characterization of hair cell progenitors in the zebrafish lateral line
$300,000

2013 Steiner A.B. (PI) NIH NIDCD R03 Grant
Molecular characterization of hair cell progenitors in the zebrafish lateral line
$300,000

2012 Steiner A.B. (PI) American Hearing Research Foundation Grant
Characterization of a Hair Cell-Progenitor Niche in the Zebrafish Lateral Line
$19,980

2010 Steiner A.B. (PI) American Hearing Research Foundation Grant
Identification and Characterization of Sensory Hair-Cell Progenitors in the Zebrafish Lateral Line
$20,000

2010 Steiner A.B. (PI) American Foundation for Aging Research Ellison Fellowship
Identification and Characterization of Sensory Hair-Cell Progenitors in the Zebrafish Lateral Line
$51,710

2008 Steiner A.B. (PI) American Foundation for Aging Research Ellison Fellowship
Signaling by Bone Morphogenetic Proteins in the Control of Regeneration by Sensory Hair Cells
$46,850

Internal Grant Applications, Funded

2023 Scholarly Research Award, $4000

2023 Scholarly Research Award, $2998

2022 Scholarly Research Award, $2966

2021 Bridge Fund Award, $5,000

2021 Scholarly Research Award, $2,994

2021 Scholarly Research Award, $2,000

2017	Scholarly Research Award, $2,790
2015	Scholarly Research Award, $1,719

Internal Funding with Undergraduate Researchers

2021	Provost's Summer Undergraduate Research Award (Tyler Deriggi)
2018-2019	Provost's Undergraduate Research Award (Bryan Volpe)
2017	Provost's Undergraduate Research Award (Mitchel Sybesma)
2017	Provost's Undergraduate Research Award (Lesly Sanchez)
2016-2017	Provost's Undergraduate Research Award (Anthony Abraham)
2016	Provost's Undergraduate Research Award (Lesly Sanchez)
2015-2016	Provost's Undergraduate Research Award (Teresa Fotino)

Grant Review panels

Fall 2024	Congressionally-Directed Medical Research Program (CDMRP) Hearing Restoration Research Program (HRRP) grant review panel

Presentations

Invited Presentations

2023	Invited lecture, Columbia University Pre-College Program, Introduction to Neuroscience course
2023	**Steiner, A.B., and Krucher, N**. Targeting ACLY in melanoma invasion: a collaboration. Pace University Tri-Beta and Sigma Xi invited lecture, Pleasantville, NY
2023	Ho, D., Johnson, M., and Steiner, A.B. Small molecule inhibition of Dkk1 increases neuromast cell number. Lateral Line Data Club, international presentation, online.
2020	**Steiner, A.B.** Hair cell progenitors in the zebrafish lateral line. Sarah Lawrence College, Bronxville, NY.
2019	**Steiner A.B.** Identifying molecular regulators of hair-cell regeneration in the zebrafish lateral line. Mount Sinai School of Medicine, New York, NY.
2018	**Steiner A.B.** Molecular regulators of hair-cell regeneration in the zebrafish lateral line. New York Medical College, Valhalla, NY.
2017	**Steiner A.B.** Molecular regulators of hair-cell regeneration in the zebrafish lateral line. St. John's University, New York, NY.
2016	**Steiner A.B.** Hair cell progenitors in the zebrafish lateral line.

Pace University NYC chapter of the National Student Speech Language and Hearing Association, New York, NY

2014 **Steiner A.B.** Hair cell progenitors in the zebrafish lateral line. Science Seminar Series, Pace University, New York, NY.

2011 **Steiner A.B.** The Zebrafish Lateral Line as a Model for Hair Cell Regeneration. Rockefeller University Neuroscience Retreat. New York, NY.

2008 **Steiner A.B.** Regeneration of sensory hair cells in the zebrafish lateral line. Bard College, Annandale-on-Hudson, NY.

2005 **Steiner A.B.** and D.S. Kessler. Groucho regulation of Nodal signaling in the *Xenopus* embryo. University of Pennsylvania Center for Research on Reproduction and Women's Health Annual Research Retreat. Bryn Mawr, PA.

