CURRICULUM VITAE

ANDREW W. SINGSON

CONTACT INFORMATION

The Waksman Institute
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EDUCATION

1989-1995	Ph.D. Biology University of California, San Diego, Laboratory of Dr. James Posakony
1984-1989	Bachelor of Science. Genetics University of California, Davis College of Agriculture and Environmental Sciences

PROFESSIONAL EXPERIENCE

2012-present	Professor Waksman Institute and the Department of Genetics Rutgers The State University of New Jersey
2006-2012	Associate Professor Waksman Institute and the Department of Genetics Rutgers The State University of New Jersey
2000-2006	Assistant Professor Waksman Institute and the Department of Genetics Rutgers The State University of New Jersey
1995-1999	Postdoctoral Fellow Emory University, Department of Genetics Laboratory of Dr. Steven L'Hernault
1987-1989	Undergraduate Research / Laboratory Technician University of California, Davis Laboratory of Dr. James Boyd

GRANT SUPPORT

2013-2018	National Institutes of Health. Gamete Interactions in *Caenorhabditis elegans.* Review Group: Cellular and Molecular Integrated Reproduction (CMIR) R01HD054681. Impact score 10. Percentile score 2.
2002-present	College Undergraduate Honors Program Faculty Mentor.
2008-2013	National Institutes of Health. Gamete Interactions in *Caenorhabditis elegans.* Review Group: Cellular and Molecular Integrated Reproduction (CMIR)
2010-2011	National Institutes of Health. American Recovery and Reinvestment Act Research Supplement
2010	National Institutes of Health. American Recovery and Reinvestment Act

	Summer Undergraduate Research Supplement.
2009	National Institutes of Health. American Recovery and Reinvestment Act Summer Undergraduate Research Supplement.
2007-2008	National Institutes of Health. Gamete Interactions in *Caenorhabditis elegans.* R56 Directors Bridge Award R56HD54681.
2001-2007	National Institutes of Health. Gamete Interactions in *Caenorhabditis elegans*. Review Group: Cell Development and Function 4
2004-2006	Johnson & Johnson Discovery Award 80% Charles & Johanna Busch Biomedical Funds 20% Phenotypic and molecular analysis of *egg* genes in *Caenorhabditis elegans*.
2002-2004	Johnson & Johnson Discovery Award. Identification of egg components required for Fertilization in *Caenorhabditis elegans*.
2002-2003	New Jersey SROA-7. High Speed Automated Analysis of the Nematode *C. elegans*. Project chair and author.
2000-2002	Charles & Johanna Busch Biomedical Grant. Genetic and Molecular Analysis of Genes Required for Fertilization in *C. elegans*.
2001	Reinvest in Rutgers Equipment Grant. Co-PI with Dr. Vershon and Dr. Sofer. Fluorescence Microscopy and Video Analysis of *C. elegans*. 12/01.
2000-2001	National Science Foundation Minority Postdoctoral Starter Grant. Sperm-Egg Interactions in *Caenorhabditis elegans*. IBM 0000182.

HONORS, AWARDS AND FELLOWSHIPS

2004-2006	Johnson & Johnson Discovery Award
2002-2004	Johnson & Johnson Discovery Award
1998	National Science Foundation Minority Postdoctoral Fellowship Third Year Competitive Renewal
1996-1998	National Science Foundation Minority Postdoctoral Fellowship
1996	National Institutes of Health Postdoctoral Fellowship (declined for NSF)
1996	Ford Foundation Postdoctoral Fellowship (declined for NSF)
1993	UC San Diego Excellence in Teaching Award
1993-1994	San Diego Opportunity Predoctoral Fellowship
1991	California Foundation for Biochemical Research Fellowship
1990-1993	National Science Foundation Predoctoral Fellowship
1989-1990	San Diego Opportunity Predoctoral Fellowship
1990	Ford Foundation Predoctoral Fellowship (declined for NSF)
1989	UC Davis Genetics Department Citation For Outstanding Undergraduate Research
1989	L & M Davis Scholarship
1988	UC President Undergraduate Research Fellowship

PUBLICATIONS

1 I. Chatterjee, C. Ibanez-Ventoso, P. Vijay, G. Singaravelu, C. Baldi, J. Bair, S. Ng, A. Smolyanskaya, M. Driscoll, and A. Singson (2013). Dramatic fertility decline in aging *C.*

elegans males is associated with mating execution deficits rather than diminished sperm quality. *Experimental Gerontology 48: 1156-1166*.

