
BIOGRAPHICAL SKETCH AND BIBLIOGRAPHY

NAME Shaham, Shai		POSITION TITLE Professor, Head of Laboratory	
eRA COMMONS USER NAME SHAHAM			
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Columbia College, Columbia University, NY, NY	A.B.	1985 - 1989	Biochem./Mathematics
MIT, Cambridge, MA	PhD	1989 - 1995	Biology
UCSF, San Francisco, CA	Postdoc	1996 - 2001	Biology

Professional Experience

1985 - 1989	Undergraduate research with Dr. Martin Chalfie, Columbia University, NY, NY
1990 - 1996	Graduate student with Dr. H. Robert Horvitz, MIT, Cambridge, MA
1996 - 1999	Post-doctoral fellow with Dr. Ira Herskowitz, University of California, San Francisco
1999 - 2001	Post-doctoral fellow with Dr. Cori Bargmann, University of California, San Francisco
2001 - 2007	Assistant Professor, Head of Laboratory, The Rockefeller University, NY, NY
2007 - 2012	Associate Professor, Head of Laboratory, The Rockefeller University, NY, NY
2012 - present	Professor, Head of Laboratory, The Rockefeller University, NY, NY

Honors and Awards

1988	Phi Beta Kappa (elected in Junior year)
1989	Albert Asher Green award for academic excellence, Columbia University Graduated summa cum laude, Columbia College, Columbia University Valedictorian, Columbia College, Columbia University
1992 - 1994	W.M. Keck Foundation fellow
1994 - 1995	Glaxo Research Institute fellow
1996 - 1999	Helen Hay Whitney Foundation postdoctoral fellow
1999 - 2001	Brookdale National Fellow
2002 - 2004	Strang Assistant Professor
2002 - 2004	Kimmel Scholar
2002 - 2003	Robert Leet and Clara Guthrie Patterson Trust Grantee
2003 - 2006	Rita Allen Foundation Scholar
2004 - 2009	Monique Weill-Caulier Scholar
2004 - 2006	Breast Cancer Alliance Masin Young Investigator
2005 - 2008	Klingenstein Fellow in the Neurosciences
2005	Distinguished Teaching Award, The Rockefeller University
2009	Blavatnik Award Finalist and Winner, New York Academy of Sciences
2010	Transformative R01 Award Recipient, NIH
2012	Keynote speaker, <i>C. elegans</i> Development: Germline to Adult meeting, Madison, WI
2014	Richard E. Salomon Family endowed chair, The Rockefeller University
2016	Keynote speaker, New York Area <i>C. elegans</i> meeting
2018	R35 Outstanding Investigator Award, NIH/NINDS (8 years)
2024	Keynote speaker, NESDB meeting, Woods Hole, MA

Federal Government and Public Advisory Committee ServiceNIH Study Section Member

Chair, ZRG1 MDCN-3 (02) study section, July 22, 2003
 Standing member, DEV1 study section (2012-2016)

NIH Adhoc Review

DEV2 study section, October 23-24, 2003

ZRG1 F05 20 study section (NRSA review), November 4-5, 2004

DEV1 study section, June 6, 2007

ZRG-1 MNG study section, June 23, 2008

ZRG1 BDA-L M (02) study section, July 30, 2010

DEV1 study section February 3, 2011

CMBG study section, February 18, 2016

Neural Regulation of Cancer special emphasis panel (ZRG1 OBT-B 55 R), February 27, 2018

Mechanisms of Neurogenesis, Cell Fate, Neurotransmission and Neurodegeneration study section (ZEG1 MDCN M02), March 14, 2018

Glial Cell Plasticity study section (ZAG1 ZIJ-D(J1)), November 18, 2020

NIH Workshop on Validation of Animal Models and Tools for Biomedical Research, November 17, 2020

ZRG1 CB-D 55 R study section, November 18-19, 2021

ZRG1-MDCN-D(04) SEP study section, December 8, 2021.

CMBG study section, June 16-17, 2022

CMBG study section October 19-20, 2023

ZRG1 F03A-E (20) L study section, March 5-7, 2024.

ZNS1-SRB-P (16) study section, November 19-20, 2024

Additional grant reviews

Brookdale Fellowship in Aging, CCNY-MSK Partnership, Danish National Research Foundation, Israel Science Foundation, Michael J. Fox Foundation, Michael Smith Foundation for Health Research (Canada), NSF, US-Israel Binational Science Foundation, Israel Science Foundation, Wellcome Trust.