2005 **Steiner A.B.** and D.S. Kessler. Groucho regulation of Nodal signaling in the *Xenopus* embryo. Society for Developmental Biology Mid-Atlantic Regional Meeting, Washington, D.C.

Other Presentations

2024 **Steiner, A.B.**, How Fish Feel: The sixth sense and what it can teach us, Snorkle Labs Inc.

2020 **Steiner, A.B.**, Embryonic Development – in 4 Dimensions, Snorkle Labs Inc.

2016 Fisher J.A., **Steiner A.B.**, et al. Neurodome: An immersive film journey through the brain. Immersive Worlds Conference, Baruch College, New York, NY.

2015 Fisher J.A., **Steiner A.B.**, et al. Neurodome: An immersive film journey through the brain. The Ultimate Science Street Fair, World Science Festival, New York University, New York, NY.

2014 Fisher J.A., **Steiner A.B.**, et al. Neurodome: An immersive film journey through the brain. Cradle of Aviation Museum and JetBlue Planetarium, Garden City, NY

2012 **Steiner A.B.** The mantle cell transcriptome: A gateway to hair-cell regeneration. Rockefeller Postdoctoral Association Retreat. Lakeville, CT.

Honors and Awards

2019 Pace University PLV Undergraduate Student and Faculty Research Showcase Winner, with Bryan Volpe - $2000 travel award

2016 Pace University PLV Undergraduate Student and Faculty Research Showcase Winner, with Teresa Fotino - $2000 travel award

2016 Pace University PLV Science Day Best Poster Winner, with Teresa Fotino

2006 Best Oral Presentation Prize**,** 3rd Annual Biomedical Graduate Student Research Symposium, University of Pennsylvania School of Medicine, Philadelphia, PA

2005	Honorable Mention for Best Graduate Student Poster competition, Society for Developmental Biology 64th Annual Meeting, San Francisco, CA
2000	High Honors for Independent Research Thesis, Construction of a knockout of the Histidine Triad Nucleotide Binding Protein in *E. coli*, Brandeis University, Waltham, MA

Peer Review of Journal Articles

iScience, Journal of Visualized Experimentation, PLoS One, Developmental Biology

Service Experience

Institutional Service at Pace University

2022 – present	Vice-Chair, Pace Institutional Animal Care and Use Committee (bi-campus)
2021 – present	Biology Department liaison and advisor, Mosaic Pre-Med program
2021 – present	U.S. News Rankings Working Group
2019	Scholastic Standing and Appeals Committee, member
2018 – 2022	Chair, PLV Institutional Animal Care and Use Committee
2018 – present	Co-Chair, Pre-Health Committee
2018 - 2019	Textbook Taskforce to address student and faculty textbook needs, member
2018	Scholastic Standing and Appeals Committee, member
2018	Panelist, Office of Sponsored Research R15 Grant Application panel
2018	Volunteer, New student orientation
2017	Scholastic Standing Committee, member
2017	Volunteer, PaceBound events for accepted Pace students
2017	Volunteer, New student orientation
2016 – 2017	Search Committee, Organismal Biology tenure-track professor line, member
2016 – 2017	Search Committee, Anatomy and Physiology Lecturer line, member
2017	Scholastic Standing Committee, member
2016	Speaker at Pace Environmental University program, Pleasantville, NY
2016	Scholastic Standing Committee, member
2016	Volunteer, New student orientation

2015 – present	Faculty Advisor to the Pace University Beta Beta Beta Biological Honors Society chapter
2015 – present	Organizer, Biology Department Research Group meetings
2015	Chair, Search committee, Neurobiology Lecturer line
2015	Panelist, New Faculty Orientation event

Professional and Outreach Service

2019	Science Saturday outreach volunteer, The Rockefeller University, New York, NY
2016	Science Saturday outreach volunteer, The Rockefeller University, New York, NY
2016	Panelist, Rockefeller University Alternative Scientific Careers panel, New York, NY
2015	Session Chair, Mid-Atlantic Regional Zebrafish Meeting, Albert Einstein College of Medicine, New York, NY.
2014	Reviewer, PLoS One Journal
2012 – Present	Co-founder and Ambassador, Neurodome neuroscience planetarium project, New York, NY

Professional Memberships

2014 – present	Society for Developmental Biology