2 M. Marcello, G. Singaravelu and A. Singson. (2013) Fertilization. *Germ Cell Development in C. elegans.* T. Schedl (Ed.). *Advances in Experimental Medicine and Biology. 757: 321-350.*

3 G. Singaravelu and A. Singson. (2013) Calcium signaling surrounding fertilization in the nematode *Caenorhabditis elegans. Cell Calcium 53: 2-9.*

4 G. Singaravelu, I Chatterjee, S. Rahimi, M. Druzhinina, L. Kang, X. Z. S. Xu and A. Singson. (2012) The sperm surface localization of the TRP-3/SPE-41 Ca2+ permeable channel depends on SPE-38 function in *Caenorhabditis elegans*. *Developmental Biology 365: 376-383*.

5 B. Geldziler, M. Marcello, D. Shakes and A. Singson* (2011). The genetics and cell biology fertilization. *Caenorhabditis elegans:* Modern Biological Analysis of an Organism. Molecular Genetics and Development. *J. Rothman and A. Singson editors. *Methods in Cell Biology*. *106: 343-375.*

6 G. Singaravelu and A. Singson (2011). New insights into the mechanism of fertilization in nematodes. *International Review of Cell and Molecular Biology.* Kwang Jeon (Ed.) *289: 211-238.*

7 J. M. Parry and A. Singson (2011). EGG proteins and cell cycle progression during the oocyte-to-embryo transition in *C. elegans*. *Cell Cycle in Development.* Jacek Kubiak (Ed.). Series: *Results and Problems in Cell Differentiation. 53: 135-151.*

8 M. Marcello and A. Singson (2011). Germline determination: don't mind the P granules. *Current Biology. 21: R155-157.*

9 G. Singaravelu, I. Chatterjee, M. R. Marcello and A. Singson (2011). Isolation and *in vitro* activation of *Caenorhabditis elegans* sperm. *Journal of Visualized Experiments* 47. Pii: 2336 doi: 10.3791/2336.

10 M. R. Marcello and A. Singson (2010). Fertilization and the oocyte-to-embryo transition in *C. elegans*. *Biochemistry and Molecular Biology Reports. 43: 389-399*.

11 J. M. Parry, A. J. Lefkovith, J. S. Hang, J. Ohm, R. Klancer, M. H. Zegarek, R. Maruyama, N. V. Velarde, F. Piano, B. D. Grant and A. Singson (2009). EGG-4 and EGG-5 link events of the oocyte-to-embryo transition with meiotic progression in *C. elegans. Current Biology. 19: 1752-1757*.

This manuscript and Cheng et al. (2009) are featured in a Dispatch: C. S. Heighington and E. T. Kipreos (2009) Embryogenesis: Degenerate phosphatases control the oocyte-to-embryo transition. *Current Biology. 19: R939-R942.*

12 K. Chih-Chien Cheng, R. Klancer, A. Singson and G. Seydoux. (2009) Regulation of MBK-2/DYRK by CDK-1 and the pseudophosphatases EGG-4 and EGG-5 during the oocyte-to embryo transition. *Cell*. *139: 560-572.*

This manuscript and Parry et al. (2009) are featured in a Leading Edge Preview: N. K. Tonks (2009) Pseudophosphatases: Grab and hold on. *Cell. 139: 464-465.*

13 P. Kadandale and A. Singson. (2009) The life of EGG-2. Visions: the art of science. *Molecular Reproduction and Development*. *76: 429*.

14 P. Kadandale, I. Chatterjee and A. Singson. (2009) Germline transformation of *Caenorhabditis elegans* by injection. Microinjection Methods and Applications. David Carroll (Ed.). Series: *Methods in Molecular Biology*, *518: 123-133*.

15 A. Singson, J. S. Hang, J. M. Parry. (2008) Genes required for the common miracle of fertilization in *Caenorhabditis elegans*. *International Journal of Developmental Biology. 52: 647-656*.

