

CURRICULUM VITAE

MIRIAM B. GOODMAN, PH.D.

Stanford University
Department of Molecular and Cellular Physiology

Academic Phone: (650) 721-5976
Academic FAX (650) 725-8021
e-mail mbgoodman@stanford.edu
web <http://med.stanford.edu/goodmanlab.html>

A. EDUCATION and TRAINING

1986 ScB, Biochemistry, Brown University, Providence, RI
1995 PhD, The University of Chicago, Chicago, IL
Neurobiology, Laboratory of Jonathan J. Art
1995-1997 Postdoctoral Fellow, Institute of Neuroscience, University of Oregon, Eugene, OR,
Laboratory of Shawn R. Lockery
1997-2001 Postdoctoral Fellow, Department of Biological Sciences, Columbia University, New York,
NY, Laboratory of Martin Chalfie

B. APPOINTMENTS and POSITIONS

Summer 1985 Summer Intern, AT&T Bell Laboratories, Holmdel, NJ
1986-1988 Biologist, Laboratory of Neurophysiology (Lab Head: Jefferey L. Barker), NINDS,
National Institutes of Health (NIH), Bethesda, MD
1988-1995 Graduate Research and Teaching Assistant, The University of Chicago
1995-1997 Postdoctoral Fellow, University of Oregon, Laboratory of Shawn R. Lockery
1997-2001 Postdoctoral Fellow, Columbia University, Laboratory of Martin Chalfie
2002-2010 Assistant Professor of Molecular and Cellular Physiology, Stanford University
2010-2016 Associate Professor of Molecular and Cellular Physiology, Stanford University
2016- Professor of Molecular and Cellular Physiology, Stanford University
2016- Professor (by courtesy), Department of Mechanical Engineering, Stanford University
2010-2013 Associate Chair, Department of Molecular and Cellular Physiology
2013-2017 Deputy Director, Wu Tsai Neurosciences Institute
2014- Chair, Wu Tsai Neurosciences Institute Interdisciplinary Scholars Program
2017- Chair, Department of Molecular and Cellular Physiology
2002- Neurosciences Interdepartmental Training Program, Training Faculty, Program
Committee
2002- Biophysics Interdepartmental Training Program
2004- Cell and Molecular Biology Training Program, Program Committee

C. AWARDS and HONORS

2002-2005 Alfred P. Sloan Fellow
2002 Katherine McCormick Travel Award
2002 Terman Fellow, Stanford University
2002 Donald B. and Delia E. Baxter Faculty Scholar
2004 Eppendorf & *Science* Prize in Neurobiology
2005-2008 McKnight Foundation Scholar
2005-2008 Klingenstein Endowment for Neuroscience Fellow
2010 Faculty Fellow, Clayman Institute for Gender Research
2011 Faculty Leadership Fellow, Stanford University School of Medicine
2011 Excellence in Teaching, Faculty Teaching Award, Stanford Medicine
2014 Excellence in Teaching, Faculty Teaching Award, Stanford Medicine
2014 Kate and Michael Bárány Young Investigator Award, Biophysical Society
2015 Excellence in Diversity and Inclusion Award, Stanford Medicine
2019 Landis Outstanding Mentorship Award, NINDS

Professional Memberships

1990-present Member, Society for Neuroscience
 1997-present Member, Biophysical Society
 2010-present Member, Genetics Society of America

D. RESEARCH SUPPORT**Active**

2017-2025 NINDS, R35NS105092-01 (PI: Goodman)
The biophysics of skin-neuron sensory tactile organs and their sensitivity to mechanical and chemical stress
 Investigate how the biophysics of skin-neuron composites affects somatosensation and the sensitivity of neurons to mechanical and mechanical stress (e.g. chemotherapy-induced peripheral neuropathy)

2018-2020 NIGMS, R21GM129879-02 (MPI: Goodman, Dionne)
Developing nanoparticle optical reporters of compressive, tensile, and shear forces for use in living cells and tissues.
 Develop pressure-sensing upconverting nanoparticles to detect forces in living cells and tissues.

2019-2021 Wu Tsai Neuroscience Institute, NeuroPlant Project (MPI: Goodman, Clandinin, Rhee)
Leverage plant-nematode interactions to identify compounds derived from medicinal plants that affect the nervous system and use genetic tools to discover their animal targets.

