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CURRICULUM VITAE

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Date of Birth: January 15, 1947

Education:

1969	A.B. Harvard University
1976	Ph.D. Harvard University; Thesis: Catecholamine synthesis and release from a rat pheochromocytoma. Advisor: Robert L. Perlman
1977-1982	Postdoctoral Fellow with Sydney Brenner, MRC Laboratory of Molecular Biology, Cambridge, England

Positions:

1982-1989	Assistant Professor, Columbia University
1989-1993	Associate Professor, Columbia University
1994-present	Professor, Columbia University
2002-2013	William R. Kenan, Jr. Professor of Biological Sciences, Columbia University
2007-2010	Chair, Department of Biological Sciences, Columbia University
2013-present	University Professor, Columbia University

Memberships: Genetics Society of America, American Society for Cell Biology, Society for Developmental Biology, Society for Neuroscience

Honors: Joseph J. Napolitano Memorial Lecture (Adelphi University), 1984
Speaker, Presidential Symposium (Society for Neuroscience), 1992
McKnight Neuroscience Development Award 1991-1994
N.I.H. Method to Extend Research in Time (MERIT) Award, 1999
H. Niemeyer Lecture (Society for Biology, Chile) 2000
Fellow, American Academy of Arts and Sciences, elected 2003
Member, National Academy of Sciences, elected 2004
Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Science (Brandeis University). corecipient with Roger Tsien, 2006
Fellow, American Association for the Advancement of Science, elected 2007
E.B. Wilson Medal (American Society for Cell Biology; corecipient with Roger Tsien), 2008
Nobel Prize in Chemistry (corecipient with Osamu Shimomura and Roger Y. Tsien), 2008
Michael Smith Lecture, University of British Columbia, 2009
Honorary Fellow, Royal Society of Chemistry, elected 2009
Member, Institute of Medicine, elected 2009
Fellow, Polish Medical Society and Albert Schweitzer Medical Society, elected 2010
Simão Mathias Medal, Brazilian Chemical Society, 2010
Sydney Brenner Lecture, Salk Institute, 2010
Oliver Smithies Lecture, University of Wisconsin, 2010
Shipley Lectures, Clarkson University, 2010
James E. Beall II Memorial Lectureship, University of Texas Medical Branch, 2010
Distinguished Scientist Award, American Heart Association, 2010
Honorary Doctorate of Science, Niagara University, 2011
Pioneer in Photonics Award, Fitzpatrick Institute of Photonics, Duke University, 2011
Princesses Lecture, Victor Chang Cardiac Research Institute, Sydney, Australia, 2011
Albert Einstein Memorial Lecture, Princeton Regional Chamber of Commerce, 2012
Harvey Society Lecture, 2012
Honorary Doctorate, Ilan University, 2012
Golden Goose Award, 2012

Gold Medal of the Republic of Armenia Ministry of Science and Education, 2012
Fellow, Academy of the American Association for Cancer Research, 2013
2013 Prof. Tushar K. Chowdhury Memorial Lecture, Oklahoma University, 2013
Oliver Smithies Lecture, University of North Carolina, 2014
34th Arthur Sweeny, Jr. Lecture, Lehman College, 2014
Distinguished Lecturer 2013-2014, Department of Chemistry, University of Louisville, 2014
Honorary Doctorate, National University of Brasilia, 2014
CCIB Lecture, University of Virginia, 2014
Dakin Lecture, Adelphi University, 2015
Honorary Doctorate of Science, Middlebury College, 2015
IUMBM Lecture, Combined IUBMB and SBBq Meeting, 2015
18th Putcha Venkateswarlu Memorial Lecture, Alabama Agricultural and Mechanical University, 2015

Extramural activities:

Meeting Organizer: First and Fourth East Coast *C. elegans* Meetings, 1986 & 1992; 1991 *C. elegans* Meeting; 2005 Mechanosensation and Gravitational Signaling Gordon Conference (Co-chair, 2003)
Consultant, Cambridge NeuroScience Research, Inc., 1988 to 1993; Member, Scientific Board, Layton Bioscience, Inc., 1994 to 1998
Member, NIH Molecular Cytology Study Section (CTY), 1992 to 1996 (Chair, 1994 to 1996), NIH Molecular, Cell, and Developmental Neurobiology Study Section 7 (MCDN7), 1999 to 2000 (Chair, 1999 to 2000)
Member, NINDS Strategic Planning Panel for Neurogenetics (1999)
Speaker, Congressional Biomedical Research Caucus, May 19, 1999 and May 20, 2009.
Editor-in-chief, *WormBook*, 2004-2015
At-large Member, Coalition for the Life Sciences, since 2010
Chair, Public Policy Committee, Genetics Society of America, 2011-2014
Member (since 2013) and Chair (beginning 2015) Committee on Human Rights, National Academies of Science
President, Society for Developmental, 2013-2014
Council Member, American Society for Cell Biology, 2013 - 2015
Current Advisory Boards: WormBase (since 2000); Columbia Science Honors Program (since 2008); Italian Institute of Technology (since 2010); New York Academy of Sciences Board of Governors (since 2010); Gruber Foundation Genetics Prize (2010-2015); Sackler International Biophysics Prize, Tel Aviv University (since 2011); Leon M. Lederman Frontiers of STEM Symposium, Illinois Math and Science Academy (since 2011), Sagol School of Neuroscience, Tel Aviv University (since 2012); Sackler Institute Honoring Herb Pardis, Columbia (since 2012); Blavatnik Awards Scientific Advisory Council (since 2013); Gruber Foundation Neuroscience Prize (2014-2017)

PATENTS

1. M. Chalfie, M. Driscoll, and E. Wolinsky, DNA sequences involved in neuronal degeneration: Multicellular organisms containing same and uses thereof. US Patent #5,196,333 (issued March 23, 1993)
2. M. Chalfie and D. Prasher, Uses of a green-fluorescent protein. US Patent #5,491,084 (issued February 13, 1996)
3. W. W. Ward and M. Chalfie, Expression of a gene for a modified green-fluorescent protein. US Patent #5,741,668 (issued April 21, 1998).
4. M. Chalfie and D. Prasher, Green fluorescent protein. US Patent #6,146,826 (issued November 14, 2000).

PUBLICATIONS

Research Articles

1. M. Chalfie, A.H. Neufeld, and J. A. Zadunaisky (1972) Action of epinephrine and other cyclic AMP-mediated agents on the chloride transport of the frog cornea. *Invest. Ophthalmol.* **11**: 644-650.
2. M. Chalfie and R.L. Perlman (1976) Studies of a transplantable rat pheochromocytoma: biochemical characterization and catecholamine secretion. *J. Pharmacol. Exp. Ther.* **197**: 615-622.

