TAMARA CASPARY

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Department of Human Genetics
Emory University School of Medicine
615 Michael St., Suite 301
Atlanta, GA 30322

EDUCATION

Ph.D. Molecular Biology, Princeton University — November 1999
Dissertation: *Mechanisms of Genomic Imprinting and Disease*
Advisor: Dr. Shirley Tilghman

M.A. Molecular Biology, Princeton University — May 1996

B.S. Biology, The University of North Carolina at Chapel Hill — May 1992
Graduated with Honors
Minored in Chemistry

POSTDOCTORAL TRAINING

Research Fellow, National Institute for Medical Research, London, UK
Advisor: Dr. Robin Lovell-Badge — 2000

Research Fellow, Memorial Sloan Kettering Cancer Center, New York, NY
Advisor: Dr. Kathryn Anderson — 2001 to 2004

ACADEMIC APPOINTMENTS

Department of Human Genetics, Emory University, Atlanta, GA
Assistant Professor — 2005 to 2012
Associate Professor, tenured — 2012 to 2018
Professor, tenured — 2018 to present

ADMINISTRATIVE POSITIONS

Emory University Mouse Transgenic and Gene Targeting Core
Scientific Director — 2012 to present

Co-Director, Predoctoral Training Program in Genetics (T32) — 2021 to present

HONORS AND AWARDS

Hitchings-Elion Career Development Award — 2000
The Burroughs Wellcome Fund

Outstanding Junior Faculty Service Award — 2006
Genetics and Molecular Biology Graduate Program

Basil O'Connor Starter Scholar Award — 2007
The March of Dimes

PROFESSIONAL AFFILIATIONS

Genetics Society of America	2005 to present
Society for Developmental Biology	2005 to present
Society for Neuroscience	2006 to 2010
American Society for Cell Biology	2010 to 2017

PROFESSIONAL TRAINING

Early Career Women Faculty Leadership Development Seminar — 2008
Association of American Medical Colleges Leadership Program

Executive Development Seminar for Interim and Aspiring Leaders — 2013
Association of American Medical Colleges Leadership Program

Certificate, Mentor Training — 2020
Atlanta Society of Mentors

Certificate, Culturally Aware Mentor Training — 2021, 2022
Center for the Improvement of Mentored Experiences in Research

PROFESSIONAL SERVICE

International and National

Advisory Committee, Knockout Mouse Phenotyping Program, — 2015, 2019
National Institutes of Health Common Fund
Hosted by National Human Genome Research Institute

Board of Directors, Southeast Representative (elected) — 2018 to 2026
Society for Developmental Biology

Institutional

Chair, Seminar Committee — 2005 to 2018
Department of Human Genetics

Chair, Mouse Genetics Scientific Advisory Committee — 2006 to 2012
Department of Human Genetics

Member, Curriculum Committee — 2008 to 2010
Department of Human Genetics

Elected Member, Dean's Faculty Advisory Council — 2008 to 2011
Emory School of Medicine
Vice Chair — *2009 to 2010*
Chair — *2010 to 2011*

Member, Mouse Transgenic Core Facility Review Committee — 2009
Emory School of Medicine

Member, Mouse Transgenic Core Facility Steering Committee — 2009 to 2012
Emory School of Medicine

Member, Research Advisory Council — 2011 to 2013
Emory School of Medicine

Member, Core Oversight Committee — 2011 to 2014
Emory School of Medicine

Elected Representative, School of Medicine 2013 to 2016
Emory University Senate and Faculty Council

Faculty Counselor, Investment Committee 2015 to 2018
Emory University Board of Trustees

Chair, Research Administrative Services (RAS) Task Force 2016 to 2018
Emory University Faculty Council

Liaison to Woodruff Health Sciences Research Advisory Committee 2016 to 2018
Emory University Faculty Council

Member, RAS Task Force Improvement Initiative Working Group 2017 to 2018
Emory University Faculty Council

Member, Research Administration Faculty Advisory Board 2019 to 2022
Emory University
Chair *2021 to 2022*

GRANT REVIEW

International and National

Ad hoc panel member, Division of Integrative Organismal Biology 2007
National Science Foundation

Ad hoc mail reviewer, Division of Integrative Organismal Biology 2007
National Science Foundation

Ad hoc mail reviewer, Challenge Grants, Neural Cell Fate Study Section 2009
National Institutes of Health

Ad hoc panel member, Neural Cell Fate Study Section 2009
National Institutes of Health

Panel member, Development, Differentiation and Cancer Study Section
American Cancer Society
Ad hoc member 2009
Permanent member 2011 to 2013
Vice Chair 2012 to 2013
Chair 2013 to 2015

Ad hoc mail reviewer 2012
Research Grants Council, Hong Kong, China

Ad hoc mail reviewer 2012
New York Capital Research Alliance

Ad hoc panel member, Special Emphasis Panel (ZRG1 CB-W(55)R) 2014 to 2015
National Institutes of Health

Panel member, Training and Workforce Development (TWD-A) study section,
National Institute of General Medical Sciences
Permanent member 2015 to 2019
Chair 2019 to 2021

Ad hoc panel member, Structural Birth Defects Study Section — 2017
National Institute of Child Health and Development

Ad hoc mail reviewer — 2019, 2021
UK Medical Research Council

Ad hoc mail reviewer — 2019, 2020
UK Biotechnology and Biological Sciences Research

Ad hoc panel member, PKD Research and Translational Core — 2020
National Institute of Diabetes and Digestive Diseases

Ad hoc panel member, Pathobiology of Kidney Disease Study Section — 2022
National Institute of Diabetes and Digestive Diseases

Institutional

Member, Bridge/Catalyst and Seed Funding Programs — 2015 to present
Emory School of Medicine