16 J. S. Hang B.D. Grant and A. Singson. (2008) Meiotic Maturation: Receptor Trafficking Is the Key. *Current Biology. 18: R416-R418.*

17 R. Maruyama, N. V. Velarde, R. Klancer, S. Gordon, P. Kadandale, J. M. Parry, J. S. Hang, J. Rubin, A. Stewart-Michaelis, P. Schweinsberg, B. D. Grant, F. Piano, A. Sugimoto and A. Singson. (2007) EGG-3 regulates cell-surface and cortex rearrangements during egg activation in *Caenorhabditis elegans*. *Current Biology. 17: 1555-1560.*

This manuscript was featured in a Dispatch: J. A. Govindan and D. Greenstein (2007) Embryogenesis: Anchors away! *Current Biology. 17: R890-R892.*

18 B. Geldziler, I. Chatterjee, P. Kadandale, E. Putiri, R. Patel and A. Singson. (2006) A comparative study of sperm morphology, cytology and activation in *Caenorhabditis elegans, Caenrohabditis remanei* and *Caenorhabditis briggsae*. *Development, Genes and Evolution. 216: 198-208*.

19 R. Maruyama and A. Singson. (2006) Taking care of Dad's DNA. *Genome Biology 7: 244.1-244.3*.

20 I. Chatterjee P. Kadandale and A. Singson. (2006) Meiotic diapause: how a sperm signal sets you free. *Current Biology. 16: R496-R499.*

21 A. Singson. Sperm activation: time and tide wait for no sperm. (2006) *Current Biology 16: R160-R162*.

22 E. J. Gleason, W. C. Lindsey, T. L. Kroft, A. W. Singson and S. W. L'Hernault. (2006) *spe-10* Encodes a DHHC-CRD zinc finger membrane protein required for ER/golgi membrane morphogenesis during *Caenorhabditis elegans* spermatogenesis. *Genetics. 172: 145-158*.

23 P. Kadandale, A. Stewart-Michaelis, S. Gordon, J. Rubin, R. Klancer, P. Schweinsberg, B. D. Grant and A. Singson. (2005) The egg surface LDL-receptor-repeat containing proteins EGG-1 and EGG-2 are required for fertilization in *Caenorhabditis elegans*. *Current Biology. 15: 2222-2229*.

24 B. Geldziler, I. Chatterjee and A. Singson. (2005) The genetic and molecular analysis of *spe-19*, a gene required for sperm activation in *Caenorhabditis elegans*. *Developmental Biology. 283: 424-436*.

25 I. Chatterjee, A. Richmond, E. Putiri, D. Shakes and A. Singson. (2005) The *Caenorhabditis elegans spe-38* gene encodes a novel four-pass integral membrane protein required for sperm function at fertilization. *Development. 132: 2795-2808.*

26 P. Kadandale, B. Geldziler, M, Hoffmann and A. Singson. (2005) Use of SNPs to determine the breakpoints of complex deficiencies, facilitating gene mapping in *Caenorhabditis elegans*. *BMC Genetics. 6: 28*.

27 E. Putiri, S. Zannoni, P. Kadandale, and A. Singson. (2004) Functional domains and temperature-sensitive mutations in SPE-9, an EGF repeat-containing protein required for fertility in *Caenorhabditis elegans. Developmental Biology. 272: 448-459*.

28 P. Kadandale and A. Singson. (2004) Oocyte production and sperm utilization patterns in semi-fertile strains of *Caenorhabditis elegans*. *BMC Developmental Biology, 4: 3*.

29 B. Geldziler, P. Kadandale and A. Singson. (2004) Molecular genetic approaches to studying fertilization in model systems. *Reproduction. 127: 409-416*.

30 S. Zannoni, S. W. L'Hernault and A. W. Singson. (2003) Dynamic localization of SPE-9 in sperm: a protein required for sperm-oocyte interactions in *Caenorhabditis elegans*. *BMC Developmental Biology. 3: 10.*

31 J. Bandyopadhyay, J. Lee, J. Lee, J. I. Lee, J. R. Yu, C. Jee, J. H. Cho, S. Jung, M. H. Lee, S. Zannoni, A. Singson, H. S. Koo and J. Ahnn. (2002) Calcineurin, a component of G-protein coupled phosphorylation pathways, is involved in movement, fertility, egg laying and growth in *C. elegans*. *Molecular Biology of the Cell. 13: 3281-3293*.