3. M. Chalfie, D. Hoadley, S. Pastan, and R.L. Perlman (1976) Calcium uptake into a rat pheochromocytoma. *J. Neurochem.* **27**: 1405-1409.
4. M. Chalfie and R.L. Perlman (1977) Regulation of catecholamine biosynthesis in a transplantable rat pheochromocytoma. *J. Pharmacol. Exp. Ther.* **200**: 588-597.
5. M. Chalfie, L. Settipani, and R.L. Perlman (1978) Activation of tyrosine 3-mono-oxygenase in pheochromocytoma cells by lasalocid. *Biochem. Pharmacol.* **27**: 673-677.
6. M. Chalfie, L. Settipani, and R.L. Perlman (1979) The role of cyclic 3':5'-monophosphate in the regulation of tyrosine 3-mono-oxygenase. *Molec. Pharmacol.* **15**: 263-271.
7. M. Chalfie and J.N. Thomson (1979) Organization of neuronal microtubules in the nematode *Caenorhabditis elegans*. *J. Cell Biol.* **82**: 278-289.
8. M. Chalfie and J. Sulston (1981) Developmental genetics of the mechanosensory neurons of *Caenorhabditis elegans*. *Develop. Biol.* **82**: 358-370.
9. M. Chalfie, H.R. Horvitz, and J.E. Sulston (1981) Mutations that lead to reiterations in the cell lineages of *Caenorhabditis elegans*. *Cell* **24**: 59-69.
10. M. Chalfie and J.N. Thomson (1982) Structural and functional diversity in the neuronal microtubules of *Caenorhabditis elegans*. *J. Cell Biol.* **93**: 15-23.
11. H.R. Horvitz, M. Chalfie, C. Trent, J.E. Sulston, and P.D. Evans (1982) Serotonin and octopamine in the nematode *Caenorhabditis elegans*. *Science* **216**: 1012-1014.
12. M. Chalfie, J.N. Thomson, and J.E. Sulston (1983) Induction of neuronal branching in *Caenorhabditis elegans*. *Science* **221**: 61-63.
13. M. Chalfie, J.E. Sulston, J.G. White, E. Southgate, J.N. Thomson, and S. Brenner (1985) The neural circuit for touch sensitivity in *Caenorhabditis elegans*. *J. Neurosci*. **5**: 956-964.
14. W.W. Walthall and M. Chalfie (1988) Cell-cell interaction in the guidance of late-developing neurons in *Caenorhabditis elegans*. *Science* **239**: 643-645.
15. J.C. Way and M. Chalfie (1988) *mec-3*, a homeobox-containing gene that specifies differentiation of the touch receptor neurons in *C. elegans*. *Cell* **54**: 5-16.
16. M. Chalfie and M. Au (1989) Genetic control of differentiation of the *C. elegans* touch receptor neurons. *Science* **243**: 1027-1033.
17. C. Savage, M. Hamelin, J.G. Culotti, A. Coulson, D.G. Albertson, and M. Chalfie (1989) *mec-7* is a β-tubulin gene required for the production of 15-protofilament microtubules in *Caenorhabditis elegans*. *Genes and Develop.* **3**: 870-881.
18. M. Driscoll, E. Dean, E. Reilly, E. Bergholz, and M. Chalfie (1989) Genetic and molecular analysis of a *C. elegans* β-tubulin that conveys benomyl sensitivity. *J. Cell Biol.* **109**: 2993-3003.
19. J.C. Way and M. Chalfie (1989) The *mec-3* gene of *Caenorhabditis elegans* requires its own product for maintained expression and is expressed in three neuronal cell types. *Genes and Develop.* **3**: 1823-1833.
20. C. Li and M. Chalfie (1990) Organogenesis in *C. elegans*: Positioning of neurons and muscles in the egg-laying system. *Neuron* **4**: 681-695.
21. M. Chalfie and E. Wolinsky (1990) The identification and suppression of inherited neurodegeneration in *Caenorhabditis elegans*. *Nature* **345**: 410-416.
22. M. Driscoll and M. Chalfie (1991) The *mec-4* gene is a member of a family of *Caenorhabditis elegans* genes that can mutate to induce neuronal degeneration. *Nature* **349**: 588-593.
23. D. Xue, M. Finney, G. Ruvkun, and M. Chalfie (1992) Regulation of the *mec-3* gene by the *C. elegans* homeoproteins UNC-86 and MEC-3. *EMBO J.* **11**: 4969-4979.
24. M. Chalfie, M. Driscoll, and M. Huang (1993) Degenerin similarities. *Nature* **361**: 504.
25. D. Xue, Y. Tu, and M. Chalfie (1993) Cooperative interactions between the C. elegans homeoproteins UNC-86 and MEC-3. *Science* **261**: 1324-1328.
26. S. Mitani, H. Du, D.H. Hall, M. Driscoll, and M. Chalfie (1993) Combinatorial control of touch receptor neuron expression in *Caenorhabditis elegans*. *Development* **119**: 773-783.
27. M. Huang and M. Chalfie (1994) Gene interactions affecting mechanosensory transduction in *Caenorhabditis elegans*. *Nature* **367**: 467-470.
28. M. Chalfie, Y. Tu, G. Euskirchen, W.W. Ward, and D.C. Prasher (1994) Green fluorescent protein as a marker for gene expression. *Science* **263**: 802-805.
29. C. Savage, Y. Xue, S. Mitani, D. Hall, R. Zakhary, and M. Chalfie (1994) Mutations in the *C. elegans* β-tubulin gene *mec-7*: Effects on microtubule assembly and stability and on tubulin autoregulation. *J. Cell Sci.* **107**: 2165-2175.
30. J. García-Añoveros, C. Ma, and M. Chalfie (1995) An extracellular domain regulates degenerin channel activity. *Curr. Biol.* **5**: 441-448.
31. M. Treinin and M. Chalfie (1995) A mutated acetylcholine receptor subunit causes neuronal degeneration

