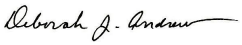
CURRICULUM VITAE

Deborah Jean Andrew 26 September 2022



DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

2004 Professor, Department of Cell Biology and Center for Cell Dynamics; The Johns Hopkins University School of Medicine
2017 Professor, The Johns Hopkins Malaria Research Institute, The Johns Hopkins University School of Public Health
2018 Associate Director for Faculty Development, Institute for Basic Biomedical Sciences, The Johns Hopkins University School of Medicine
2022 Professor, Molecular Microbiology and Immunology, The Johns Hopkins University School of Public Health

Contact Information

Department of Cell Biology; 725 N. Wolfe St.; G10 Hunterian; Baltimore, MD 21205-2196; 410-614-2722; 410-955-4129; dandrew@jhmi.edu

Lab Website

https://andrewlab.cellbio.jhmi.edu

CAREER SUMMARY

Education and Training

1979 B.S. Limnology (Fresh Water Ecology); University of Central Florida; Orlando, FL
1981 M.S. Biology; Advisor: David S. Kuhn; University of Central Florida; Orlando, FL
1987 Ph.D. Biology; Advisor: Bruce S. Baker; University of California San Diego; San Diego, CA

Professional Experience

1988 -1990 Post-doctoral Research; Advisor: Matthew P. Scott; University of Colorado, Boulder, Boulder, CO
1990-1993 Post-doctoral Research; Advisor: Matthew P. Scott; Stanford University; Palo Alto, CA
1993 Assistant Professor, Department of Cell Biology and Anatomy, The Johns Hopkins University School of Medicine
1999 Associate Professor, Department of Cell Biology, The Johns Hopkins University School of Medicine
2004 Professor, Department of Cell Biology, The Johns Hopkins University School of Medicine
2018 Associate Director for Faculty Development, Institute for Basic Biomedical Sciences, The Johns Hopkins University School of Medicine

RECOGNITION

Awards, Honors

1981-1984: National Science Foundation Graduate Fellowship
1983-1984: Cal Biochem Award for Molecular Research
1984-1986: National Institute of Health Traineeship
1987-1988: Martin Kamen Award for Best Biochemistry Thesis, UC San Diego
2000-2001: Professor's Award for Distinction in Teaching the Basic Sciences JHMI
2021: Elected Fellow of the American Association for the Advancement of Science

PROFESSIONAL SERVICE ACTIVITIES

Institutional Activities

1996 – 2010 BCMB Graduate Admissions Committee
1999, 2013, 2016 Young Investigators Day Review Committee
2002 – 2003 Molecular Biology and Genetics Chair Search Committee
2014 Participant, Johns Hopkins Leadership Development Program

2014 – 2015	Johns Hopkins Basic Sciences Facilities Task Force
2015 – 2018	JHMI Postdoctoral Advisory Board
	Chair of the Mentee/Mentor Awards Selection Committee
	Chair of the Postdoctoral Core Competency Task Force
	Member of the Postdoctoral Extension Review Committee
	Member of the Postdoctoral Term Limits Task Force
2017	Member, JHMI Promotions Task Force
2019	Member, JHMI Faculty Mentoring Task Force
2022	Member, JHMI Faculty Awards and Development Board

Editorial Board Activities

2006 – 2015	Editorial Board, Developmental Dynamics
2019 – 2021	Associate Editor, Genetics

Journal peer review activities

1996 – present	Reviewer: *Cell, Development, Developmental Biology, Developmental Cell, Genes and Development, Genetics, Mechanisms of Development, Nature, PNAS, Science, eLife, PLOS Biology, PLOS Genetics, Review Commons, others*
2004 – 2008	Faculty of 1000, Developmental Biology

Advisory Committees, Review Groups/Study Sections

1999 – 2002	Ad hoc reviewer, NIH study section OBM-1, OBM-2, CDF-5
2002 – 2006	Reviewer National Institutes of Health Study Section CDF5/DEV-2
2009, 2010, 2011, 2014	Reviewer, NIH review of in-house faculty
2010	Special Emphasis Panel NIAID International Centers of Excellence for Malaria Research
2011 – 2013, 2015	NIH Ad Hoc Reviewer F05 pre-doctoral and post-doctoral grants
2013 – present	Drosophila Genetics Resource Center (DGRC) Advisory Board
2020	NIH Special Emphasis Panel/Scientific Review Group ZRG1 CB-C (02) M