32 B. Park, D. Lee, S. Jung, J. Yu, K. Choi, J. Y. Kwon, J. Lee, J. Lee, A. Singson, W. K.

Song, C. S. Park, D. H. Kim, J. Bandyopadhyay and J. Ahnn. (2001) Calreticulin, a calcium-binding molecular chaperone is required for stress response and sperm fertility in *C. elegans*. *Molecular Biology of the Cell. 12: 2835-2845.*

33 R. E. Navarro, E. Y. Shim, Y. Kohara, A. Singson and T.K. Blackwell. (2001) *cgh-1*, a conserved predicted RNA helicase required for gametogenesis and inhibition of germline apoptosis in *C. elegans*. *Development. 128: 3221-3232*.

34 A. Singson, S. Zannoni and P. Kadandale. (2001) Molecules that function in the steps of fertilization. *Cytokine & Growth Factor Reviews*. *12: 299-304.*

35 A. Singson. (2001) Every sperm is sacred: fertilization in *Caenorhabditis elegans*. *Developmental Biology. 230: 101-109.*

36 S. W. L'Hernault and A. Singson. (2000) Developmental genetics of spermatogenesis in the nematode *Caenorhabditis elegans*. In: "The Testes: From Stem Cell to Sperm Function", Serono Symposium USA, *109-119*.

37 A. Singson, K. L. Hill and S. W. L'Hernault. (1999) Sperm competition in the absence of fertilization in *Caenorhabditis elegans*. *Genetics. 152: 201-208*.

38 A. Singson, K. B. Mercer and S. W. L'Hernault. (1998) The *C. elegans spe-9* gene encodes a sperm transmembrane protein that contains EGF-like repeats and is required for fertilization. *Cell. 93: 71-79.*

39 A. Singson, M. Leviten, A. Bang, H. Hua and J. Posakony. (1994) Direct downstream targets of proneural activators in the imaginal disc include genes involved in lateral inhibitory signaling. *Genes & Development. 8: 2058-2071.*

40 W. Flegel, A. Singson, J. Margolis, A. Bang, J. Posakony and C. Murre. (1993) *Dpbx*, a new homeobox gene closely related to the human proto-oncogene *pbx1*, molecular structure and developmental expression. *Mechanisms of Development. 41: 155-161.*

41 M. Van Doren, P. Powell, D. Pasternak, A. Singson and J. Posakony. (1992) Spatial regulation of proneural gene activity: auto- and cross-activation of *achaete* is antagonized by *extramacrochaetae*. *Genes & Development. 6: 2592-2605.*

42 K. Sakaguchi, P. Harris, R. van Kuyk, A. Singson and J. Boyd. (1990) A mitochondrial nuclease is modified in *Drosophila* mutants (*mus 308*) that are hypersensitive to DNA crosslinking agents. *Molecular General Genetics. 224: 333-340.*

PUBLICATIONS IN PREPARATION / SUBMITTED

1 G. Singaravelu, M. Marcello, M. Druzhinina and A. Singson. The *C. elegans* sperm protein interactome. (In Preparation).

2 M. Marcello, G. Singaravelu, M. Druzhinina and A. Singson. The network biology of *C. elegans* sperm. (In Preparation).

3 M. Marcello, J. M. Parry, C. Baldi, A. Rizvi, A. Audhya, P. Schweinsberg, B. D. Grant, M. Sundaram and A. Singson. The *C. elegans egg-6* gene is required for proper eggshell formation and embryonic development. (In Preparation).

Book Editor:

1 WormBook Section Editor. Developmental Control. WormBook, doi/10.1895/wormbook.1.7.1, http://www.wormbook.org. Starting in 2011.

2 J. H. Rothman and A. Singson editors (2012) *Methods in Cell Biology* Volume 107. *Caenorhabditis elegans:* Modern Biological Analysis of an Organism. Cell Biology and Physiology.

3 J. H. Rothman and A. Singson editors (2011) *Methods in Cell Biology* Volume 106. *Caenorhabditis elegans:* Modern Biological Analysis of an Organism. Molecular Genetics

and Development.