Completed

1997-2000 **PI:** *Molecular Basis of Mechanotransduction.* National Institutes of Neurological Disorders and Stroke (F32DC000272)

2004-2018 **PI:** *Molecular Basis of Sensory Transduction in C. elegans*
 Continuously funded through three award periods, NINDS, R01NS047715-11

2002-2005 **PI:** *Pharmacology of DEG/ENaC Channels.* American Heart Association, Western States Affiliate (Grant No. 0265151Y).

2003-2005 **Co-PI:** *Biomechanics of Sensory Mechanotransduction.* Stanford Office of Technology Licensing (OTL) Seed Grant. (PI Beth L. Pruitt)

2005-2008 **PI:** McKnight Foundation Scholar

2005-2008 **PI:** Klingenstein Endowment for Neuroscience Scholarship

2007-2009 **PI:** *A C. elegans Model of Lambert-Eaton Syndrome and Disorders of the Neuromuscular Junction.* Muscular Dystrophy Association (Grant No. MDA4206)

2006-2009 **Co-PI:** *Gating Mechanisms of Metazoan Sensory Mechanotransduction Channels.* BioX Interdisciplinary Initiatives Program (BioX IIP, Co-PI Eric Darve)

2009-2011 **PI:** *Mechanobiology of Sensory Mechanotransduction Channels.* Weston-Havens Foundation Seed Grant. (Co-PI Beth L. Pruitt).

2007-2011 **PI:** *Temperature Sensation and Its Behavioral Consequences.* (NINDS R21NS061147)

2007-2012 **PI:** *An Integrated Approach to Understanding Temperature Sensation and Its Behavioral Consequences.* (NSF IOS0725079, Biological Sciences Directorate)

2009-2012 **Co-I:** *Molecular and Neuronal Mechanisms of Thermosensory Behavior.*
 (R01GM081639-Competitive Collaborative Supplement; PI Piali Sengupta, Brandeis)

2010-2012 **Co-PI:** *Novel Molecular Force Probes to Investigate the Mechanism of Touch Sensation.*
 BioX Interdisciplinary Initiatives Program (BioX IIP, Co-PI Alex R. Dunn)

2012-2013 **Co-PI:** *See the Force: Novel Probes of Mechanical Force Propagation in the Nervous System.* (CNC-Cracking the Neural Code Seed Grant, Co-PI: Alex R. Dunn)

2013-2015 **PI:** *Small Molecule Treatments for Chemotherapy-Induced Peripheral Neuropathy*
 (SPARK & BioX Neuroventures Seed Grants, Stanford University, Co-PI: David Yeomans)

2014-2016 **Co-PI:** *Can kinase inhibitors prevent chemotherapy-induced peripheral neuropathy (CIPN)?* (Discovery Innovation Funds, Stanford Medicine, PI: C. Pacarinsak)

2007-2016 **PI:** *Force Clamp Systems for Evaluation of Mechanotransduction* (R01EB006745-08; Multi-PI: Goodman, Pruitt).

- 2015-2017 Neurocircuit, SNI Big Ideas
Investigating the neural and molecular basis of neural stimulation by ultrasound.
- 2015-2020 **PI:** *Genetic and Physical Basis of Mechanical Neuroprotection*
Investigate the role that actin-spectrin networks have in protecting peripheral neurons from mechanical stress. (NINDS, R01NS092099)
- 2016-2018 **Co-PI:** BioX Interdisciplinary Initiative Program (Co-PI: Goodman)
in vivo biological force sensing with upconverting nanoparticles
PI: J. A. Dionne (Materials Science)

E. PUBLIC and PROFESSIONAL SERVICE

National and International Service and Leadership

Advisory boards

Wormboard, Representative for the US West Coast (2015-); Biophysical Society/Institute of Physics e-books (2017-2020);

Journal service

2009-2013: Academic Editor, PloS Genetics; 2009-: Editorial Board, Frontiers in Neural Circuits; 2011-14 Editorial Board, Journal of General Physiology; 2013-: Editorial Board Member, Section on Membrane Proteins, Biophysical Journal; 2016-: Editorial Board, Current Opinion in Neurobiology; 2016-: Reviewing Editor, JNeuroscience (2018-2020); eNeuro (2017-2020).

Peer Review, Grants, Non-Federal

1997, 2005: Biotechnology and Biological Sciences Research Council (BBSRC/UK); 2005: Member, Western Review Consortium 5B, AHA (US); 2005: US-Israeli Bi-National Science Foundation; 2008: Canadian Institutes of Health Research (CIHR); 2012, 2013: Fondazione Cariplo (Italy); 2013: Boehringer-Ingelheim Fonds (Germany); 2007-present: *ad hoc* review HFSP fellowships; 2014: Wellcome Trust (UK); 2016: Deutsche Forschungsgemeinschaft (DFG, Germany).