Professional Activities

Membership: The Harvey Society, American Association for the Advancement of Science, Genetics Society of America, American Association for Cancer Research.

Manuscript Review: Apoptosis, Archives of Insect Biochemistry and Physiology, Biochemical Journal, Biology Open, BMC Biology, BMC Genomics, BMC Neuroscience, Brain Sciences, Cell, Cell Death and Differentiation, Cell Death and Disease, Cell Reports, Cellular and Molecular Life Sciences, Comparative Biochemistry and Physiology, Current Biology, Current Opinion in Neurobiology, Development, Developmental Biology, Developmental Cell, Developmental Dynamics, eLife, EMBO Journal, European Journal of Neuroscience, FASEB Journal, Genes and Development, Genetics, Genome Research, Glia, Immunology Today, Journal of Cell Biology, Journal of Cell Science, Journal of Developmental Biology, Journal of General Physiology, Journal of Neuroscience, Journal of Visualized Experiments, Methods in Enzymology, Molecular and Cellular Biology, Molecular Psychiatry, Nature, Nature Cell Biology, Nature Communications, Neuron, Neuropsychopharmacology, PLoS Biology, PLoS Genetics, PLoS One, PNAS, Science, Scientific Reports, Translational Psychiatry, Trends in Biochemical Sciences, and Worm.

Advisory Committees: EGL Charitable Fund Fellowship Review Committee 2022- present. Israel Council for Higher Education 2022 – 2023. Life Sciences Evaluation Committee, Ben Gurion University, 2024.

Meeting co-organizer: New York Area *C. elegans* meeting, New York, NY, 2002-2010. International *C. elegans* meeting, UCLA, CA, 2011. Bard Workshop: Chemosensation of plant and insect-parasitic nematodes and its role in pest control, Ma'ale Hachamisha, Israel, 2017; Glia-Neuron Interactions in Developing Circuits, The Rockefeller University, NY, 2018.

Editorial Board member: Developmental Neuroscience, 2010-2017. Cell Reports, 2011-present. Neuroglia, 2012-2013. Special Issue Editor, Current Opinion in Neurobiology, 2013. Guest editor, PLoS Genetics, 2020.

Administrative roles: Secretary, Rockefeller University Academic Senate, 2019-present. Vice President, The Harvey Society, 2022 - 2023. President, The Harvey Society, 2023 - 2024.

Patents

US Patent 5,962,301: Relatedness of human interleukin-1beta convertase gene to a *C. elegans* cell death gene, inhibitory portions of these genes and uses therefor.

US Patent 6,939,850: Altered Human Interleukin-1 β convertase (ICE), NEDD-2, and *C. elegans* CED-3 polypeptides and uses therefor.

US Patent 7,071,302: Cloning, sequencing and characterization of two cell death genes and uses therefor.

US Patent 7,138,510: Cloning, sequencing and characterization of two cell death genes and uses therefor.

Selected Invited Lectures (since 2002)