INVITED LECTURES

2013 Laboratoire Argo, Banyuls-sur-Mer, France, EMBO Workshop on Oocyte Maturation and Fertilization: Lessons from Canonical and Emerging Models
2013 Rowen University Medical School/UMDNJ-School of Medicine Stratford
2012 Syracuse University
2011 Skriball Institute of Biomolecular Medicine/NYU Langone Medical Center
2010 University of Pennsylvania
2010 International Symposium, Intercellular Recognition and Allogeneic Authentication: Perspectives of Reproductive Mechanisms Shared by Animals and Plants. Nagoya, Japan
2010 RIKEN Center for Developmental Biology, Kobe, Japan
2010 Robert Wood Johnson Medical School Postdoctoral Association Career Development Panelist/Speaker for the Postdoctoral Association (PDA) of Rutgers/UMDNJ
2009 Utrecht University, Netherlands
2009 Gordon Conference on Cell-Cell Fusion
2009 International *C. elegans* Conference-whole genome sequencing workshop
2009 International *C. elegans* Conference-Germline Session
2009 University of Alabama Birmingham
2009 Molecular Reproduction and Development Conference
2009 RWJMS/Rutgers/Princeton MD PhD program
2009 Rutgers University Darwin Bicentennial
2008 University of California Davis
2007 New York University
2007 CUNY Brooklyn College
2007 Emory University
2006 Brown University
2006 National Institutes of Health NIDDK
2006 University of the Pacific
2005 Mount Sinai School of Medicine
2005 Princeton University
2004 University of Pennsylvania Medical Center
2004 Cancer Institute of New Jersey, Molecular Mechanisms of Tumor Growth Section Meeting
2004 Iowa State University
2004 Queens College, City University of New York
2003 Sloan-Kettering Institute
2003 Gordon Conference on Fertilization & Activation of Development
2003 Platform Session Chair/Speaker Northeast Regional Society for Developmental Biology
2003 Cancer Institute of New Jersey, Molecular Mechanisms of Tumor Growth Section Meeting
2002 National Institutes of Health LCDB/NIDDK
2002 College of William and Mary

2002 Cold Spring Harbor Germ Cell Meeting
2002 West Coast *C. elegans* Meeting
2002 Vanderbilt University
2002 Cancer Institute of New Jersey, Molecular Mechanisms of Tumor Growth Section Meeting
2001 Johns Hopkins University Bloomberg School of Public Health
2001 University of California Santa Barbara
2000 University of Pennsylvania Medical Center
2000 CUNY Hunter College
2000 California State University San Diego
2000 East Coast *C. elegans* Meeting, Platform Session Chair/Speaker
2000 Temple University School of Medicine
2000 University of Massachusetts Medical School
2000 Northeast Regional Society for Developmental Biology Meeting
1999 Gordon Conference on Fertilization & Activation of Development
1999 The University of Texas Southwestern Medical Center
1999 The University of Maryland, College Park
1999 Tufts University
1999 The University of Connecticut
1999 Texas A&M University
1999 Mount Sinai School of Medicine
1999 The Waksman Institute/Rutgers University
1999 The Ohio State University
1999 Rice University
1999 Santa Clara University
1999 Medical College of Wisconsin
1999 The University of Connecticut Health Center
1999 The University of Tulsa
1999 Emory University Medical School
1998 American Society for Cell Biology Meeting
1998 East Coast *C. elegans* Meeting
1998 The University of California Berkeley
1998 The University of California San Diego

RESEARCH TRAINING

Postdoctoral Researchers In The Singson Lab:

2013-present	Dr. Amber Krauchunas, Ph.D.
2008-present	Dr. Guna Singaravelu, Ph.D.
2010-2013	Dr. Matthew Marcello, Ph.D., Assistant Professor, Pace University
2011-2013	Dr. Christopher Baldi, Ph.D.
2008-2011	Dr. Indrani Chatterjee, Ph.D. Postdoc New York University.
2010-2011	Dr. Mari Akasaka, Ph.D., Assistant Professor Nagoya University.
2005-2007	Dr. Rika Maruyama, Ph.D., Postdoc Johns Hopkins University

2002-2005	Dr. Martin Nemeroff, Ph.D., Part time postdoctoral fellow. Instructor and Course Coordinator, Rutgers Univeristy Department of Molecular Biology and Biochemistry.
2000-2002	Dr. Sonia Zannoni, Ph.D., IPS Pharma Inc.