Peer Review, Grants, Federal

1997-present: *ad hoc* reviews for NSF; 2011: Member, NSF-Integrated Organismal Systems panel; 2016: Member, NSF Biomechanics and Mechanobiology (BMMB) panel; 2002-present: *ad hoc* member for multiple review panels for K99 awards (Pathways to Independence), F32/F31 (NRSA), SEP for NCRR, NTRC study section, DDK-C study section, SEP for NINDS R35 awards, SCS study section; 2017-present: member, SPS study section.

Peer-review, Research manuscripts

(alphabetical order) Biophysical Journal, Cell, Cell Reports, Current Biology, Cytoskeleton, eLife, Genetics, Genetics-G3, Journal of Cell Biology, Journal of Experimental Biology, Journal of General Physiology, Journal of Neurophysiology, Journal of Neurobiology, Journal of Neuroscience, Journal of Neuroscience Methods, Nature, Nature Communications, Nature Methods, Nature Nanotechnology, Nature Neuroscience, Nature Protocols, Neuron, Neuroscience Letters, Molecular BioSystems, PloS ONE, PloS Biology, Pflugers Archiv, Proceedings of the National Academy of Sciences, Science, Trends in Neuroscience, Wormbook.

Scientific Meeting Organization

(chronological order) 2002: *Electrophysiology*, West Coast Worm Meeting, San Diego, CA USA; 2003: Co-chair, Minisymposium, *Membrane Cytoskeleton Interactions*, 43rd Annual ASCB Meeting, San Francisco, CA USA; 2004: Chair, Minisymposium, *Molecules and Mechanisms of Mechanotransduction*, Society for Neuroscience Annual Meeting; 2006: Co-organizer, 1st International Meeting on *C. elegans* Neurobiology; 2010: Chair, Society for Neuroscience Nanosymposium, *Receptors: Cellular and Molecular Mechanisms of Transduction*; 2014: Chair, 68th Annual Society of General Physiologists Meeting, Woods Hole, MA; 2015: Chair, Force-gated Ion Channels, Janelia Farm; 2018: Force-gated Ion Channels, MDC, Berlin, Germany.

Professional Societies

Society for Neuroscience (1989-); Biophysical Society (1997-); American Society for Cell Biology (2002-); Genetics Society of America (2008-)

University Service

Pre- and Postdoctoral Trainee Recruitment and Training

2002-: Member, Graduate Admissions Committees for Biophysics, Molecular and Cellular Physiology, and Neurosciences, Stanford University; 2007-11: Founding Chair, Curriculum Committee for Neurosciences Graduate Program; 2002-09, 2016-: Member, Steering Committee, Neurosciences Graduate Program; 2011: Member, Provost's Task Force on Postdoctoral Mentoring; 2010-12: Member, Committee on Reinventing Graduate Education; 2010-: Member, Committee on Short Graduate Courses in Biosciences; 2014-2017: Member, Committee on Graduate Admissions and Programs (CGAP); 2016-2018: Steering Committee Member (voting), Stanford Medicine Teaching and Mentoring Academy.

Service center, Advisory board

2007-2018 Member, Advisory Board, Cell Sciences Imaging Facility (CSIF); 2015-2017: Member, Advisory Board, Neurosciences Research Core.

Faculty Recruitment

2005, 2006: Dept. of Otolaryngology, Head and Neck Surgery (OHNS), Auditory Research Faculty; 2008: Avram Goldstein Chair; 2009, 2011: Translational Neuroscience; 2011: Dept of Molecular and Cellular Physiology; 2015: Stanford Neurosciences Institute and Bioengineering Joint Search, *role*: Chair; 2016: Stanford ChemH Institute, Junior Faculty Member Search.

Seminar series

Faculty Director, Molecular and Cellular Physiology Seminar Series, 2005-2011
Steering Committee, Kathleen D. McCormick Distinguished Lecturer Series, 2012-present

F. TEACHING

Classroom Teaching

Graduate Courses

2003-10: Course Director, MCP 256 How Cells Work; 2004, -06, -09, 13: Course Director, MCP 216/NBIO 216, Genetic Analysis of Behavior; 2005-: Lecturer, Stanford Intensive Neuroscience (SIN); 2011-2013: Course Director, SOMGEN210A/B Empowering Emerging Scientists; 2012-: Course Director/Instructor, Biosciences 200, Foundations in Experimental Biology; 2017-: Diversity and Inclusion in Science (DAIS, BIOS225), DataLucence::Images (BIOS254).