Member, Halle Institute Review Committee — 2021 to 2023
The Halle Institute for Global Research, Emory University

PEER REVIEW

Editorial Boards

Editorial Board — 2011 to 2017
Cilia

Associate Guest Editor — 2017, 2021
PLoS Genetics

Editorial Board — 2021 to present
Developmental Dynamics

Associate Editor, Neurogenetics & Behavior Section — 2021 to present
GENETICS

Editor — 2022 to 2024
Journal of Cell Biology

Manuscript review

Reviewed for >30 distinct journals, some with multiple reviews — 2005 to 2014
Tracked on Web Of Science — Since 2014
https://www.webofscience.com/wos/author/record/1135014

CONFERENCE ORGANIZATION

Meeting Organizer

Co-Organizer, Southeast Regional Meeting, Atlanta, GA — 2008
Society for Developmental Biology

Co-Chair, Cilia and Centrosomes Mini-Symposium, Philadelphia, PA — 2010
American Society for Cell Biology Annual Meeting

Co-Organizer, The Biology of Cilia and Flagella, Scottsdale, AZ 2017
Federation of American Societies for Experimental Biology (FASEB) Summer Research Conference

Organizer, The Biology of Cilia and Flagella, Snowmass, CO 2019
Federation of American Societies for Experimental Biology (FASEB) Summer Research Conference

Co-Organizer, Southeast Regional Meeting, virtual 2021
Society for Developmental Biology

Session Chair

Session 4: Morphogenesis and Organogenesis, Birmingham, AL March 2009
Southeast Regional Meeting, Society for Developmental Biology

Session 3, "Breaking the Brain", Cancun, Mexico June 2013
Making and breaking the left-right axis: implications of laterality in development and disease satellite symposium to the 17th International Congress of Developmental Biology/72nd Annual Meeting of the Society for Developmental Biology

Session 11, "The Human Ciliopathies", Niagara Falls, NY June 2013
The Biology of Cilia and Flagella, FASEB Summer Research Conference

Session 5: Genetic regulation and networks during patterning, Kennesaw, GA May 2017
Southeast Regional Meeting, Society for Developmental Biology

GRADUATE TEACHING

International and National Teaching

Visiting Professor, Short Course, Cellular Mechanisms of Disease, 1 week May 2016
NOVA Medical School, Universidade Nova de Lisboa, Lisbon Portugal

Short Course: Mouse Development, Stem Cells & Cancer, Cold Spring Harbor, NY
Cold Spring Harbor Laboratory (3 ½ weeks each June)
Co-Instructor 2017, 2018
Instructor 2019

Co-Director, Mouse Engineering Minicourse (virtual), 1 week 2021
Cold Spring Harbor Laboratory

Institutional Teaching (contact hours per year)

IBS 555, Principles of Basic Biomedical & Biological Sciences (5) 2005

BCDB 570r, Introductory Seminar (56) 2005 to 2007

MEDI 545: Human and Mol. Genetics, Small Group Facilitator (28) 2006 to 2007

IBS 561 Eukaryotic Chromosome Organization and Function (6) 2006 to present
Course Director *2014 to 2018*

IBS 540 Model Systems (3) 2007

NS 570r Neuroscience: Communication and Ethics, (56) 2008 to 2012

MD 501: Genetics and Evolution Module, Small Group Facilitator (8) 2008 to 2010

IBS515: Genetics of Stem Cells (28), *Course Director* 2012

NS514 Cellular, Molecular and Developmental Neuroscience 2012 to present
Lecturer (3) *2012 to 2020*
Brain Development Module Coordinator (9) *2020 to present*

IBS515: Genetics of Chromosomes (28), *Course Director* 2014

IBS515: Genetics of Development (28), Course Director 2016

GMB501, Foundations of Genetics and Molecular Biology 2020 to present
Genetic Screens Module (9)

Institutional Workshops

Organizer and presenter, How to Pick a Postdoc 2005 to 2019
Sponsored by the Graduate Division of Biological and Biomedical Sciences

MENTORING

PhD Students Directly Supervised

Christine Larkins*, Biochemistry, Cell and Developmental Biology Program* 2006 to 2010
Current: Senior Scientist, VuEssence, Tampa, FL

Chen-Ying Su, *Genetics and Molecular Biology Program* 2006 to 2011
Current: Assistant Professor, Department of Chemical Engineering and Biotechnology, National Taipei University of Technology

Laura Mariani, Neuroscience Program 2008 to 2016
Current: Senior Recruiter at National Resilience, Inc

Nicole Umberger, *Genetics and Molecular Biology Program* 2008 to 2013
Current: Associate Director of Tempus Labs, Decatur, GA

Sarah Bay, *Genetics and Molecular Biology Program* 2011 to 2017
Current: Scientific Editor & Program Manager, Genetics Society of America

Chao Lin, *Neuroscience Program* 2013 to 2017
Current: Software engineer, VMware, Decatur, GA

Sarah Suciu, *Genetics and Molecular Biology Program* 2015 to 2020
Current: Analyst, Decisive Inc.