Graduate Students In The Singson Lab:

2011-2013	Ernesto Mendez, M.S.
2006-2010	Jean Parry, Ph.D. Postdoc Sundaram Lab, University of Pennsylvania.
2001-2007	Indrani Chatterjee, Ph.D. Postdoc Piano Lab, New York University.
2000-2006	Pavan Kadandale, Ph.D. Postdoc Kiger Lab, University of California San Diego, Assistant Professor University of California, Irvine.
2000-2005	Brian Geldziler, Ph.D., Principal Medical Writer, Eli Lilly & Co.
2008-2009	Lindsay Kelley, M.S. Graduate Student Mount Sinai School of Medicine
2005-2009	Julie Hang, M.S. Roche(Pharma).

Undergraduate Students In The Singson Lab:

2012 – present	Matthew Rexroad Rutgers College Honors Program Student Rutgers Life Sciences SURF Fellow 2013
2012 - present	Sunny Dharia Rutgers Life Sciences SURF Fellow 2013
2012 – present	Lokesh Lahoti Aresty Undergraduate Research Fellow 2012 Rutgers Life Sciences SURF Fellow 2013
2011- present	Tori Gartmond Work Study Student / Genetics Department Independent Research
2011	Jimmy Patel Rutgers College Honors Program Student Waksman Institute Summer Fellow 2011
2010-present	Anam Rizvi Rutgers College Honors Program Student Waksman Institute Summer Fellow 2011 Waksman Institute Summer Fellow 2012 Aresty Undergraduate Research Fellow 2010, 2013
2009-2012	Priyanka Vijay Graduation with Highest Honors MacMillan Award Winner 2012 Henry Rutgers Nominee 2012 Rutgers College Honors Program Student Azarra Family Endowed Scholarship winner 2011 Rutgers Life Sciences SURF Fellow 2009, 2010, 2011 Aresty Undergraduate Research Fellow 2009 Phi Beta Kappa (SAS)
2009-2012	Sina Rahimi Rutgers Life Sciences SURF Fellow 2009 NIH ARRA funded undergraduate research 2010
2008-2010	Ariel Lefkovith

	Rutgers College Honors Program Student Waksman Institute Summer Fellow 2009 Rutgers Life Sciences SURF Fellow 2008
2007-2010	Jonathan Ohm Rutgers College Honors Program Student Rutgers Life Sciences SURF Fellow 2007 Waksman Institute Summer Fellow 2008
2007-2008	Susan Ng
2005-2007	Stephanie Chan Rutgers College Honors Program Student Waksman Institute Summer Fellow 2005, 2006
2005-2008	Jin-Hwei Julianna Bair Henry Rutgers Fellow 2007 - 2008 Rutgers Life Sciences SURF Fellow 2007 Rutgers College Honors Program Student Waksman Institute Summer Fellow 2006
2004-2007	Betty Kong Henry Rutgers Fellow 2006 - 2007 Goldwater Scholar 2006 Rutgers Life Sciences SURF Fellow 2006 Rutgers College Honors Program Student Waksman Institute Summer Fellow 2004 Cold Spring Harbor Summer Undergraduate Research Program 2005 Rutgers Honors Program Research Support Award 2005 Graduation with 4.0 GPA and Highest Honors
2002-2005	Allison Stewart Rutgers College Honors Program Student Waksman Institute Summer Fellow 2003 Rutgers Life Sciences SURF Fellow 2004 Henry Rutgers Fellow 2004 – 2005 Department of Genetics Award for Distinguished Academic Achievement Graduation with 4.0 GPA and Highest Honors Graduate student Princeton University Starting Fall 2005
2004-2005	Richard Klancer Rutgers Undergraduate/Lab Technician
2004	Kerri Ryan Douglass Honors Student
2002-2004	Melissa Hoffmann Rutgers Life Sciences SURF Fellow 2003
2001-2002	Heidi DeSilva
2001-2002	Luipa Ahmad Rutgers Life Sciences SURF Fellow 2001
2000-2001	Vasco DeJesus