Undergraduate courses

2006, -10: Guest Lecturer, Human Biology 4A The Human Organism; 2009: Guest Lecturer, Biology 196 Neural Systems and Behavior; 2011: Guest Lecturer, Biology 196 Neural Systems and Behavior.

Intensive short course

Teaching Assistant, Neural Systems and Behavior, Marine Biological Laboratories, 2000, 2001
Lecturer, *C. elegans*, Cold Spring Harbor Laboratory Short Course, 2010

Laboratory Training

Faculty

2008: Lucinda Carnell, Assistant Professor, Central Washington University, ASCB MAC Visiting Professor;
2008: Sandhya Koushika, Lecturer, Tata Institute of Fundamental Research, Bangalore, India, Associateship in Niche Areas.

Postdoctoral Scholars: Current

Lingxin Wang, PhD (Genetics, Michigan State University), 2017-
Ehsan Rezaei, PhD (Mechanical Engineering, University of Nebraska), 2017-
Alakananda Das, PhD (Molecular and Cellular Biophysics, UNC), 2016-

Postdoctoral Scholars: Past

Juan G. Cueva, PhD (Neurobiology, UCLA), MBA (Haas School of Business), 2003-2009
APA National Research Service Award (NRSA), 2004-2007
Previously: Scientist, Aratome, LLC

Now: Associate, AMD Venture Capital Group

Bronwyn L. MacInnis, PhD (Neurobiology, University of Alberta), 2004-2008

HFSP Long-term Post-doctoral Fellowship, 2005-2008

Previously: Research Management Liaison, Wellcome Trust (2008-2014)

Now: Assistant Director, Malaria Research, Broad Institute (2014-)

Shana L. Geffney, PhD (Biology, Utah State University), 2005-2011

Stanford Medicine Dean's Fellowship, 2005-2006;

Helen Hay Whitney Fellowship, 2007-2010

Now: Assistant Professor, Utah State University-Uintah Basin, Vernal, UT.

Dominique A. Glauser, PhD (Biology, University of Geneva), 2008-2010

Swiss National Science Foundation, 2008-2009,

Stanford Medicine Dean's Fellowship, 2009-2010

Now: Professor of Biology, University of Fribourg, Switzerland

Dong Wang, PhD (Biology, Hong Kong University), 2009-2012

Stanford Medicine Dean's Fellowship, 2010-2011

Previously: Research Associate (Anesthesiology, Stanford)

Now: Senior Scientist, Nevro Medical Devices

Amy L. Eastwood, PhD (Chemistry, California Institute of Technology), 2008-2013

Stanford Medicine Dean's Fellowship, 2009-2010

Ruth L. Kirschstein National Research Service Award (NRSA), 2010-2013

Valeria Vásquez, PhD '08 (Biophysics, University of Virginia), 2009-2014

American Heart Association Postdoctoral Fellowship, 2010-2013

Now: Associate Professor, University of Tennessee Medical Center, Memphis, TN

Samuel Lasse, PhD (Molecular and Cellular Biology, UCSD), 2011-2014

NIH IRACDA Fellowship (2011-14)

Now: Technical Support Specialist, Fluidigm, Inc

Diana Koulechova, PhD (Molecular and Cell Biology, University of California, Berkeley), 2014-2015

Now: Senior Scientist II, Boehringer-Ingelheim, Inc., Fremont, CA

Michael Krieg, PhD (Cell Biology, TU Dresden, Germany), 2010-2016

HFSP Long-Term Fellowship (2010-13); K99 Pathways to Independence Award (2014-2016)

Now: Group leader, ICFO, Barcelona, Spain

Holger Fehlauer, PhD (Physics, University of Bonn, Germany), 2015-2017

Now: Software Engineer, Leica Microsystems

Jan Kubanek, PhD (Neurobiology, Washington University at St. Louis), 2015-2017

Stanford Medicine Dean's Fellowship, 2016-2017,

K99/R00 Pathways to Independence Award, 2017-2018

Now: Assistant Professor, Bioengineering, University of Utah, Salt Lake City, UT

Sylvia Fechner, PhD (Biophysics; University of Bonn, Germany), 2014-

German Research Foundation (DFG) Fellowship, 2016-2017

Now: Staff Research Associate, MCP, Stanford

Dail Chapman, PhD (Biophysics, UC Irvine), 2018-2020

Stanford Medicine Dean's Fellowship, 2019-2020

Ruth L. Kirschstein Postdoctoral Fellowship, *declined*

Now: Assistant Professor (Teaching), Georgetown University, Washington, DC

Graduate Students: Current

Joy Franco, BS (San Jose State University), PhD Candidate, Mechanical Engineering