Eduardo Gigante, *Neuroscience Program* 2016 to 2021
Current: Postdoctoral fellow, Stolfi Lab, Georgia Institute of Technology

Rachel Bear, *Neuroscience Program* 2020 to present

Postdoctoral Fellows Directly Supervised

Alyssa Bushey Long, Current: Staff Scientist, Caspary lab 2006 to 2014

Vanessa Horner 2007 to 2011
Current: Assistant Director, Cytogenetics and Molecular Genetics Laboratory, Associate Professor, Department of Pathology and Laboratory Medicine, University of Wisconsin

Billie Moore 2008 to 2009
Current: Contract Specialist, TGen Biotechnology, Phoenix, AZ

Karolina Nitsche 2009 to 2012
Current: Director, Emory Gene Targeting and Transgenic Mouse Core

Miao Sun 2010 to 2012
Current: Professor, Institute of Fetal Medicine, Soochow University, Suzhou PRC

Tim Rutkowski 2015 to 2019
Current: Patent Agent at Jones Day, LLP

Sandii Constable 2010 to 2012
Current: Research Manager, Adelaide Centre for Epigenetics, University of Adelaide, Australia

Robert Van Sciver, current fellow 2019 to present

Tiffany Terry, current fellow 2020 to present

Melissa Bentley-Ford 2021 to 2022
Current: Postdoctoral fellow, Dept of Biomedical Engineering, Emory University

Hanh Truong, current fellow 2023 to present

Rotation Students

Lydia Morris, *Genetics and Molecular Biology Program*, 2005
Christine Larkins, *Biochemistry, Cell and Developmental Biology Program,* 2005
Chen-Ying Su, *Genetics and Molecular Biology Program,* Emory University, 2006
Jacob Schreckengost, *Neuroscience Program,* 2006
Connie Arthur, *Biochemistry, Cell and Developmental Biology Program,* 2006
Kisha Scarlett, *Genetics and Molecular Biology Program,* 2007
Nicole Umberger, *Genetics and Molecular Biology Program,* 2008
Laura Mariani, *Neuroscience Program,* 2008
Jennifer Gerfen, *Genetics and Molecular Biology Program,* 2010
Sarah Bay, *Genetics and Molecular Biology Program,* 2011
Kristen Thomas, *Neuroscience Program,* 2011
Julie Fritz, *Biochemistry, Cell and Developmental Biology Program,* 2011
Chao Lin, *Neuroscience Program,* 2013
Kameryn McCarthy, *Genetics and Molecular Biology Program,* 2013
Sarah Suciu, *Genetics and Molecular Biology Program,* 2015
Byron Gardner, *Neuroscience Program,* 2015
Eduardo Gigante, *Neuroscience Program,* 2015
Sarah Mereby, *Genetics and Molecular Biology Program,* 2016
Juan Rodriguez, *Genetics and Molecular Biology Program,* 2016
Stephanie Grewenow, *Genetics and Molecular Biology Program,* 2017
Taylor Smith, *Genetics and Molecular Biology Program,* 2018
Dylan Holder, *Genetics and Molecular Biology Program,* 2018
Rachel Bear, *Neuroscience Program,* 2019
Yasmin Ibrahim, *Biochemistry, Cell and Developmental Biology Program,* 2021

Thesis Committees

Anjali Shah, *Genetics and Molecular Biology Program,* 2005-2009
Christopher Scharer, *Genetics and Molecular Biology Program,* 2006-2009
Rebecca Oas, *Genetics and Molecular Biology Program, ,* 2006- 2011
Jacob Kagey, *Genetics and Molecular Biology Program,* 2006- 2009
Lydia Morris, *Genetics and Molecular Biology Program,* 2007- 2012
Wendy Zinkow, *Genetics and Molecular Biology Program,* 2008- 2012
Rebekah Kushner, *Biochemistry, Cell and Developmental Biology Program*, 2007- 2009
Candice Elam, *Biochemistry, Cell and Developmental Biology Program,* 2007- 2011
Maria Fernanda Chacon Heszele, *Biochemistry, Cell and Developmental Biology Program*, 2007- 2011
Rekha Nair*, Biomedical Engineering Program,* 2007- 2009
Stacey Dutton, *Neuroscience Program,* 2008- 2011
Michael Kelly, *Neuroscience Program,* 2008- 2011
YuHeng Li, *Genetics and Molecular Biology Program,* 2008- 2011
Michael Santoro, *Genetics and Molecular Biology Program,* 2009- 2016
Nikki Sawyer, *Neuroscience Program,* 2009- 2014
Jack Etheredge, *Masters in Biology,* 2009- 2011
Matthew Randolph, *Biochemistry, Cell and Developmental Biology Program,* 2009- 2015
Rasagnya Viswanadha, *Biochemistry, Cell and Developmental Biology Program,* 2010- 2015
Ariana Mullins, *Neuroscience Program,* 2011- 2014
InKi Cho, *Genetics and Molecular Biology Program,* 2011- 2014
Richard Carter, *Genetics and Molecular Biology Program,* 2011- 2014
Jennifer Gerfen, *Genetics and Molecular Biology Program,* 2012- 2015
Chantel Cadwell, *Biochemistry, Cell and Developmental Biology Program,* 2012- 2016
Joe Mertz, *Neuroscience Program,* 2012- 2016
Marko Bajic, *Genetics and Molecular Biology Program,* 2013- 2020
Britanny Phillips, *Genetics and Molecular Biology Program,* 2014- 2018
Stephanie Jones, *Genetics and Molecular Biology Program,* 2014- 2021
George Inglis, *Genetics and Molecular Biology Program,* 2015- 2019
Kameryn Butler McCarthy, *Genetics and Molecular Biology Program,* 2015-2018
Binta Jalloh, *Genetics and Molecular Biology Program,* 2016- 2021
Edwin Corgiat, *Genetics and Molecular Biology Program,* 2016- 2022
Alyssa Scott, *Genetics and Molecular Biology Program,* 2016- 2021
Alaa Alzahrani, Research School of Biology, Australian National University, 2017
Kari Mattison, *Genetics and Molecular Biology Program,* 2017- 2022
Juliet Santiago, *Neuroscience Program,* 2021- present
Jordan Owyoung, *Genetics and Molecular Biology Program,* 2021- present
Pierre Abiven, Department of Biomedicine, University of Basel, Switzerland 2021- present