Visiting Summer Students In The Singson Lab:

2012	Bridget Mendoza RiSE Program Student (Northern Arizona University)
2005	Chris Lakhiani (College of William and Mary)

2005, 2006	Dylan Kotliar (Princeton High School)
2004, 2005	Alexandra Smolyanskaya (Stony Brook University)
2002, 2003, 2004	Scott Gordon (Rutgers Preparatory High School, Haverford College) Goldwater Scholar
2002, 2003	Jacob Rubin (Rutgers Preparatory High School, Muhlenberg College)

Graduate Program Participation:

UMDNJ-Robert Wood Johnson/Rutgers/Princeton University medical scientist training program participating faculty member

Rutgers University/UMDNJ cell and developmental biology

Rutgers University/UMDNJ joint program in molecular biosciences

Rutgers University/UMDNJ microbiology and molecular genetics

TEACHING ACTIVITIES

Graduate Teaching:

2014 Spring	The Genetics and Cell Biology of Fertilization (16:695:629)
2010 Spring	Selected Topics in Cell & Developmental Biology (16:148:601)
2008 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)
2006 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)
2004 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)
2003 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)
2003 Spring	Selected Topics in Cell & Developmental Biology (16:148:601)
2002 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)
2002	FMC Corporation, Introduction to Modern Molecular Biology, A Short Course in Modern Biology for FMC Employees. Responsibilities: Molecular Genetics, Developmental Biology, and Cell Biology Lectures.
2002 Spring	Selected Topics in Cell & Developmental Biology (16:148:601)
2001 Fall	Selected Topics in Cell & Developmental Biology (16:148:601)

Undergraduate Teaching:

2013 Spring	Developmental Genetics (447:370)
2011 Fall	Genetic Analysis I (447:384)
2010 Fall	Genetic Analysis I (447:384)
2009 Fall	Honors Seminar in Genetics (01:447:405)
2008 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2007 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2006 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2005 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2004 Spring	Advanced Developmental Biology Guest Lecture (146:472, 148:504)

2004 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2000-2004	Summer Waksman Student Scholars Program and Waksman Institute Colloquium Series Lectures on Fertilization.
2003 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2002 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)
2001 Summer	Waksman Institute Colloquium Series in Molecular Biology. New Jersey High School Science Teacher Showcase Lecture
2001 Spring	Introduction to Molecular Biology and Biochemistry Research (447:315, 694:315)

PROFESSIONAL SERVICE

Grant Review Panels:

2009-2013	NIH CHHD-R, (RAG) Reproduction Andrology and Gynecology Study Section Standing Member
2006-2011	2006 - 2011. American Cancer Society Development, Differentiation and Cancer Study Section Ad Hoc 2006-2008, Member 2008-2011.

Ad Hoc Review:

3013	NIH CHHD-R, (RAG) Reproduction, Andrology, and Gynecology Subcommittee Cycle III
2013	Research Corporation for Science Advancement, Cottrell College Science Award
2013	NIH INSPIRE Postdoctoral Applicant Review for Rutgers/UMDNJ
2013	NIH (CMIR) Cellular, Molecular and Integrative Reproduction Study Section Cycle II
2012	Qatar National Research Fund (QNRF)
2010	NIH NIDDKD Board of Scientific Counselors.
2009	NIH CHHD-R Special Emphasis Panel/Scientific Review Group
2008	NIH CHHD-R, (RAG) Reproduction, Andrology and Gynecology Subcommittee Cycle
2008	NIH (CMIR) Cellular, Molecular and Integrative Reproduction Study Section Cycle II
2007	NIH CHHD-R, (RAG) Reproduction, Andrology, and Gynecology Subcommittee Cycle III
2007	NIH CHHD-R, (RAG) Reproduction, Andrology, and Gynecology Subcommittee Cycle II
2001-2007	National Science Foundation External Grant Review
2006	Jeffress Research Grant/Thomas F. and Kate Miller Jeffress Memorial Trust Grant Review
2005	2005 NIH (CMIR) Cellular, Molecular and Integrative Reproduction Study Section Cycle I
2003-2006	Waksman Institute Busch Fund and Fellowship Committee
2001-2002	Charles & Johanna Busch Biomedical Grant Review Panel