Co-advised with B. L. Pruitt, Mechanical Engineering, 2017-

Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN), 2019

Lucero Rogel, BS (UC Santa Cruz), PhD Candidate, Molecular and Cellular Physiology, 2017-

Co-advised with B. Sattley, Chemical Engineering, 2020-

BioX Stanford Interdisciplinary Graduate Fellowship, 2020-

Graduate Students: Past

Daniel Ramot, PhD, Stanford Neuroscience, 2002-2007

Previously: Project Manager, D. E. Shaw Research, New York, NY, 2008-2012.

Now: Co-founder and CEO Via, Inc.

Austin L. Brown, PhD, Stanford Biophysics, 2002-2007

Previously: AAAS Science and Technology Policy Fellow (DOE),

Senior Analyst, Strategic Planning, National Renewable Energy Laboratory

Assistant Director, Clean Energy and Transportation Policy, White House Office of Science and Technology Policy

Now: Executive Director, UC Davis Policy Institute for Energy, Environment and the Economy

Sung-Jin Park, PhD, Stanford Mechanical Engineering, 2004-2009

Previously: Postdoctoral Scholar, Harvard University, Laboratory of Kit Parker

Now: Assistant Professor, Georgia Tech University

Brandon E. Johnson, PhD, Molecular and Cellular Physiology, 2004-2010

Previously: Independent Business-Owner, Advantage Tutoring; Developmental Math Instructor, Menlo College

Now: Postdoctoral scholar, University of Hawaii

Joseph C. Doll, PhD, Stanford Mechanical Engineering, 2006-2012

NSF Graduate Research Fellowship, 2006-2009

NDSEG Fellowship, 2009-2012

Previously: MEMS Development Engineer at SiTime, Inc.

Recently: Senior Systems Engineer, Apple, Inc.

Bryan Petzold, PhD, Stanford Mechanical Engineering (2013)

NSF Graduate Research Fellowship, 2008-2011

Now: McKinsey Consulting Group

Eileen Mazzochette, PhD, Stanford Electrical Engineering (2016)

Now: Engineer, Apple, Inc.

Dean Lockhead, PhD Stanford Molecular and Cellular Physiology (2016)

SGF Fellowship (2012-15)

Now: Consulting Associate, Charles River Associates

Jana Lim, BA (UC Berkeley), PhD, Neuroscience (2017)

NSF Graduate Research Fellowship, 2012-2015

Co-advised with A. Brunet, Genetics, since 2014

Now: Regional Manager, Asia at UCLA Health

Adam Nekimken, BS (Gonzaga University), PhD Candidate, Mechanical Engineering, 2013-