Professional Societies

1996 – present	Member, Genetics Society of America (GSA)
2010 – 2011	Drosophila Board Elections Committee Member
2013 – 2016	Drosophila Board Treasurer
2016 – present	Member, American Association for the Advancement of Science (AAAS)
2017 – present	Member, American Microbiology Association
2018	Drosophila Board President
2019 – 2020	Head of the Drosophila Board Elections Committee

Conference Organizer

National

2006	Co-Organizer: Santa Cruz Developmental Biology Meeting, 2006
2010	Co-organizer, 51st Annual Drosophila Research Meeting, Washington DC
2013, 2015	Co-Organizer Gordon Conference on Salivary Glands & Exocrine Biology

International

2010 – 2014	Organizational Committee, Biennial EMBO Workshop " Molecular and Developmental Biology of Drosophila
2022 – 2026	Head of the Organizational Committee, Biennial EMBO Workshop " Molecular and Developmental Biology of Drosophila"

EDUCATIONAL ACTIVITIES

Educational Focus

I have been involved in teaching medical students and graduate students since my arrival at Hopkins in 1993. I took a leadership role in teaching very early on by directing the first-year medical school Principles of Developmental Biology course from 1997 – 2006, co-directing the course in 1996. I have been teaching (and most often also) directing the graduate Developmental Biology elective course since 2004, when the course

was first taught, until now. I thoroughly enjoy teaching, both giving lectures and guiding students through self-directed small group learning.

Teaching

Classroom instruction

1993-2016	Lecturer, First year graduate course, Principles of Genetics, JHMI
1993-1995	Lecturer/Small Group leader, First year medical school course, Principles of Developmental Biology, JHMI
1995-2003	Lecturer, First year graduate course, Biochemistry and Cell Biology, JHMI
1996	Course Co-Director/Lecturer/Small Group leader, First year medical school course, Principles of Developmental Biology, JHMI
1997 – 2006	Course Director/Lecturer/Small Group leader, First year medical school course, Principles of Developmental Biology, JHMI
1997 – 2022	Discussion Leader, First year BCMB graduate core Journal Club, JHMI
2004 – 2007	Lecturer, Graduate Developmental Biology Elective, JHMI
2007 – present	Lecturer and Small Group leader, First year medical school course, Cell Physiology
2008 - 2009	Course Director and Lecturer, Graduate Developmental Biology Elective, JHMI
2010 – 2011	Lecturer, Graduate Developmental Biology Elective, JHMI
2012 – present	Course Director and Lecturer, Graduate Developmental Biology Elective, JHMI

Mentoring

Pre-doctoral Advisees /Mentees

Daniel D. Isaac, PhD; Current Position: Biology Program Manager and Professor/Instructor - Georgetown University; Washington DC; PhD
Partha Seshaiah, PhD; Current Position: Research Scientist, Clinical Study Manager at Varian Medical Systems; Seattle, WA; PhD
Katya D. Henderson, PhD; Current Position: Head of Operations at Novartis Institutes for BioMedical Research (NIBR); PhD
Cristina Machado, PhD; Current Position: Stay-at-home mother; PhD shared advising with Dr. Claudio Sunkel, University of Porto; PhD
Pamela L. Bradley, PhD; Current Position: Associate Director Scientific Affairs, Personal Genome Diagnostics, Baltimore, MD; PhD; HHMI Graduate Student Fellowship
Adam S. Haberman, PhD; Current Position: Associate Professor, University of San Diego, San Diego, CA; PhD
Elliott W. Abrams, PhD; Current Position: Associate Professor, SUNY College Purchase, Purchase, NY; PhD
Melissa Stundick, PhD; Current Position: Head of Strategic Operations, Spero Therapeutics, LLC, Cambridge, MA; PhD
Alan S. Cheshire, PhD; Current Position: Senior Program Specialist at Vanguard, Philadelphia, PA; PhD; Whitaker Fellowship; PhD
Bilal E. Kerman, PhD; Current Position: Assistant Professor, Medipol University REMER, Turkey; PhD
Caitlin Hanlon, PhD; Current Position: Assistant Professor of Biology, Quinnipiac University
Yim Ling Cheng, PhD; Current Position: Postdoctoral Fellow in laboratory of Dr. Peter Sims, Columbia University; PhD
Dorothy Johnson, PhD; Current Position: Scientist II at NextCure, Inc
Dorian Jackson, BS. Current PhD student; Graduate Program in Molecular Microbiology and Immunology
Nathaniel Laughner, BS. Current PhD student; Graduate Program in Biochemisty, Molecular and Cellular Biology
Ashleigh Shoemaker, BS, DVM. Current PhD student; Graduate Program in Cellular and Molecular Medicine
Aditi Kulkarni, BS. Current MS student, Graduate Program in Biotechnology.