Undergraduates

Ashley King, Univ. of Georgia student, summer, 2007
Wency Zhao, SURE and SIRE Programs, 2008 -09
Alex Shapiro, earned Honors, 2009- 2010
Nina Patel, SIRE Program, 2010- 2011
Anupriya Gangal, 2011-2013
Ashley Ealey, Agnes Scott College student, 2014

Johanna Ben-Ami, earned Highest Honors, 2015- 2016
Tae Youn Kim, earned Honors, 2015- 2016
Sarah Cubells, University of Connecticut student, summer 2017
Oliver Smith, 2017- 2018
Meghan Taylor, 2018- 2019
Claire Wei, SIRE (S '22), SURE (summer '22)
Harrison Katz, Brown University student, Participant in Summer Undergraduate Program of Renal Research (SUPERR), Dept. of Medicine, summer, 2022.

High School students
Nonye Odukwe, Phillips Andover School, summer 2009
Uswa Khan, Woodward Academy, summer 2018
Kini Bibai, South Cobb High School, NextGen program, Summer 2022
Estela Lozier, Lakeside High School, NextGen program, Summer 2022

GRADUATE TRAINING SERVICE

Institutional

Member, Woodruff Fellowship Selection Committee — 2015 to 2017
Laney Graduate School

Member, Appointments Committee — 2018 to 2020
Laney Graduate School

Member — 2019
Graduate Division of Biological and Biomedical Sciences Review Task Force
Appointed by Dean of Laney Graduate School

Member, Training Grants Data Store Advisory Committee — 2019 to 2022
Emory Library and Information Technology Services

Member, Working Group for Genetics and Molecular Biology Program — 2020
Appointed by Dean of Laney Graduate School

Member, Executive Committee — 2021 to 2024
Laney Graduate School
Chair-elect — *2022 to 2023*
Chair — *2023 to 2024*

Member, Training Grant Program Director's Council — 2022- present
Emory T32 Office

Programs in the Graduate Division of Biological and Biomedical Sciences

Member, Recruitment Committee — 2005 to 2006
Biochemistry, Cell and Developmental Biology Graduate Program

Member, Thesis Proposal Committee — 2005 to 2006
Genetics and Molecular Biology Graduate Program

Member, Oral Exam Committee — 2006 to 2008
Genetics and Molecular Biology Graduate Program

Curriculum Committee — 2008 to 2011

Genetics and Molecular Biology Graduate Program
Member *2006 to 2012*
Chair *2012 to 2017*

Member, Executive Committee 2007 to 2017
Genetics and Molecular Biology Graduate Program

Member, Executive Committee 2008 to 2010
Neuroscience Graduate Program

Member, Oral Exam Committee 2008
Neuroscience Graduate Program

GRANT SUPPORT (DIRECT COSTS)

Active Support

PI, R01DK128902, $450,000 9/2022 to 8/2025
Genetic Dissection of Ciliary ARL13B in Kidney Cystogenesis
NIDDK /National Institutes of Health

PI, R35 GM148416, $2,265,205 1/2023 to 12/2027
Genetic Dissection of Signaling and Cilia
NIGMS /National Institutes of Health

Co-I, R56DE031771, $463,485 9/2022 to 9/2023
Functional validation of sequence variants affecting neurodevelopmental and craniofacial phenotypes
NIDCR/ National Institutes of Health

Pending Support

T32 GM149422 *Genetics Predoctoral Training Program, $4,959,450* 7/2023 to 6/2028
NIGMS /National Institutes of Health, impact score 19, expected to be funded

Previous Support

PI, Hitchings-Elion Career Development Award, $816,000 2000 to 2006
Identification and characterization of novel genes involved in mammalian sex determination
The Burroughs Wellcome Fund

PI, Development Grant Award, $90,000 2004 to 2006
hennin: a novel mechanism of motor neuron specification
Muscular Dystrophy Association

PI, Basil O'Connor Starter Scholar Research Award, $136,364 2007 to 2009
Linking the Structure of Cilia with Cellular Signaling in Specification of the Left-Right Axis
March of Dimes

PI, R01, $874,989 2007 to 2012
Role of Mouse Arl13b in Cell Diversification during Spinal Cord Development
NINDS/NIH

PI, R01 supplement, $129,999 2009 to 2012
Role of Mouse Arl13b in Cell Diversification during Spinal Cord Development
NINDS/NIH

PI, Neuromuscular Disease Research Grant $371,261 2009 to 2012
Defining the Role of Arl13b Interacting Proteins in the Neural-Glial Switch
Muscular Dystrophy Association

Co-Investigator, R01 $300,840, 2009 to 2016
Cadherin Regulation in Dermal Endothelial Cells Left-Right Axis
NIAMS/NIH

Co-Investigator, Pilot Project, $50,000 2010 to 2011
Role of the primary cilium in vascular development and sickle cell disease
Children's Healthcare of Atlanta Research Centers

PI, University Research Council award, $30,000, 2011 to 2012
Identification of novel genes important for dorsal mammalian spinal cord specification
Emory University Research Council

PI, Research Grant, $136,364 2011 to 2013
Role of the primary cilium in vascular development and sickle cell disease Left-Right Axis
Children's Healthcare of Atlanta Research Centers

MPI, R21 $271,511, 2012 to 2014
Modeling TAR Microdeletion Syndrome in Mouse
NHLBI /NIH

MPI, R01 $$1,044,301 2012 to 2017
Characterization of the Schizophrenia-associated 3q29 Deletion in Mouse
NIGMS /NIH

