

**Gary C. Schindelman, Ph.D.**

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**PROFESSIONAL APPOINTMENTS**

<b>OCCIDENTAL COLLEGE, LOS ANGELES, CA</b> Co-Chair Biochemistry Program (2016-present) Resident Professor of Biochemistry, Department of Biology (2022-Present) NTT Full Professor, Department of Biology (2021-2022) NTT Associate Professor, Department of Biology (2015-2021) NTT Assistant Professor, Department of Biology (2005-2015)	2005-present
<b>CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA</b> Biological Curator - WormBase. Database for <i>C. elegans</i> and related nematodes	2005-present
<b>CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA</b> Postdoctoral Scholar - Division of Biology, Howard Hughes Medical Institute <i>Supervisor: Dr. Paul Sternberg</i>	2000-2005
<b>NEW YORK UNIVERSITY, NEW YORK, NY</b> Research Assistant / Graduate Student - Biology Department <i>Supervisor: Dr. Philip Benfey</i>	1993-2000
<b>UNITED STATES PEACE CORPS VOLUNTEER</b> High School Teacher - Vaipouli College, Savaii, Western Samoa.	1990-1992

**EDUCATION**

<b>NEW YORK UNIVERSITY, NEW YORK, NY</b> Ph.D. Biology- Developmental Genetics Thesis: Regulation of cell expansion in <i>A. thaliana</i> : The molecular genetic characterization of COBRA	1993-2000
<b>STATE UNIVERSITY OF NEW YORK AT BINGHAMTON, VESTAL, NY</b> B.S. Biology	1986-1990

**TEACHING/SUPERVISORY EXPERIENCE**

<b>Adjunct Faculty – Occidental College, Los Angeles, CA</b> <u>Molecular Biology</u> , Lecturer and Lab Instructor. <u>Principles of Biochemistry</u> , Lecturer and Lab Instructor. <u>Biochemistry I</u> , Lecturer and Lab Instructor. <u>Senior Seminar Fall: Biochemistry</u> , Instructor. <u>Senior Seminar Spring: Biochemistry</u> , Instructor. <u>Genetic Analysis</u> , Lecturer and Lab Instructor. <u>Intro to Cell and Molecular Biochemistry</u> , Lecturer and Lab Instructor. <u>Senior Seminar: Biology, Molecular Genetics and Human Disease Models</u> , Instructor Independent Study – Neurodegenerative disease Independent Study – The Zika Virus Independent Study – Nanoparticle delivery systems for treating spinal cord injury	2005 – Present
<b>Teaching Workshop Presenter – Huntington Botanic Gardens, San Marino, CA</b> “The ABCs of Developmental Botany; Integrating Plants into the High School Classroom”.	8/2004 and 8/2005
<b>Research Mentor</b> - California Institute of Technology Supervised Jian Yuan Thum (undergraduate)	2001-2004

<b>Research Mentor - New York University</b> Supervised Sumena Thongrod and Tariq Ahmed (undergraduates)	1998-1999
<b>Teaching Assistant - New York University</b> Molecular and Cell Biology I & II 1994-96 Principles of Biology I & II 1993-94.	1993-1996
<b>High School Teacher - U.S. Peace Corps</b> Vaipouli College, Savaii, Western Samoa. Biology - Grade 12 General Science - Grades 9,10 and 11	1990-1992

### **FELLOWSHIPS, HONORS and AWARDS**

Kurata Award (outstanding faculty member in the Biology Department- Occidental College)	2024
Loftsgordon Memorial Award for Outstanding Teaching (Occidental College)	2015
NHGRI: Wormbase Grant WormBase is supported by a grant from the National Human Genome Research Institute at the US National Institutes of Health # U41 HG02223 (PI- Paul Sternberg)	2005-present
National Research Service Award (NRSA) - National Institutes of Health Postdoctoral Fellowship (National Institute of Neurological Disorders and Stroke)	2002-2005
Margaret and Herman Sokol Postdoctoral Research Fellowship	2001
New York University Graduate School of the Arts and Sciences Dean's Outstanding Dissertation Award in the Natural Sciences	2001
Gladys Mateyko Award for Excellence in Biology - New York University Biology Department	2000
New York University Graduate School of the Arts and Sciences Dean's Dissertation Fellowship	1999-2000
Margaret and Herman Sokol Predoctoral Summer Fellowship in the Sciences	1999
New York University Graduate Assistantship	1993-1998

### **PUBLICATIONS (24)**

Sternberg PW, Van Auken K, Wang Q, Wright A, Yook K, Zarowiecki M, Arnaboldi V, Becerra A, Brown S, Cain S, Chan J, Chen WJ, Cho J, Davis P, Diamantakis S, Dyer S, Grigoriadis D, Grove CA, Harris T, Howe K, Kishore R, Lee R, Longden I, Luypaert M, Müller HM, Nuin P, Quinton-Tulloch M, Raciti D, Schedl T, **Schindelman G**, Stein L.