2/6/02 Biology Department Colloquium. Queens College, New York, NY; **2/6/02** International Cell Death Society Meeting, Memorial Sloan-Kettering, New York, NY; **4/29/03** Brookdale Foundation minisymposium, New York, NY; **12/22/03** Alfred E. Mirsky Lecture, The Rockefeller University, New York, NY; **8/16/04** Gordon Research Conference: Neural Development, Salve Regina College, Newport, RI; **2/2/05** International Cell Death Society Meeting, Memorial Sloan-Kettering, New York, NY; **2/28/05** Developmental Genetics Seminar series, Skirball Institute of NYU, New York, NY; **3/9/05** Departmental seminar, Dept. Mol., Cell. and Dev. Biology, Yale University, New Haven, CT; **4/20/05** Haddassah Medical Center, Hebrew University in Jerusalem, Jerusalem, Israel; **4/21/05** Weizmann Institute of Science, Rehovot, Israel; **9/22/05** Weekly seminar, Dept. of Biochemistry, Weill Cornell; **10/18/05** Developmental Biology seminar series, University of Chicago, Chicago, MI; **10/27/05** BMBCB Departmental Seminar, Northwestern University, Evanston, IL; **11/4/05** Developmental Genetics seminar series, Rutgers University, Piscataway, NJ; **12/12/05** Monday Lecture, The Rockefeller University, NY; **3/20/06** Seminar, Bard College, Annandale-on-Hudson, NY; **3/23/06** Dept. of Surgery Research Seminar, Weill Cornell; **4/24/06** Seminar, Dept. of Biology, City College of City University of NY, NY; **5/9/06** Seminar, meeting on longevity, Institute for Advanced Study, Princeton; **6/20/06** Rita Allen symposium, Center for Systems Biology, Institute for Advanced Study, Princeton, NJ; **7/11/06** Developmental biology seminar series, Hebrew University, Jerusalem, Israel; **7/13/06** Seminar, Weizmann Institute of Science, Rehovot, Israel; **7/21/06** CSH meeting: Glia in Health and Disease, Invited lecturer and session chair, Cold Spring Harbor, NY; **8/11/06** Seminar in CSHL C. *elegans* course; **10/19/06** Seminar, Bio-Med Society, Baruch College, New York, NY; **11/27/06** Seminar, SLRI, University of Toronto, Toronto, Canada; **1/8/07** Monday Lecture, The Rockefeller University, NY; **3/10/07** Invited poster, Kimmel Scholars Symposium, Boca Raton, FL; **3/24/07** Invited lecture, 9th International Neuroscience Winter Conference, Sölden, Austria; **4/16/07** Biological sciences colloquium, Hunter College, New York, NY; **10/25/07** Neuroscience seminar series, University of Massachusetts Medical School, Worcester, MA; **12/10/07** Cell death symposium, the Rockefeller University, New York, NY; **2/20/08** Departmental seminar, The Weizmann institute of Science, Rehovot, Israel; **4/25/08** North East Society for Developmental Biology meeting, Woods Hole, MA. **7/21/08** CSH meeting: Glia in Health and Disease; **8/17/08** Gordon Research Conference: Neural Development, Salve Regina College, Newport, RI; **9/6/08** Euroconference on Apoptosis, Bern, Switzerland; **11/4/08** Departmental