PI, Research Grant $100,000 2013 to 2014
Defining the role of Arl13b in medulloblastoma oncogenesis
CURE Childhood Cancer Foundation

Co-Investigator, R01 $233,259 2013 to 2016
Cellular Mechanisms of Neuronal Metal Transport and Toxicity
NIGMS /NIH

MPI, R56, $82,298 2014 to 2015
Mechanisms underlying Joubert syndrome related brain malformations
NINDS /NIH

PI, Cell Lineage and Differentiation Research Grant $272,727 2013 to 2016
Mechanism of Phosphatidylinositol-4,5-bisphosphate 5-phosphatase Action on Signaling During Mammalian Development
March of Dimes

MPI, R01, $715,790 2014 to 2018
Biology of the ARL13B GTPase
NIGMS /NIH

PI, R01 $605,333 2015 to 2019
Mechanisms underlying Joubert syndrome related brain malformations
NINDS /NIH

Diversity Supplement to R01, $79,529 2017 to 2019

Mechanisms underlying Joubert syndrome related brain malformations
NINDS /NIH

MPI, R56 $427,225 2018 to 2020
Genetic and Molecular Drivers of the Schizophrenia-Associated 3q29 Deletion
NIMH /NIH

Diversity Supplement to R35 $114,928 2020 to 2022
Genetic Dissection of Signaling and Cilia
NIGMS /NIH

PI, R35 GM122549*, $1,112,986* 9/2017 to 8/2023
Genetic Dissection of Signaling and Cilia
NIGMS /National Institutes of Health

Trainee Fellowships

Sponsor, Predoctoral Award, Christine Larkins, $128,540 2008 to 2010
From Cilia to Organ Morphology: Understanding the Left-Right Axis
American Heart Association

Sponsor, NRSA Postdoctoral Award, Vanessa Horner, $205,610 2010 to 2012
Genetic Analysis of Cell Fate Specification in the Mammalian Dorsal Spinal Cord
NICHD /NIH

Sponsor, Predoctoral Award, Laura Mariani, $131,360 2011 to 2013
Cilia-dependent and Independent roles of Arl13b in the dynamic regulation of Shh signaling
American Heart Association

Sponsor, NRSA Predoctoral Award, Sarah Suciu, $132,132 2017 to 2020
The role of Arl13b in transcription-independent Sonic hedgehog regulation of axon guidance
NINDS /NIH

Sponsor, NRSA Predoctoral Award, Eduardo Gigante, $135,048, 2019 to 2021
Defining the relationship of ciliary Arl13b and Smoothened
NINDS /NIH

Sponsor, NRSA Postdoctoral Award, Robert Van Sciver, $211,182, 2020 to 2023
The critical ciliary role of ARL13B in kidney cystogenesis
NINDS /NIH

Sponsor, NRSA Predoctoral Award, Rachel Bear, $139,000 2022 to 2025
Defining the role of cilia in astrocyte development
NINDS /NIH

PUBLICATIONS

Peer-reviewed Journal Publications

1. Guillemot, F., **T. Caspary**, S.M. Tilghman, N.G. Copeland, D.J. Gilbert, N.A. Jenkins, D.J. Anderson, A.L. Joyner, J. Rossant and A. Nagy. Genomic Imprinting of *Mash-2*, a mouse gene required for trophoblast development. *Nature Genetics.* 1995. 9: 235-241. PMID: 7773285
2. Tilghman, S.M., **T. Caspary** and R.I. Ingram. Competitive edge at the imprinted Prader-Willi/Angelman region. *Nature Genetics.* 1998. 18: 206-208. PMID: 9500535