2000 External Grant Reviewer, PSC-CUNY research award program

Editorial Board:

2009-2013 *Zygote* Published by Cambridge University Press

Manuscript Peer Review For The Following Journals:

BMC Cell Biology
BMC Developmental Biology
BMC Genomics
Current Biology
Development
Developmental Biology
Developmental Dynamics
FEBS Journal
International Journal of Developmental Biology
Journal of Cell Biology
Journal of Cell Science
Journal of Cellular Physiology
Journal of Visualized Experiments (JoVE)
Mechanisms of Development
Molecular and Cellular Endocrinology
Molecular Reproduction and Development
Nature
Nature Cell Biology
Parasitology International
PLoS Genetics
Proceedings of the Royal Society: Biological Sciences
Science
Trends in Cell Biology

Professional Memberships:

Society for Developmental Biology
The American Society for Cell Biology
The Genetics Society of America
The American Association for the Advancement of Science
The Cancer Institute of New Jersey
Federation of American Societies for Experimental Biology

Meeting Organization/Session Chair:

2008 Waksman Institute Retreat Organizer
2003 Session Chair, Northeast Regional Society For Developmental Biology Meeting
2000 Session Chair, East Coast *C. elegans* Meeting

UNIVERSITY COMMITTEES AND OTHER UNIVERSITY SERVICE

2011-present	Coordinator Genetics Department Senior Graduation and Recognition Activities
2013	Waksman Institute Reappointment/Mentoring Committee Dr. Juan Dong
2013	Waksman Institute Reappointment/Mentoring Committee Dr. Andrea Gallavotti
2013	Genetics Department Reappointment/Mentoring Committee Dr. Michael Verzi
2001-present	Rutgers College Fellow-Rutgers College Honors Program Faculty Mentor
2005-2012	Department of Genetics Seminar Committee
2007-present	Waksman Institute Curriculum Committee
2010-2012	Genetics Department Reappointment/Mentoring Committee for Dr. Bryce Nickels
2011-present	Genetics Department Reappointment/Mentoring Committee for Dr. Karen Schindler
2011	Genetics Department Reappointment Committee for Dr. Changshun Shao
2011	NIH INSPIRE Postdoctoral Fellowship Selection Committee
2011	Bike Share Pilot Program - Waksman Institute Coordinator
2010-2012	Biological Sciences Area Committee for curricular review
2011	Genetics Department Faculty Search Committee
2010	Peer Evaluation Committee (PEC) Chair, Department of Genetics
2010-present	Rutgers Department of Genetics Workload Committee
2010	Waksman Institute Next Generation DNA Sequencing Research Professor Search Committee.
2010	Reappointment Reading Committee for Dr. Bryce Nickels
2009	Waksman Institute FESI Peer Evaluation Committee
2008-2010	Rutgers Advisory Committee for Appointments and Promotions of Non-tenured Faculty
2008	Faculty Enhanced Salary Increases (FESI) Peer Evaluation Committee Chair for the Department of Genetics
2003-2008	Rutgers University/UMDNJ joint program in molecular biosciences rotation advisory committee
2003-2006	Busch Fellowship Committee
2007, 2011	Rutgers Department of Genetics Workload Committee
2004-2008	Henry Rutgers Scholars Program Participating Faculty (For Allison Stewart, Betty Kong and Julianna Bair)
2007	Department of Genetics Evaluation, Reappointment/Mentoring Committee Dr. Mary Konsolaki
2006	Department of Genetics Evaluation, Reappointment/Mentoring Committee Dr. Lourdes Serrano
2006-2007	Department of Genetics Evaluation, Reappointment/Mentoring Committee Dr. Derek Gordon

COMMUNITY SERVICE

2001-present	Faculty Advisor, Rutgers Scarlet Knights Collegiate Cycling Team, Former United States Cycling Federation and Collegiate Cycling Licensed Official *The Rutgers University Cycling Team has been the ECCC Cyclocross Champions for six years in a row (2005-2011).*
2005-present	Nob Hill Community Association (Piscataway, NJ) Elected Board Member
1995-1999	The American Cancer Society CanSurmount Volunteer 1995 – 1999