Co-advised with B. L. Pruitt, Mechanical Engineering, 2013-2019

Ruth L. Kirschstein NRSA Fellowship, 2017-2019

Now: Principal Engineer, Fullmoon Sensors

Samata Katta, BA (UC Berkeley), PhD Candidate Neuroscience, 2011-

Ruth L. Kirschstein NRSA Fellowship, 2015-2017

Now: Science Policy fellow, American Society of Human Genetics

Undergraduates

Namiko Abe, BS MIT, PhD, Washington University at St. Louis, SSRP 2002

Daniel Lara, BA University of New Mexico, SSRP 2004

Adrienne Yanez, BS Perdue University, PhD, Harvard University, SSRP 2005

Tim Hau-Chen Lee, BS UCSD, MD SUNY Buffalo, Summer 2006

now: Surgical Resident, Stanford Hospital

Tommie R. Berry, Jr., BS Morehouse, MD University of Louisville, SSRP 2007

now: Practicing physician, Chicago, IL

Nicole Titus, BS Chauminade University, SSRP 2008

Misty Montoya, BS San Jose State University, Summer 2008

now: MD, PhD Completed in 2016, Resident

Don Vongviphut, BS Stanford University, BioX URP 2009
Chloé Powell, BS University of Michigan, SSRP 2010
now Clinical Research Assistant at Children's National Health System
Erika M. Nieves, BS University of Malaguez, Puerto Rico, SSRP 2010
now PhD candidate in Biophysics, University of Michigan
Amelia Woodruff, BA Howard University, SSRP 2011
Virginia Wang, BS Stanford University, BioX URP 2011
Victoria Hoelschler, BS Barry University (2015), SSRP 2014
Kevin McPherson, BS Emory University (2016), SSRP 2014
now Postbaccalaureate scientist, National Institutes of Health (NIH)
Cristina Maria-Rios, BS University of Puerto Rico (2016), SSRP 2015
now PhD candidate in Neuroscience, University of Michigan
Divya Gopisetty, Stanford University, 2014-2018
now MD/PhD student, University of Michigan
Sierra Lear, Tulane University, SSRP 2017
now PhD student, UC Berkeley
Isabel D'Alessandro, Wellesley College, SSRP 2017
Marissa Maroni, Bridgewater State College, SSRP 2018
now PhD student, University of Pennsylvania
Sarah Sackey, UCLA, SSRP 2019
now PhD student, Stanford University
Muntathar J. Alshimary, Berea College, SSRP 2019
now PhD student, UC Berkeley
Hodan Farah, Stanford University, NeURO research fellowship, 2020

High School Students

Poojan Shukla, Evergreen Valley High School, San Jose, CA (Bioengineering, UC Berkeley, expected 2021)
Evan Lewis, Carlmont High School, Belmont, CA (Electrical Engineering, UC Berkeley, 2019)
Diba Massihpour, Lawrenceville School, Lawrenceville, NJ (Economics, 2019, Stanford University)
Hansmeet Singh, Gunn High School, Palo Alto, CA (Computer Science, 2018, UC Berkeley)
Divya Gopisetty, Oakwood High School, Morgan Hill, CA (Human Biology, 2018, Stanford University)
Jared Rulison (Electrical Engineering and Computer Science, 2017, UC Berkeley)
Jasmine Vahidsafa (Microbiology, 2016, UC Davis)
Amelia Wong (Biology and Neuroscience, 2014, UC San Diego)
Atticus L. Mulholland (Civil Engineering, 2013, Northeastern University)

Invited Lectures

Keynote and Named lectures

2005 A. J. Carlson Memorial Lecturer, The University of Chicago, Chicago, IL
2007 Keynote Lecturer, West Coast Salt and Water Club, Morro Bay, CA
2008 Keynote Lecturer, Washington University at St. Louis, Neuroscience Retreat, St. Louis, MO
2009 Keynote Lecturer, Conference on Microtechnologies in Medicine and Biology (MMB 2009),
Quebec City, Quebec, Canada
2010 Keynote Lecture, Physiological Society Cross-themed Meeting on "Mechanosensitivity: from
transduction to sensation", Durham, UK
2012 Helen Cserr Memorial Lecturer, Mount Desert Island Marine Biological Laboratory
2015 Blaffer "Distinguished Scientists" Lectureship, University of Texas MD Anderson Cancer Center
2016 Distinguished Lecturer, Department of Neuroscience, Brown University, Providence, RI
2019 George H. Miller Distinguished Lecture, University of Illinois at Chicago, Chicago, IL
2020 Colloquium Guest, Kavli Institute, TU Delft (cancelled due to the coronavirus pandemic)