3. **Caspary, T**., M.A. Cleary, C.C. Baker, X-J. Guan and S.M. Tilghman. Multiple mechanisms of imprinting on distal mouse chromosome 7. *Molecular and Cellular Biology.* 1998. 18: 3466-3474. PMID: 9584186
4. **Caspary, T**., M.A. Cleary, E. J. Perlman, P. Zhang, S.J. Elledge, and S.M. Tilghman. Oppositely imprinted genes *p57^{Kip2}* and *Igf2* interact in a mouse model for Beckwith-Wiedemann syndrome. *Genes and Development* 1999. 13: 3115-3124. PMID: 10601037
5. **Caspary, T.**, M.J. García-García, J.T. Eggenschwiler, M.R. Wyler, D. Huangfu, A.S. Rakeman, J.D. Lee, H. L. Alcorn and K.V. Anderson. Mouse *Dispatched homologue1* is required for long-range, but not juxtacrine, Hh signaling. *Current Biology.* 2002. 12: 1628-1632. PMID: 12372258
6. García-García, M.J., J.T. Eggenschwiler, **T. Caspary**, H.L. Alcorn, M.R. Wyler, D. Huangfu, A.S. Rakeman, J.D. Lee, E.H. Feinberg, J.R. Timmer and K.V. Anderson. Analysis of Mouse Embryonic Patterning and Morphogenesis by Forward Genetics. *Proceedings of the National Academy of Sciences.* 2005. 102(17): 5913-9. PMID: 15755804
7. **Caspary, T,** C.E. Larkins and K.V. Anderson. The graded response to Sonic Hedgehog depends on cilia architecture. *Developmental Cell*. 2007. 12: 767-778. PMID: 17488627
8. Alisch RS, Jin P, Epstein M, **Caspary T**, Warren ST. *Argonaute2* Is Essential for Mammalian Gastrulation and Proper Mesoderm Formation. *PLoS Genetics* 2007 3(12): 2565-2571. PMID: 18166081
9. Cantagrel, V., J.L. Silhavy, S.L. Bielas, D. Swistun, S.E. Marsh, J.Y. Bertraud, T. Attié-Bitach, K.R. Holden, W.B. Dobyns, D. Traver, L. Al-Gazali, B.R. Ali, T.H. Linder, **T. Caspary,** E.A. Otto, F. Hildebrandt, C. Gooding, C.A. Johnson, C. Bennett, The International Joubert Syndrome Related Disorders Study Goup, E.M. Valente, C.G. Wood, J.G. Gleeson. Mutations in the cilia gene *ARL13B* lead to Joubert syndrome and related disorders. *American Journal of Human Genetics.* 2008. 83(2):170-9. PMID: 18674751
10. Moore, B.A., Gonzalez Aviles G.D., Larkins C.E., Hillman M.J., **Caspary T**. Mitochondrial retention of Opa1 is required for mouse embryogenesis. *Mammalian Genome*. 2010. 21(7-8): 350-60. PMID: 20652258
11. Shetty, AC, Athri, P, Mondal, K, Horner, VL, Steinberg, KM, Patel, V, **Caspary, T**, Cutler, DJ, Zwick, ME. SeqAnt: A Web Service to Rapidly Identify and Annotate DNA Sequence Variations. *BMC Bioinformatics*, 2010. 11:471. PMID: 20854673
12. Kaiser, W.J., J.W. Upton, A.B. Long, D. Livingston-Rosanoff, L.P Daley-Bauer, R. Hakem, **T. Caspary** and E.S. Mocarski. RIP3 mediates the embryonic lethality of caspase-8-deficient mice. *Nature*, 2011. 471(7338):368-72.PMID: 21368762
13. Patel VC, Mondal K, Shetty AC, Horner VL, Bedoyan JK, Martin D, **Caspary T**, Cutler DJ, Zwick ME. Microarray oligonucleotide probe designer (MOPeD): A web service. *Open Access Bioinformatics.* 2010**.** Nov 1;2(2010):145-155. PMID: 21379402
14. Horner, V.L. and **T. Caspary**. Disrupted dorsal neural tube BMP signaling in the cilia mutant *Arl13b^{hnn}* stems from abnormal Shh signaling. *Developmental Biology.* 2011. 355(1):43-54. PMID: 21539826.
15. Larkins C.E., East M., Gonzalez Aviles G.D., Kahn R.A. , and **T. Caspary**. Arl13b Regulates Ciliogenesis and the Dynamic Localization of Shh Signaling Proteins, *Molecular Biology of the Cell*, 2011. 22(23):4694-703. PMID: 21976698.
16. Sun, M., Mondal, K., Patel, V., Horner, V. L., Long, A. B. , Cutler, D. J. , **Caspary, T*.** and Zwick, M.E.* (*co-senior authors) Multiplex Chromosomal Exome Sequencing

Accelerates Identification of ENU-Induced Mutations in the Mouse, *G3*, 2012. 2:143-150. PMID: 22384391

17. Piotrowska-Nitsche, K. and **Caspary, T**. Live imaging of individual cell divisions in mouse neuroepithelium shows asymmetry in cilium formation and Sonic hedgehog response. *Cilia*, 2012. 1:6. PMID: 23145349.
18. Larkins, C.E., A.B. Long, and **T. Caspary**, Distinct patterns of Nodal and Cerl2 expression contribute to left-right axis specification defects in the *Arl13b^{hnn}* mutant mouse*, Developmental Biology*, 2012. 1;367(1):15-24.
19. Su, C., S.N. Bay, L.E. Mariani, M.J. Hillman, and **T. Caspary**, Temporal deletion of Arl13b reveals mispatterned neural tube corrects cell fate over time*, Development,* 2012. 139(21): 4062-71. PMID: 23014696
20. Piotrowska-Nitsche, K. and **Caspary, T.** Ex vivo live imaging of single cell divisions in mouse neuroepithelium, *JoVE*, 2013 Apr 30;(74):e4439. PMID: 23666396
21. Higginbotham, H., Eom, T.-Y., Mariani, L. E., Bachleda, A., Gukassyan, V., Hirt, J., Cusack, C., Lai, C., and **Caspary, T.***, Anton, E. S.* (*co-senior authors) Arl13b in primary cilia regulates the migration and placement of interneurons in the developing cerebral cortex. *Dev Cell,* 2012. 23:925-38. PMID: 23153492.
22. Higginbotham, H., Guo, J., Yokota, Y., Umberger, N. L., Su, C.Y., Li, J., Verma, N. and **Caspary, T.*,** Anton, E. S.* (*co-senior authors) Arl13b-regulated activities of primary cilia are essential for the formation of the polarized radial glial scaffold. *Nature Neuroscience*. 2013. 16(8):1000-7. PMID: 23817546.
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39. Suciu SK, Long AB and **Caspary T.** 2021. Smoothened and ARL13B are critical in mouse for superior cerebellar peduncle targeting. *GENETICS*. 2021. Aug 9: 218(4). doi: 10.1093/genetics/iyab084 PMID: 34132778
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Review Articles