WormBase 2024: status and transitioning to Alliance infrastructure.  
Genetics. 2024 May 7;227(1)

Alliance of Genome Resources Consortium\*.  
Updates to the Alliance of Genome Resources Central Infrastructure.  
Genetics. 2024 May 7;227(1)

**\* my authorship listed here**

Davis P, Zarowiecki M, Arnaboldi V, Becerra A, Cain S, Chan J, Chen WJ, Cho J, da Veiga Beltrame E, Diamantakis S, Gao S, Grigoriadis D, Grove CA, Harris TW, Kishore R, Le T, Lee RYN, Luypaert M, Müller HM, Nakamura C, Nuin P, Paulini M, Quinton-Tulloch M, Raciti D, Rodgers FH, Russell M, **Schindelman G**, Singh A, Stickland T, Van Auken K, Wang Q, Williams G, Wright AJ, Yook K, Berriman M, Howe KL, Schedl T, Stein L, Sternberg PW.

WormBase in 2022-data, processes, and tools for analyzing Caenorhabditis elegans.  
Genetics. 2022 Apr 4, 220(4)

Alliance of Genome Resources Consortium\*.  
Harmonizing model organism data in the Alliance of Genome Resources.  
Genetics. 2022 Apr 4, 220(4)

**\* my authorship listed here**

Harris TW, Arnaboldi V, Cain S, Chan J, Chen WJ, Cho J, Davis P, Gao S, Grove CA, Kishore R, Lee RYN, Muller HM, Nakamura C, Nuin P, Paulini M, Raciti D, Rodgers FH, Russell M, **Schindelman G**, Auken KV, Wang Q, Williams G, Wright AJ, Yook K, Howe KL, Schedl T, Stein L, Sternberg PW. WormBase: a modern Model Organism Information Resource. *Nucleic Acids Res.* 2020 Jan 8;48(D1):D762-D767

Lee RYN, Howe KL, Harris TW, Arnaboldi V, Cain S, Chan J, Chen WJ, Davis P, Gao S, Grove C, Kishore R, Muller HM, Nakamura C, Nuin P, Paulini M, Raciti D, Rodgers F, Russell M, **Schindelman G**, Tuli MA, Van Auken K, Wang Q, Williams G, Wright A, Yook K, Berriman M, Kersey P, Schedl T, Stein L, Sternberg PW. WormBase 2017: molting into a new stage. *Nucleic Acids Res.* 2018 Jan 4;46(D1):D869-D874

Grove C, Cain S, Chen WJ, Davis P, Harris T, Howe K, Kishore R, Lee R, Paulini M, Raciti D, Tuli MA, Van Auken K, Williams G, and The **WormBase Consortium\***. Using WormBase, a genome biology resource for *Caenorhabditis elegans* and related nematodes *Methods Mol Biol.* 2018;1757:399-470.

\* my authorship listed here

Whittaker, A; **Schindelman, G**; Gharib, S; Sternberg, PW. (2017): sy680 is a novel allele of pkd-2. *Micropublication: biology.* Dataset. <https://doi.org/10.17912/W2SW9M>

Liu, K; Hajdu-Cronin, Y; Chen, A; **Schindelman, G**; Whittaker, A; Gharib, S; Sternberg, PW. (2017): Screening for *C. elegans* male copulation-defective mutants by the mating plug phenotype. *Micropublication: biology.* Dataset. <https://doi.org/10.17912/W2SS9K>

Whittaker, A; **Schindelman, G**; Gharib, S; Sternberg, PW. (2017): A new mutation with a polycystin phenotypic spectrum in *Caenorhabditis elegans*. *Micropublication: biology.* Dataset. <https://doi.org/10.17912/W2N37P>

Howe KL, Bolt BJ, Cain S, Chan J, Chen WJ, Davis P, Done J, Down T, Gao S, Grove C, Harris TW, Kishore R, Lee R, Lomax J, Li Y, Muller HM, Nakamura C, Nuin P, Paulini M, Raciti D, **Schindelman G**, Stanley E, Tuli MA, Van Auken K, Wang D, Wang X, Williams G, Wright A, Yook K, Berriman M, Kersey P, Schedl T, Stein L, Sternberg PW. WormBase 2016: expanding to enable helminth genomic research. *Nucleic Acids Res.* 2016 Jan 4;44(D1):D774-80.

Valk J\*, **Schindelman G**, Martin GG. The peritrophic membrane of the gastropod *Megathura crenulata*: structure, composition, and site of formation. *Invertebrate Biology.* 2014 June; 133(2):136–145

\* denotes undergraduate author

Harris TW, Baran J, Bieri T, Cabunoc A, Chan J, Chen WJ, Davis P, Done J, Grove C, Howe K, Kishore R, Lee R, Li Y, Muller HM, Nakamura C, Ozersky P, Paulini M, Raciti D, **Schindelman G**, Tuli MA, Auken KV, Wang D, Wang X, Williams G, Wong JD, Yook K, Schedl T, Hodgkin J, Berriman M, Kersey P, Spieth J, Stein L, Sternberg PW. WormBase 2014: new views of curated biology. *Nucleic Acids Res.* 2014 Jan 1;42(1):D789-93.