seminar, UMass Amherst, MA; **11/12/08** Departmental seminar, University of Rochester, Rochester, NY; **2/10/09** Nutrient Sensing meeting, New York Academy of Sciences, New York, NY; **2/17/09** Keystone symposium: Neurodegenerative Diseases: New Molecular Mechanisms, Keystone, CO; **3/13/09** Friday Lecture, The Rockefeller University, New York, NY; **3/15/09** Gordon Research Conference: Glial Biology: Functional Interactions Among Glia and Neurons; **3/25/09** Keystone symposium: Cell Death Pathways, Whistler, British Columbia, Canada; **4/20/09** Departmental seminar, Dept. of Genetics, The Weizmann Institute, Rehovot, Israel; **10/5/09** Departmental seminar, Depts. Of Genetics/Epigenetics and Cell/Developmental Biology, University of Pennsylvania, Philadelphia, PA; **11/2/09** miRNAs and Other Non-coding RNAs in Nervous System Development and Function meeting, New York Academy of Sciences, New York, NY; **11/9/09** Developmental Neurobiology course lecture, Albert Einstein College of Medicine, New York, NY; **11/23/09** Departmental Seminar, Dept. of Molecular Pharmacology, Albert Einstein College of Medicine, New York, NY; **2/3/10** Departmental seminar, Dept. of Biology, Brandeis University, Waltham, MA; **4/15/10** Seminar, Dept. of Biology, University of Utah, Salt Lake City, UT; **4/27/10** Seminar series, Institute of Molecular Biology, University of Oregon, Eugene, OR; **7/5/10** Departmental Seminar, Dept. of Biology, Technion, Haifa, Israel; **10/29/10** Lecture, Developmental Neurobiology course, Albert Einstein College of Medicine, New York, NY; **11/5/10** Lecture, The Urban Assembly School for Applied Math and Science, The Rockefeller University, New York, NY; **11/30/10** Lecture, Developmental Neurobiology course, University of Pennsylvania, Philadelphia, PA; **1/5/11** Seminar, University of Toronto, Canada; **2/11/11** Seminar series, Interdisciplinary Neuroscience Program, University of Miami School of Medicine, Miami, FL; **3/16/11** Seminar, Centre for Research in Neuroscience, McGill University, Montreal, Canada; **4/2/11** Lecture, New Concepts in Cell Death Processes Symposium, 102nd annual meeting of the AACR, Orlando, FL; **4/11/11** Departmental Seminar, Dept. of Biology, NYU, New York, NY; **5/11/11** Cell Death Symposium, The Rockefeller University, New York, NY; **6/2/11** Neurobiology Seminar Series, Columbia University Medical Center, New York, NY; **11/18/11** Seminar, Dept. of Biology, University of Virginia; **1/15/12** Molecular Neurobiology Conference, Weizmann Institute, Israel; **1/17/12** Biological Chemistry Departmental Seminar, Weizmann Institute, Israel; **2/19/12** Programmed Cell Death in Model Organisms meeting, Ein Gedi, Israel; **3/12/12** Cell and Developmental Biology seminar series, Vanderbilt University Medical Center, Nashville, TN; **4/23/12** Klingenstein Fund meeting, New York, NY;