Post-doctoral Advisees /Mentees

Monn Monn Myat, PhD; Current position: Associate Dean of the Watson School of Biological Sciences, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
Elizabeth Grevengoed, PhD, PA; Current position: Physician's Assistant, National Jewish Health, Lakewood, Co
Afshan Ismat, PhD; Current Position: Professor of Biology at the University of St. Thomas; St. Paul, Minnesota
Rebecca Fox, PhD; Current Position: Variant Curator, Sema4 Diagnostics; New York, NY
Rika Yakota-Maruyama, PhD; Current Position: Research Associate, Department of Medical Genetics, University of Alberta, Edmonton, Alberta
SeYeon Chung, PhD; Current Position: Assistant Professor of Biology, Louisiana State University
Parama Paul, PhD; Current Position: Licensing and Intellectual Property Manager Corteva Agriscience (Dow AgroScience LLC)
Michael B. Wells, PhD; Current Position: Assistant Professor at Idaho College of Osteopathic Medicine
Rajprasad Loganathan, PhD; Current Position: Assistant Professor, Witchita State University
Ji Hoon Kim, PhD; Current Position: Research Associate in my lab

Major Research Interests

My lab focuses on the specification, morphogenesis and cell type specialization of two epithelial tubular organs, the Drosophila salivary glands (SG) and trachea. We have made a number of key findings in this arena. (1) We have identified the genetic factors required to specify SG cell fates in the developing Drosophila embryo. (2) We have characterized the pathways that drive cell shape changes and cell rearrangement during epithelial tube formation in both the Drosophila SG and trachea. (3) We have shown that the CrebA transcription factor and its mammalian orthologues (the Creb3L family) coordinately upregulate secretory capacity in professional secretory cells. (4) We have demonstrated that the Fkh transcription factor (single FoxA family member in Drosophila) works with a bHLH transcription factor to control both SG cell survival and the expression of tissue-specific cargo genes s in the SG. (5) We have uncovered a role for the bHLH-PAS transcription factor Trh as a master regulator of tracheal gene expression. We have also provided a full morphological characterization of the SGs in the mosquito species that is a major vector for human malaria and have developed gene editing strategies to disrupt this organ to limit disease transmission. We have resolved a long-standing controversy about the molecular pathways controlling migration of Drosophila germ cells to the gonad. Finally, we have recently identified and characterized a nuclear factor that increases translational capacity in the Drosophila SG and in other tissues with high demands for protein synthesis. We continue to characterize the molecular and cellular events underlying tissue morphogenesis and physiological specialization through genetics, genomics and advanced imaging.

Patents

2003	US Patent US20030040051A1, "Wnt Receptors composition and methods", held by P. Bhanot, M. Brink, C.H. Samos, Y. Want, J.-C. Hsieh, **D. Andrew**, J. Nathans, R. Nusse
2010	US Patent Exploratin, JHU Ref. No. C109490 "Creb Mediated High-level Expression of Secreted Gene Products for Research, Commercial and Therapeutic Applications" **D. Andrew** and R. Fox.