1. **Caspary, T**. and K.V. Anderson. Patterning cell types in the dorsal spinal cord: what the mouse mutants say. *Nature Reviews Neuroscience* 2003. **4**:289-97. PMID: 12671645
2. **Caspary, T.** and K.V. Anderson. Uncovering the Uncharacterized and Unexpected: Unbiased, Phenotype-Driven Screens in the Mouse. *Developmental Dynamics*. 2006. **235**(9): 2412-2423. PMID: 16724327
3. Bay, S.N., **T. Caspary**, What are those Cilia Doing in the Neural Tube? *Cilia,* 2012 Oct 1;1(1):19. PMCID: PMC3556023
4. Burdine, RD and **T. Caspary**. Left-Right Assymetry: Lessons from Cancun. *Development* 2013. 140(22):4465-70. PMID: 24194469.
5. Rutkowski TP, Schroeder JP, Gafford GM, Warren ST, Weinshenker D, **Caspary T**, Mulle JG. Unraveling the genetic architecture of copy number variants associated with schizophrenia and other neuropsychiatric disorders. *Journal of Neuroscience Research* 2017. 95(5):1144-1160 PMID: 27859486.
6. Fisher S, Kuna D, **Caspary T**, Kahn RA, Sztul E. ARF family GTPases with links to cilia. *Am J Physiol Cell Physiol*. 2020. 319(2):C404-C418. PMID: 32520609.
7. Gigante ED, **Caspary T**. Signaling in the primary cilium through the lens of the Hedgehog pathway. *Wiley Interdiscip Rev Dev Biol*. 2020. 9(6):e377. PMID: 32084300.
8. Gigante ED, **Caspary T**. Cilia Biology: You're It! Tagging Proteins for Ciliary Removal. *Curr Biol.* 2021. 31(2):R80-R82. PMID: 33497637.
9. Suciu SK, **Caspary T**. Cilia, neural development and disease. *Semin Cell Dev Biol.* 2021. 110:34-42. PMID: 32732132.
10. Bear, RM and **Caspary** T. Cilia bent out of shape over dysfunctional astrocyte mitochondria. *Journal of Cell Biology*. 2023. 222(1) PMID: 36525027

Book Chapters

1. **T. Caspary.** 2010. Phenotype-driven mouse ENU mutagenesis screens**.** *Methods in Enzymology*, 477:313-27. PMID: 20699148
2. Horner, V.L. and **T. Caspary.** Creating a "Hopeful Monster": Mouse Forward Genetic Screens. Vertebrate embryogenesis *Methods in Cell Biology* 2011;770:313-36. PMID: 21805270.
3. Mariani, L.E. and **T. Caspary,** 2013. Cilia and Shh signaling in neural development, *Cilia and Neuroscience*, Springer, 55-82.
4. **T. Caspary**, Marazziti, D. and N.F. Berbari. Methods for Visualization of Neuronal Cilia. *Cilia: Methods in Molecular Biology,* ed. P. Satir and S.T. Christiansen. Springer. 2016; 1454:203-14. doi: 10.1007/978-1-4939-3789-9_13. PMID: 27514924.

Books Edited

K.L. Tucker and **T. Caspary**. (eds.) Cilia and Nervous System Development and Function. 2013. Dordrecht Springer.

INVITED TALKS

International and National

1. *Tails of Hats, Cilia and Hedgehog.* Stony Brook University, Dept. of Molecular Genetics and Microbiology. 3/14/2005.
2. *Sonic Hedgehog acts first as an instructive morphogen and then as a permissive signal in patterning the neural tube.* Children's National Medical Center 3/23/11

3. *Interpreting Sonic Hedgehog through the Primary Cilium,* University of California, San Francisco Stem Cell Center, 11/8/11
4. *Interpreting Sonic Hedgehog through the Primary Cilium*, The University of North Texas, 10/26/12
5. *Interpreting Sonic Hedgehog through the Primary Cilium,* University of Florida, Dept of Molecular Genetics and Microbiology, 4/1/14
6. *Interpreting signaling through the Primary Cilium*, Mt. Sinai School of Medicine, Dept. of Regenerative Medicine and Dept. of Ophthalmology. 12/11/14
7. *Interpreting signaling through the Primary Cilium*, NOVA Medical School, Universidade Nova de Lisboa, (Lisbon Portugal) 3/9/2016
8. *Interpreting signaling through the Primary Cilium*, University of West Virginia, Dept. of Biochemistry, 8/23/2016
9. *Signaling through the Primary Cilium*, Department of Epigenetics and Molecular Carcinogenesis, MD Anderson Cancer Center, 8/20/18
10. *Signaling through the Primary Cilium*, Department of Genetics, Washington University in St. Louis, 8/28/18.
11. *Signaling through the Primary Cilium*, Center for Developmental Biology and Regenerative Medicine, Seattle Children's Hospital, 11/1/18
12. *Signaling through the Primary Cilium*, Division of Endocrinology and Metabolism and Diabetes Center, Asan University, Seoul, South Korea. 9/18/2018
13. *Signaling through the Primary Cilium*, Department of Pharmacology, Yonsei University College of Medicine, Seoul, South Korea. 9/19/2018
14. *Uncoupling Cilia and Hedgehog*, Institute of Molecular Biology , University of Oregon, 1/28/2020
15. *Uncoupling Cilia and Hedgehog*, hosted by the Trainee Committee of the Developmental and Stem Cell Biology (DSCB) Research Program at the Hospital for Sick Children, Toronto, Canada, 2/26/2020
16. *Uncoupling Cilia and Signaling*, Institut du Fer à Moulin, INSERM- Sorbonne University, Paris, France (Virtual talk) 6/10/2021
17. *Uncoupling Cilia and Signaling*, Dept of Cell Biology Seminar Series, University of Oklahoma, 3/9/2022
18. *Distinct coupling of signaling and cilia in embryos, kidney cysts and obesity*, Dept of Pharmacology Seminar Series, University of Virginia, 9/22/2022
19. *Ciliopathy Underpinnings*, Albert Einstein College of Medicine-Montefiore Medical Center, Neurology Grand Rounds, 9/29/2022
20. *Untangling Ciliary Signaling and Cilia*, Dept of Biology Seminar Series, University of California, Merced 3/8/2023