4/30/12 Department Seminar, University of Texas, Austin; **6/7/12** Keynote speaker, *C. elegans* Development: Germline to Adult meeting, Madison, WI; **10/22/12** Neuroscience seminar, University of Ottawa, Canada; **11/2/12** Lecture, Developmental Neurobiology course, Albert Einstein College of Medicine, New York, NY; **11/19/12** CNNR seminar series, Yale University, New Haven, CT; **12/6/12** Dept. seminar, Johns Hopkins, Baltimore, MD; **1/24/13** Biochemistry and Molecular biology Dept. seminar, Baylor College of Medicine, Houston, TX; **4/15/13** CSHL Asia meeting on Mechanisms and Functions of Non-apoptotic Cell Death, Suzhou, China; **8/29/13** Seminar, Molecular Neuroscience Forum, Weizmann institute, Israel; **10/11/13** Seminar, Dept. of Molecular Biology, University of Wyoming, Laramie, WY; **1/15/14** Seminar, Cincinnati Children's Hospital, Cincinnati, OH; **2/6/14** Seminar, Institute for Neuroscience, George Washington University, Washington DC; **10/12/14** Featured speaker, Conference of Glial Biology in Medicine, University of Alabama, Birmingham, AL; **11/20/14** Seminar, Department of Cell Biology, Duke University School of Medicine, Durham, NC; **3/1/15** Seminar, Functional Interactions among Glia & Neurons Gordon Research Conference, Ventura, CA; **3/25/15** Lecture, Glial Mechanisms in Injury and Disease, Duke University, Durham, NC; **4/27/15** Seminar, Dept. of Biochemistry, University of Washington, Seattle, WA; **10/28/15** Seminar, Dept. of Biology, Indiana University, Bloomington, IN; **11/5/15** Kavli Center Meeting, Rockefeller; **1/15/16** Keynote seminar, NYAWM; **3/23/16** American Society for Neurochemistry meeting, Denver, CO; **4/15/16** Seminar, Packard center, Johns Hopkins, Baltimore, MD; **5/7/16** Lecture at Science Saturday outreach program, Rockefeller; **7/31/16** Neural Development Gordon Conference; **11/14/16** Department Seminar, Department of Biology, Columbia University, NY; **11/16/16** Seminar, Developmental Biology group, MSKCC, NY; **4/27/17** Seminar, NYU MD/PhD program. **5/28/17** Speaker, Horvitzfest, MIT, MA; **6/18/17** Cell Death In Development and Disease Meeting, Weizmann Institute, Israel; **6/25/17** Bard Workshop: Chemosensation of plant and insect-parasitic nematodes and its role in pest control. Ma'ale Hachamisha, Israel; **10/10/17** Rockefeller Stem Cell Retreat seminar; **3/25/18** American Society for Neurochemistry meeting, Riverside, CA; **8/13/18** Seminar, Technion, Israel; **11/6/18** Society for Neuroscience meeting, San Diego; **11/16/18** Seminar, Albert Einstein College of Medicine, New York, NY; **2/21/19** Department Seminar, Mount Sinai School of Medicine, New York, NY; **3/4/19** Glial Biology Gordon Conference, Ventura, CA; **5/13/19** Manhattan Glia Spring Meeting, Center for Glia Biology, Mount Sinai, NY; **6/3/19** Phagocytes Gordon conference, Waterville Valley, NH; **6/27/19** ICDS 25th Anniversary Meeting, Mount Sinai, NY; **9/22/19** Non-Apoptotic Roles of Apoptotic Proteins meeting, Weizmann Institute of Science, Rehovot, Israel. **7/9/20** Invited Speaker, *C. elegans* Topic Meeting: neuronal development, synaptic function and behavior, Vienna, Austria; **7/16/20** Invited Speaker, Glia in Health & Disease, CSHL, NY; **11/25/20** Invited Speaker, 3rd Symposium of Physiology and Pathology of Neuroglia, Mexico; **12/29/21** Invited seminar, Israel Cell Death Society seminar series; **02/16/22** Developmental Biology Seminar, MSKCC, NY; **05/05/22** Invited speaker, 2022 Department of Pharmacology Seminar Series, URSW, Dallas, TX; **07/02/22** Invited speaker, International Cell Death Society meeting, Istanbul, Turkey; **07/25/22** Invited speaker, CeNeuro meeting, Vienna, Austria; **08/12/22** Invited speaker, *C. elegans* Development Cell Biology & Gene Expression meeting, Madison, WI; **09/05/22** Invited speaker, The 2nd Conference on Non-Apoptotic Roles of Apoptotic Proteins, Galway, Ireland; **12/12/22** Seminar, Rockefeller University, NY; **03/21/23** Invited speaker, SNF Symposium, Rockefeller University, NY; **11/09/23** Speaker, Karger Workshop on the Evolution and Diversification of glia across invertebrates and vertebrates; **04/26/24** Keynote Speaker, Northeast Society of Developmental Biology meeting, Woods Hole, MA.