Other invited lectures

- 1997 International Worm Meeting, Madison, WI
- 2000 Michigan State University, Dept. Anatomy & Cell Biology, E. Lansing, MI
- 2000 Grass Foundation Lab, Marine Biological Laboratories, Woods Hole, MA
- 2000 Stanford University, Dept. of Molecular and Cellular Physiology, Stanford, CA
- 2000 University of California, Dept. of Biochemistry, San Francisco
- 2001 Gordon Research Conference on Gravity Sensing in Living Systems, Connecticut College, New London, CT.
- 2002 Neuroscience Program, UCSF, San Francisco, CA
- 2002 Stanford University, Dept of Biological Sciences, Stanford, CA
- 2002 IVth World Congress on Biomechanics, Calgary, Alberta, Canada
- 2002 The University of Chicago, Committee on Cell Physiology, Chicago, IL
- 2002 The University of Iowa, Dept of Physiology & Biophysics, Iowa City, IA
- 2004 Gordon Research Conference on Ion Channels, Tilton School, Tilton, NH
- 2005 Gordon Research Conference on Mechanotransduction and Gravity Signaling in Biological Systems, University of New England, Biddeford, ME.
- 2005 Baylor College of Medicine, Dept of Physiology & Biophysics, Houston, TX
- 2005 Vanderbilt University, Membrane Biology Group, Nashville, TN
- 2005 University of Medicine & Dentistry of New Jersey (UMDNJ), Robert Wood Johnson Medical School, Dept of Physiology & Biophysics, Piscataway, NJ.
- 2006 University of California, Department of Molecular and Cell Biology, Neurobiology Division, Berkeley, Berkeley, CA
- 2006 Harvard School of Medicine, Department of Neurobiology, Boston, MA
- 2007 U of Texas at Austin, The Neuroscience Division, Austin, TX
- 2007 U of Texas Health Sciences University, Dept of Physiology, San Antonio, TX
- 2007 Stanford University, Neuroscience Institute of Stanford, Fundamental Themes in Neuroscience, Stanford, CA
- 2007 Neural Circuits and Behavior in *C. elegans*, Janelia Farm Research Center Meeting, Ashburn, VA
- 2007 Gordon Research Conference on Mechanosensory Transduction, Discussion Leader, University of New England, Biddeford, ME.
- 2008 Development and Function of Somatosensation and Pain, Max Delbrück Center for Molecular Medicine, Berlin, Germany
- 2008 Janelia Farm Research Center, *in vivo* Electrophysiology and Neural Circuits in Model Organisms, Ashburn, VA
- 2008 Janelia Farm Research Center Meeting, Force-gated Ion Channels, Ashburn, VA
- 2008 University of Pennsylvania, Dept of Neuroscience, Philadelphia, PA
- 2008 St. Louis University School of Medicine, Dept of Pharmacological and Physiological Science, St. Louis, MO
- 2009 Symposium on Sensory Biomechanics, 2008 Society of Comparative and Integrative Biology Meeting, Boston, MA
- 2009 Keystone Symposium, Mechanotransduction in Physiology and Disease, Taos, NM
- 2009 Kansas University, Department of Molecular Biosciences, Lawrence, KS
- 2009 Yale University, Department of Cellular and Molecular Physiology, New Haven, CT
- 2009 Janelia Farm Research Center, Neural Circuits and Behavior in *C. elegans*, Ashburn, VA
- 2009 Brandeis University, Department of Biology, Waltham, MA
- 2009 Stanford Institute of Neuro-Innovation and Translational Neuroscience, Parajo Dunes, CA
- 2009 Stony Brook, Department of Neurobiology and Behavior
- 2009 McGill University, Montreal Neurological Institute, Montreal, Quebec, Canada
- 2010 101st International Titisee Conference, "Mechanics of Cells and Tissues: Sensing, Generating and Coordinating Forces in Biological Systems."
- 2010 Max Delbrück Center and Charité Research Medical School, Berlin, Germany
- 2010 Gordon Research Conference, "Ion Channels", Tilton, NH
- 2010 102nd Titisee Meeting, "Sensory transduction: The Gateway to Perception: Mechanisms and Pathology", Titisee, Germany
- 2010 Center of Advanced European Studies and Research (CAESAR), Bonn, Germany

- 2011 Neuroscience Seminar Series, National Institutes of Health, Bethesda, MD
 2011 Dorris Neuroscience Center, Scripps Research Institute, San Diego, CA
 2011 AChems Meeting, Symposium
 2011 Neuroscience Seminar Series, UCLA, Los Angeles, CA
 2011 Neuroscience Institute, NYU, New York City, NY
 2012 Dept of Neurobiology, Harvard, Boston, MA
 2012 Neuroscience Seminar Series, Duke University
 2012 Dept of Biochemistry and Molecular Biology, The University of Chicago
 2012 Integrative Membrane Physiology in the Post-Genome Era, Marine Biological Laboratory
 2012 Forces in Biology, *Exciting Biology* series, Sponsors: Cell Press, DMM Foundation, IPSEN, Dublin, Ireland
 2013 Neuroscience, University of Massachusetts, Worcester, MA
 2013 Neuroscience, Brown University, Providence, RI
 2013 Janelia Farm Research Center, Sensory Signaling in Model Organisms, Ashburn, VA
 2013 Biophysical Society Thematic Meeting, Mechanobiology of Cells and Proteins, Mount Desert Island, ME
 2013 Center for Theoretical Biophysics, UCSD, San Diego, CA
 2014 Eukaryotic Mechanotransduction Symposium, Biophysical Society Meeting, San Francisco, CA
 2014 68th Annual Meeting of the Society of General Physiologists, Woods Hole, MA
 2014 Neuroscience Seminar, University of Pennsylvania, Philadelphia, PA
 2014 Mechanobiology: Pushing and Pulling on Life, BioX Symposium, Stanford University
 2014 ESF-EMBO Conference: Flies, Worms and Robots: Combining Perspectives on Minibrains and Behaviour, Saint Feliu, Spain
 2015 NIH SBIG Group, Bethesda, MD
 2015 Carnegie Institution of Plant Biology, Palo Alto, CA
 2015 Janelia Farm Research Conference: Force-gated Ion Channels, Ashburn, VA
 2015 Department of Physiology, University of Texas at Southwestern
 2015 Keynote lecture, Bay Area Worm Meeting, San Jose State University
 2016 Neuroscience Program, University of Chicago, Chicago, IL
 2017 Neuroscience Seminar, University of California at San Francisco
 2017 Neuroscience Seminar, San Jose State University
 2017 FASEB SRC: Ion Channel Regulation, Colorado
 2017 EMBO/EMBL Conference: Mechanical Forces in Biology
 2018 Royal Society Discussions: Connectome to behavior: modelling *C. elegans* at single cell resolution
 2018 Keynote lecture, *C. elegans* Neurobiology and Development Meeting
 2019 NeuroFrance, Mechanics of the nervous system