in *C. elegans*. *Neuron* **14**: 871-877.
32. M. Huang, G. Gu, E.L. Ferguson, and M. Chalfie (1995) A stomatin-like protein necessary for mechanosensation in *C. elegans*. *Nature* **378**: 292-295.
33. H. Du, G. Gu, C. William, and M. Chalfie (1996) Extracellular proteins needed for C. elegans mechanosensation. *Neuron* **16**: 183-194.
34. G. Gu, G.A. Caldwell, and M. Chalfie (1996) Genetic interactions affecting touch sensitivity in *Caenorhabditis elegans*. *Proc. Natl. Acad. Sci. USA* **93**: 6577-6582.
35. C.-C. Lai, K. Hong, M. Kinnell, M. Chalfie, and M. Driscoll (1996) Sequence and transmembrane topology of MEC-4, an ion channel subunit required for mechanotransduction in *C. elegans*. *J. Cell Biol.* **133**: 1071-81.
36. D.H. Hall, G. Gu, J. García-Añoveros, L. Gong, M. Chalfie, and M. Driscoll (1997) Neuropathology of degenerative cell death in C. elegans. *J. Neurosci.* **17**: 1033-1045.
37. A. Duggan, C. Ma, and M. Chalfie (1998) Regulation of touch receptor differentiation by the *C. elegans mec-3* and *unc-86* genes. *Development* **125**: 4107-4119.
38. M. Treinin, B. Gillo, L. Liebman, and M. Chalfie (1998) Two functionally dependent acetylcholine subunits are encoded in a single *C. elegans* operon. *Proc. Natl. Acad. Sci. USA*, **95**: 15492-15495.
39. R.Y.N. Lee, E.R. Sawin, M. Chalfie, H.R. Horvitz, and L. Avery (1999) EAT-4, a homolog of a mammalian sodium-dependent inorganic phosphate cotransporter, is necessary for glutamatergic neurotransmission in *Caenorhabditis elegans*. *J. Neurosci.* **19**: 159-167.
40. [Retracted] J. Taub, J. F. Lau, C. Ma, J. H. Hahn, R. Hoque, J. Rothblatt, and M. Chalfie (1999) A cytosolic catalase is needed to extend adult life-span in *C. elegans daf-c* and *clk-1* mutants. *Nature* **399**: 162-166.
41. J. Wu, A. Duggan, and M. Chalfie (2001) Inhibition of touch cell fate by *egl-44* and *egl-46* in *C. elegans*. *Genes Develop.* **15**: 789-802.
42. H. Du and M. Chalfie (2001) Genes regulating touch cell development in *C. elegans*. *Genetics* **158**: 197-207.
43. M. B. Goodman, G. G. Ernstrom, D. S. Chelur, R. O'Hagan, C. A. Yao, and M. Chalfie (2002) MEC-2 regulates *C. elegans* DEG/ENaC channels needed for mechanosensation. *Nature* **415**: 1039-1042.
44. Y. Zhang, C. Ma, T. Delohery, B. Nasipak, B. C. Foat, A. Bounoutas, H. J. Bussemaker, S. K. Kim, and M. Chalfie (2002) Identification of genes expressed in *C. elegans* touch receptor neurons. *Nature* **418**: 331-335.
45. Y. Zhang and M. Chalfie (2002) MTD-1, a touch-cell-specific membrane protein with a subtle effect on touch sensitivity. *Mech. Develop.***119**: 3-7.
46. D. S. Chelur, G. G. Ernstrom, M. B. Goodman, C. A. Yao, L. Chen, R. O'Hagan, and M. Chalfie (2002) The mechanosensory protein MEC-6 is a subunit of the *C. elegans* touch-cell degenerin channel. *Nature* **420**: 699-673.