Teaching Experience

2002-2019 Co-organized and taught first required graduate course at The Rockefeller University: "Experiment and Theory in Modern Biology", 2002-2020 Co-organized and taught in the graduate Cell Biology course at Rockefeller.

Publications (in chronological order)

1. Yuan*, J., Shaham*, S., Ledoux, S., Ellis, H. M., and Horvitz, H. R. (1993). The *C. elegans* cell death gene *ced-3* encodes a protein similar to mammalian interleukin-1 β converting enzyme. **Cell** 75: 641-652.

*S. S. and J. Y. contributed equally to this paper

2. Horvitz, H. R., Shaham, S., and Hengartner, M. O. (1994). The genetics of programmed cell death in the nematode *Caenorhabditis elegans*. **Cold Spring Harbor Symp. Quant. Biol.** 59: 377-385.

3. Shaham, S., and Horvitz, H. R. (1996). Developing *C. elegans* neurons may contain both cell-death protective and killer activities. **Genes & Development** 10: 578-591.

4. Xue, D., Shaham, S., and Horvitz, H. R. (1996). The *Caenorhabditis elegans* cell-death protein CED-3 is a cysteine protease with substrate specificities similar to those of the human CPP32 protease. **Genes &**

Development 10: 1073-1083.

5. Shaham, S., and Horvitz, H. R. (1996). An alternatively spliced *C. elegans ced-4* RNA encodes a novel cell-death inhibitor. **Cell** 86: 201-208.
6. Shaham, S., Shuman, M. A., and Herskowitz, I. (1998). Death-Defying Yeast Identify Novel Apoptosis Genes. **Cell** 92: 425-427.
7. Shaham, S. (1998). Identification of multiple *Caenorhabditis elegans* caspases and their potential roles in proteolytic cascades. **J. Biol. Chem.** 273: 35109-35117.
8. Blondel, M., Alepuz, P. M., Huang, L. S., Shaham, S., Ammerer, G., and Peter, M. (1999). Nuclear export of Far1p in response to pheromones requires the export receptor Msn5p/Ste21p. **Genes & Development** 13: 2286-2300. PMID: PMC317000.
9. Shaham, S., Reddien, P. W., Davies, B., and Horvitz, H. R. (1999). Mutational analysis of the *C. elegans* cell death gene *ced-3*. **Genetics** 153: 1655-1671. PMID: PMC1460877.
10. Shaham, S. and Bargmann, C. I. (2002). Control of neuronal subtype identity by the *C. elegans* ARID protein CFI-1. **Genes & Development** 16: 972-983. PMID: PMC152356.
11. Shaham, S. (2003). Apoptosis: A Process with a (β)NAC for Complexity. **Cell** 114: 659-661.
12. Abraham, M. C. and Shaham, S. (2004). Death without caspases, caspases without death. **Trends Cell Biol.** 14: 184-193.
13. Schumacher, B., Schertel, C., Wittenburg, N., Tuck, S., Mitani, S., Gartner, A., Conradt, B., and Shaham, S. (2005). *C. elegans ced-13* can promote apoptosis and is induced in response to DNA damage. **Cell Death and Diff.** 12: 153-161.
14. Blacque, O. E., Perens, E., Boroevich, K. A., Inglis, P. N., Li, C., Warner, A., Khattra, J., Holt, R. A., Mah, A. K., McKay, S. J., Huang, P., Swoboda, P., Jones, S. J. M., Marra, M. A., Baillie, D. L., Moerman, D. G., Shaham, S., and Leroux, M. R. (2005). Functional genomics of the cilium, a sensory organ. **Curr. Biol.** 15: 935-941.
15. Perens, E. and Shaham, S. (2005). *C. elegans daf-6* encodes a Patched-related protein required for lumen formation. **Dev. Cell** 8: 893-906.
16. Shaham, S. (2005). Glia-Neuron Interactions in Nervous System Function and Development. **Curr. Top. Dev. Biol.** 69: 39-66.
17. Shaham, S. (2005). Methods in *C. elegans* Cell Biology. In: WormBook. The *C. elegans* Research Community, **WormBook**, doi/10.1895/wormbook.1.49.1, <http://www.wormbook.org>.
18. Shaham, S. (2006). Worming into the cell: viral reproduction in *C. elegans*. **Proc. Natl. Acad. Sci.** 103: 3955-3956. PMID: PMC1449626.
19. Shaham, S. (2006). The dynam(i)cs of cell corpse engulfment. **Dev. Cell** 10: 690-691.
20. Shaham, S. (2006). Glia-neuron interactions in the nervous system of *C. elegans*. **Curr. Op. Neurobiol.** 16: 522-528.
21. Abraham, M. C., Lu, Y., and Shaham, S. (2007). A morphologically conserved non-apoptotic program promotes linker cell death in *C. elegans*. **Dev. Cell** 12: 73-86.
22. Maurer, C., Chiorazzi, M., and Shaham, S. (2007). Timing of the onset of a developmental cell death is controlled by transcriptional induction of the *C. elegans ced-3* caspase-encoding gene. **Development** 134: 1357-1368.
23. Mukhopadhyay, S., Lu, Y., Qin, H., Lanjuin, A., Rosenbaum, J. L., Shaham, S., and Sengupta, P. (2007). Distinct IFT mechanisms contribute to the generation of ciliary structural diversity in *C. elegans*. **EMBO J.** 26: 2966-2980. PMID: PMC1894762.
24. Bacaj, T. and Shaham, S. (2007). Temporal control of cell-specific transgene expression in *C. elegans*. **Genetics** 176: 2651-2655. PMID: PMC1950662.
25. Heiman, M. and Shaham, S. (2007). Ancestral roles of glia suggested by the nervous system of *Caenorhabditis elegans*. **Neuron Glia Biol.** 3: 55-61.