G. Publications

Peer-reviewed research articles (chronological order)¹

1. Lewis DL, **Goodman MB**, St John PA & Barker JL (1988) Calcium currents and fura-2 signals in Facs-sorted lactotrophs and somatotrophs of rat anterior pituitary. *Endocrinol* **123**: 611-621.
2. Jones SVP, Barker JL, **Goodman MB** & Brann MR (1990) Inositol trisphosphate mediates cloned muscarinic receptor-activated conductances in transfected mouse fibroblast A9L cells. *J Physiol* **421**: 499-519.
3. Horn VJ, Sheehy PA, **Goodman MB**, & Ambudkar IS (1991) Activation of the inositol trisphosphate second messenger system by cAMP in a mouse fibroblast cell line. *Molec Cell Biochem* **101**:43-49.
4. **Goodman MB** & Art JJ (1996) Variations in the ensemble of potassium currents underlying resonance in turtle hair cells. *J Physiol* **497.2**: 395-412.
5. **Goodman MB** & Art JJ (1996) Positive feedback by a potassium-selective inward rectifier enhances tuning in vertebrate hair cells. *Biophys J* **71**: 430-442.
6. **Goodman MB**, Hall DH, Avery L & Lockery SR (1998) Active currents regulate dynamic range in *C. elegans* neurons. *Neuron* **20**: 763-772.

¹ *Equal Contributors, †Corresponding Author

7. **Goodman MB**, Lockery SR (2000) Pressure polishing: a method for re-shaping patch-pipettes during fire-polishing. *J Neurosci Meth* **100**: 13-15.
8. **Goodman MB***, Ernstrom GG*, Chelur D, Yao CA, O'Hagan R, Chalfie, M. (2002) MEC-2 regulates *C. elegans* DEG/ENaC channels needed for mechanosensation. *Nature* **415**: 1039-1042.
9. Chelur D, Ernstrom GG, **Goodman MB**, Yao CA, Chen L, O'Hagan R, Chalfie M. (2002) The mechanosensory protein MEC-6 is a subunit of the *C. elegans* touch-cell degenerin channel. *Nature* **420**: 669-673.
10. O'Hagan R, Chalfie M, **Goodman MB†** (2005). The MEC-4 DEG/ENaC channel of *C. elegans* touch receptor neurons transduces mechanical energy. *Nat Neurosci* **8**: 43-50.
11. Brown AL, Fernandez-Illescas SM, Liao Z, **Goodman MB†** (2007). Gain-of-function mutations in the MEC-4 DEG/ENaC channel alter gating and drug blockade. *J Gen Physiol* **121**:161-173.
12. Park SJ, **Goodman MB†**, Pruitt BL† (2007) Analysis of nematode mechanics by MEMS-based displacement clamp. *Proc Natl Acad Sci USA* **104**: 17376-17381.
13. Chalasani S, Chronis N, Tsunozaki M, Gray JM, Ramot D, **Goodman MB**, Bargmann CI (2007) Dissecting a neural circuit for food-seeking behavior in *Caenorhabditis elegans*. *Nature* **450**: 63-70.
14. Cueva JG, Mulholland A, **Goodman MB†** (2007) The nanoscale organization of the MEC-4 DEG/ENaC sensory transduction channel of *C. elegans* touch receptor neurons. *J Neurosci* **27**: 14089-14098. [A "This Week in the Journal" feature.]
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