Fang R, **Schindelman G**, Van Auken K, Fernandes J, Chen W, Wang X, Davis P, Tuli MA, Marygold SJ, Millburn G, Matthews B, Zhang H, Brown N, Gelbart WM, Sternberg PW. Automatic categorization of diverse experimental information in the bioscience literature. *BMC Bioinformatics.* 2012 Jan 26;13:16.

Yook K, Harris TW, Bieri T, Cabunoc A, Chan J, Chen WJ, Davis P, de la Cruz N, Duong A, Fang R, Ganesan U, Grove C, Howe K, Kadam S, Kishore R, Lee R, Li Y, Muller HM, Nakamura C, Nash B, Ozersky P, Paulini M, Raciti D, Rangarajan A, **Schindelman G**, Shi X, Schwarz EM, Ann Tuli M, Van Auken K, Wang D, Wang X, Williams G, Hodgkin J, Berriman M, Durbin R, Kersey P, Spieth J, Stein L, Sternberg PW. WormBase 2012: more genomes, more data, new website. *Nucleic Acids Res.* 2012 Jan;40(Database issue):D735-41.

**Schindelman G**, Fernandes JS, Bastiani CA, Yook K, Sternberg PW. Worm Phenotype Ontology: integrating phenotype data within and beyond the *C. elegans* community.  
*BMC Bioinformatics*. 2011 Jan 24;12:32.

Harris TW, Antoshechkin I, Bieri T, Blasiar D, Chan J, Chen WJ, De La Cruz N, Davis P, Duesbury M, Fang R, Fernandes J, Han M, Kishore R, Lee R, Müller HM, Nakamura C, Ozersky P, Petcherski A, Rangarajan A, Rogers A, **Schindelman G**, Schwarz EM, Tuli MA, Van Auken K, Wang D, Wang X, Williams G, Yook K, Durbin R, Stein LD, Spieth J, Sternberg PW. WormBase: a comprehensive resource for nematode research.  
*Nucleic Acids Research* 2010 Jan;38 (Database issue) D463-7

Rogers A, Antoshechkin I, Bieri T, Blasiar D, Bastiani C, Canaran P, Chan J, Chen WJ, Davis P, Fernandes J, Fiedler TJ, Han M, Harris TW, Kishore R, Lee R, McKay S, Müller HM, Nakamura C, Ozersky P, Petcherski A, **Schindelman G**, Schwarz EM, Spooner W, Tuli MA, Van Auken K, Wang D, Wang X, Williams G, Yook K, Durbin R, Stein LD, Spieth J, Sternberg PW. WormBase 2007.  
*Nucleic Acids Research* 2008 Jan;36 (Database issue) D612-7

Karbowski J, **Schindelman G**, Cronin CJ, Seah A, Sternberg PW. Systems level circuit model of *C. elegans* undulatory locomotion: mathematical modeling and molecular genetics.  
*Journal of Computational Neuroscience* 2008 Jun;24(3): 253-76.

Bieri T, Blasiar D, Ozersky P, Antoshechkin I, Bastiani C, Canaran P, Chan J, Chen N, Chen WJ, Davis P, Fiedler TJ, Girard L, Han M, Harris TW, Kishore R, Lee R, McKay S, Muller HM, Nakamura C, Petcherski A, Rangarajan A, Rogers A, **Schindelman G**, Schwarz EM, Spooner W, Tuli MA, Van Auken K, Wang D, Wang X, Williams G, Durbin R, Stein LD, Sternberg PW, Spieth J. WormBase: new content and better access.  
*Nucleic Acids Research* 2007 Jan;35 (Database issue)

**Schindelman G**, Whittaker AJ, Thum JY\*, Gharib S, Sternberg PW. Initiation of male sperm-transfer behavior in *Caenorhabditis elegans* requires input from the ventral nerve cord.  
*BMC Biology* 2006 Aug 15;4:26.

\* **denotes undergraduate author**

Roudier F, Fernandez AG, Fujita M, Himmelspach R, Borner GH, **Schindelman G**, Song S, Baskin TI, Dupree P, Wasteneys GO, and Benfey P. COBRA, an Arabidopsis Extracellular Glycosylphosphatidylinositol-Anchored Protein, Specifically Controls Highly Anisotropic Expansion through Its Involvement in Cellulose Microfibril Orientation.  
*Plant Cell* 2005 Apr 22.

Roudier F, **Schindelman G**, DeSalle R, Benfey PN. The COBRA family of putative GPI-anchored proteins in *Arabidopsis*. A new fellowship in expansion.  
*Plant Physiology* 2002 Oct;130(2):538-48.

**Schindelman G**, Morikami A, Jung J, Baskin TI, Carpita NC, Derbyshire P, McCann MC, Benfey PN. COBRA encodes a putative GPI-anchored protein, which is polarly localized and necessary for oriented cell expansion in *Arabidopsis*.  
*Genes and Development* 2001 May 1;15(9):1115-27.