Regional

1. *Tails of Hats, Cilia and Hedgehog*. University of Georgia, Dept. of Cell Biology, 8/30/2005.
2. *Cilia and Signaling in Mammalian Development,* University of Georgia, Dept. of Genetics, 11/5/08
3. *Cilia and Sonic Hedgehog Signaling* Morehouse College, Dept. of Biology, 3/18/11
4. *Interpreting Sonic Hedgehog through the Primary Cilium,* Kennesaw State University, *11/2/2012*

5. *Interpreting signaling through the Primary Cilium*, Georgia Reagents University, Department of Cellular Biology and Anatomy. 10/15/15
6. *Uncoupling Cilia and Signaling,* University of Georgia, Dept. of Genetics, 9/1/21

Institutional

1. *Cilia architecture is required for the graded response to Sonic Hedgehog* Emory University, Dept. of Cell Biology. 9/13/06
2. *Cilia architecture is required for the graded response to Sonic Hedgehog* Emory University, Dept. of Pathology. 11/7/06
3. *Arl13b's role in motor neuron and oligodendrocyte differentiation* Emory University, Dept. of Physiology. 6/2008
4. *Cilia and Hedgehog Signaling,* Winship Cancer Institute, Emory University, Cancer Cell Biology Program, 4/7/2011.
5. *Interpreting Sonic Hedgehog through the Primary Cilium,* Emory Dept. of Neurology, *1/31/13*
6. *Interpreting Sonic Hedgehog through the Primary Cilium* Emory Dept. of Human Genetics, 9/9/13
7. *Interpreting signaling through the Primary Cilium,* Emory University, Dept. of Cell Biology. 12/3/14
8. *Ciliopathy Underpinnings*, Grand Rounds, Emory Dept. of Human Genetics, 9/25/17
9. *Uncoupling Signaling and Cilia*, Emory Dept. of Human Genetics, 10/7/19
10. *Uncoupling Signaling and Cilia*, Emory Dept. of Human Genetics, 3/21/22

INVITED CONFERENCE TALKS

International and National

1. *Arl13b in mammalian signaling and cilia*. Experimental Biology 2008/American Physiological Society symposium. San Diego , CA. 4/5-8/2008
2. *Molecules in transit: how morphogens move between and within cells.* Santa Cruz Developmental Biology Meeting, Santa Cruz, CA. 6/26-29/2008
3. *Cilia and Sonic Hedgehog Signaling.* Cilia, Mucus and Mucociliary Interactions Gordon Research Conference, Il Ciocco, Italy, 2/22-27/2009.
4. *Cilia and Hedgehog signaling.* 2010 International Society for Developmental Neurobiology Meeting, Estoril, Portugal, 6/5-9/2010.
5. *Arl13b Interacts with the Exocyst Complex to Regulate Ciliogenesis*. American Society for Cell Biology, Cilia and Centrosomes Mini symposium, Philadelphia, PA. 12/13/2010.
6. *Mechanism of laterality defects in Joubert Syndrome and related disorders*. Making and breaking the left-right axis: implications of laterality in development and disease satellite symposium to the 17th International Congress of Developmental Biology/72nd Annual Meeting of the Society for Developmental Biology. Cancun, Mexico. 6/15-20/2013.
7. *Molecular Pathogenesis of Joubert Syndrome* Biology of Cilia and Flagella, Federation of American Societies for Experimental Biology (FASEB) Summer Research Conference, Niagara Falls, NY. 6/23-28/2013.
8. *National Institutes of Health,* hosted by NINDS and NICHD, *Midbrain/Hindbrain Malformations and Hydrocephalus Workshop*, speaker and participant. Bethesda, MD. 6/23-24/2014
9. *Molecular Pathogenesis of Joubert Syndrome,* CILIA2014, Paris, France. 11/18-21/2014.

10. *Molecular Pathogenesis of Joubert Syndrome* Biology of Cilia and Flagella, Federation of American Societies for Experimental Biology (FASEB) Summer Research Conference, Snowmass, CO. 7/19- 24/2015.
11. Keynote Speaker, *Interpreting signaling through the Primary Cilium*, Cilia Symposium, American Society of Cell Biology Mini-Symposium, University of California, San Francisco, Mission Bay Campus, 1/23/2016
12. *Interpreting signaling through the Primary Cilium*, Biology and Therapy of the Ciliated Senses Symposium, University of Florida, Centers for Vision Research and Smell and Taste, Gainesville, FL. 1/23/2017.
13. *Signaling through the Primary Cilium*, Cilia in Development and Disease Symposia, 2018 Korean Society for Molecular and Cellular Biology. Seoul, South Korea, 9/17/2018
14. *Uncoupling Signaling and Hedgehog*, Cilia and Centrosomes Meeting, Cold Spring Harbor Asia, Suzhou, PRC, 10/13-18/2019
15. *Uncoupling Cilia and Signaling*, The Crick Beddington Developmental Biology Symposium, The Francis Crick Institute, London, UK, October 9-10, 2022

Regional

1. *Cilia-dependent signaling in mammalian development,* Southeast Regional Meeting for the Society for Developmental Biology, Birmingham, AL 3/26/09
2. *Cilia and Sonic Hedgehog signaling*. Southeast Regional Meeting for the Society for Developmental Biology, Gainesville, FL 5/18/11
3. *Interpreting signaling through the primary cilium.* Keynote Speaker, University of Georgia Developmental Biology Alliance Retreat. Athens, GA *5/5-6/2017*
4. *Interpreting signaling through the primary cilium.* Southeast Regional Meeting for the Society for Developmental Biology, Kennesaw, GA *5/18-20/2017*

COMMUNITY OUTREACH

Coordinated Neuroscience graduate student outreach activities to Atlanta Public Schools
Emory School of Medicine Pipeline Program
2009-2011