26. Abraham, M. and Shaham, S. (2007). Necrosis and the serpin under't. **Dev. Cell** 13: 464-465.
27. Shaham, S. (2007). Counting mutagenized genomes and optimizing genetic screens in *Caenorhabditis elegans*. **PLoS One** 2: e1117. PMID: PMC2065842.
28. Bacaj, T., Lu, Y., and Shaham, S. (2008). The Conserved Proteins CHE-12 and DYF-11 Are Required for Sensory Cilium Function in *Caenorhabditis elegans*. **Genetics** 178: 989-1002. PMID: PMC2248344.
29. Mukhopadhyay, S., Lu, Y., Shaham, S., and Sengupta, P. (2008). Sensory signaling-dependent remodeling of olfactory cilia architecture in *C. elegans*. **Dev. Cell** 14: 762-774. PMID: PMC2442577.
30. Yoshimura, S. Murray, J. I., Lu, Y., Waterston, R. H., and Shaham, S. (2008). *mls-2* and *vab-3* control glia development, *hlh-17*/Olig expression, and glia-dependent neurite extension in *C. elegans*. **Development** 135: 2263-2275.
31. Blum, E. S. and Shaham, S. (2008). Non-Canonical Cell Death Programs in the nematode *Caenorhabditis elegans*. **Cell Death and Diff.** 15: 1124-1131.
32. Wang, Y., Apicella, A., Lee, S., Ezcurra, M., Slone, D., Goldmit, M., Schafer, W. R., Shaham, S., Driscoll, M., and Bianchi, L. (2008). A glial DEG/ENaC channel functions with neuronal channel DEG-1 to mediate specific sensory functions in *C. elegans*. **EMBO J.** 27: 2388-2399. PMID: PMC2543049.
33. Deng, X., Yin, X., Allan, R., Lu, D. D., Maurer, C. W., Haimovitz-Friedman, A., Shaham, S., and Kolesnik, R. (2008). Ceramide Biogenesis is Required for Radiation-induced Apoptosis in the Germ Line of *Caenorhabditis elegans*. **Science** 322: 110-115. PMID: PMC2585063.
34. Bacaj, T., Goldmit, M., Lu, Y., and Shaham, S. (2008). Glia are essential for sensory organ function in *C. elegans*. **Science** 322: 744-747. PMID: PMC2735448.
35. Heiman, M. G. and Shaham, S. (2009). DEX-1 and DYF-7 establish sensory dendrite length by anchoring dendritic tips during cell migration. **Cell** 137: 344-355. PMID: PMC2673108.
36. Shaham, S. (2009). galign: a Tool for Rapid Genome Polymorphism Discovery. **PLoS One** 4: e7188. PMID: PMC2746318.
37. Procko, C. and Shaham, S. (2009). Synaptogenesis: A New Role for an Old Player. **Curr. Biol.** 19: R1114-R1115. PMID: PMC2859202.
38. Shaham, S. (2010). Chemosensory organs as models of neuronal synapses. **Nat. Rev. Neurosci.** 11: 212-217. PMID: PMC2860653.
39. Clark, A. M., Goldstein, L. D., Tevlin, M., Tavaré, S., Shaham, S., and Miska, E. A. (2010). The microRNA miR-124 controls gene expression in the sensory nervous system of *Caenorhabditis elegans*. **Nuc. Acids Res.** 38: 3780-3793. PMID: PMC2887956.
40. Heiman M. G. and Shaham, S. (2010). Twigs into branches: how a filopodium becomes a dendrite. **Curr. Opin. Neurobiol.** 20: 86-91. PMID: PMC2827671.
41. Procko, C., Lu, Y., and Shaham, S. (2011). Glia delimit shape changes of sensory neuron receptive endings in *C. elegans*. **Development** 138: 1371-1381. PMID: PMC3050665.
42. Procko, C. and Shaham, S. (2010). Assisted morphogenesis: glial control of dendrite shapes. **Curr. Opin. Cell Biol.** 22: 560-565. PMID: PMC2964646.
43. Oikonomou, G. and Shaham, S. (2011). The glia of *Caenorhabditis elegans*. **Glia** 59: 1253-1263. PMID: PMC3117073.
44. Hao, L., Thein, M., Brust-Mascher, I., Civelekoglu-Scholey, G., Lu, Y., Acar, S., Prevo, B., Shaham, S., and Scholey, J. M. (2011). Delivery of tubulin isoforms to sensory cilium middle and distal segments by intraflagellar transport. **Nat. Cell Biol.** 13: 790-798. PMID: PMC3129367.
45. Spencer, C. W., Zeller, G., Watson, J. D., Henz, S. R., Watkins, K. L., McWhirter, R. D., Petersen, S., Sreedharan, V., Widmer, C., Jo, J., Reinke, V., Petrella, L., Strome, S., Von Stetina, S., Katz, M., Shaham, S., Räscher, G., and Miller, D. M (2011). A Spatial and Temporal Map of *C. elegans* Gene Expression. **Genome Res.** 21: 325-341. PMID: PMC3032935.

46. Oikonomou, G., Perens, E. A., Watanabe, S., Lu, Y., Jorgensen, E., and Shaham, S. (2011). Opposing Activities of LIT-1/NLK and DAF-6/Patched-related Direct Glial Sensory Compartment Morphogenesis in *C. elegans*. **PLoS Biol.** 9: e1001121. PMID: PMC3153439.
47. Blum, E.S., Abraham, M.C., Yoshimura, S., Lu, Y., and Shaham, S. (2012). Control of non-apoptotic developmental cell death in *C. elegans* by a polyglutamine-repeat protein. **Science** 335: 970-973. PMID: PMC3858082.
48. Oikonomou, G., Perens, E. A., Lu, Y., and Shaham, S. (2012). Some, but not all, retromer components promote morphogenesis of *C. elegans* sensory compartments. **Dev. Biol.** 362: 42-49. PMID: PMC3254776.
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