47. A.S. Toker, Y. Teng, H. B. Ferreira, S. W. Emmons, and M. Chalfie (2003) The *Caenorhabditis elegans* gene *sem-4* regulates terminal differentiation and anteroposterior patterning of neurons in the tail. *Development* **130**: 3831-3840.
48. M. Poyurovsky, X. Jacq, C. Ma, O. Karni-Schmidt, P. J. Parker, M. Chalfie, J. L. Manley, and C. Prives (2003) Nucleotide binding by the MDM2 RING domain facilitates ARF-independent MDM2 nucleolar localization. *Molec. Cell* **12**: 875-887.
49. S. Zhang, C. Ma, and M. Chalfie (2004) Combinatorial marking of cells and organelles with reconstituted fluorescent proteins. *Cell* **119**: 137-144.
50. S. Zhang, J. Arnadottir, C. Keller, G. A. Caldwell, C. A. Yao, and M. Chalfie (2004) MEC-2 is recruited to the putative mechanosensory complex in *C. elegans* touch receptor neurons through its stomatin-like domain. *Curr. Biol.* **14**: 1888-1896.
51. L. Emtage, G. Gu, E. Hartwieg, and M. Chalfie (2004) Extracellular proteins organize the mechanosensory channel complex in *C. elegans* touch receptor neurons. *Neuron* **44**: 795-807.
52. R. O'Hagan, M. Chalfie, and M. B. Goodman (2005) The MEC-4 DEG/ENaC channel of *C. elegans* touch receptor neurons transduces mechanical signals. *Nature Neurosci.* **8**: 43-50.
53. B. Lehner, A. Calixto, C. Crombie, J. Tischler, A. Fortunato, M. Chalfie, and A. G. Fraser (2006) Loss of LIN-35, the *Caenorhabditis elegans* ortholog of the tumor suppressor p105Rb, results in enhanced RNA interference. *Genome Biology* **7:** R4 doi:10.1186/gb-2006-7-1-r4
54. T. B. Huber, B. Schermer, R. U. Müller, M. Höhne, M. Bartram, A. Calixto, H. Hagmann, C. Reinhardt, F. Koos, K. Kunzelmann, E. Shirokova, D. Krautwurst, C. Harteneck, M. Simons, H. Pavenstädt, D. Kerjaschki, C. Thiele, G. Walz, M. Chalfie, and T. Benzing (2006) Podocin and MEC-2 bind cholesterol to regulate the activity of associated ion channels. *Proc. Natl. Acad. Sci. USA* **103**:17079-17086.

55. D. Chelur and M. Chalfie (2007) Targeted cell killing by reconstituted caspases. *Proc. Natl. Acad. Sci. USA* **104**: 2283-2288.
56. A. Bounoutas, R. O'Hagan, and M. Chalfie (2009) The multipurpose 15-protofilament microtubules in *C.elegans* have specific roles in mechanosensation. *Curr. Biol.* **19**: 1362-1367.
57. A. Bounoutas, Q. Zheng, M. L. Nonet, and M. Chalfie (2009) *mec-15* encodes an F-box protein required for touch receptor neuron mechanosensation, synapse formation, and development. *Genetics* **183**: 607-617.
58. Calixto, C. Ma, and M. Chalfie (2010) Conditional Gene Expression and RNAi Using MEC-8-Dependent Splicing in *C. elegans*. *Nature Meth.* **7**: 407-411.
59. Calixto, D. Chelur, I. Topalidou, X. Chen, and M. Chalfie (2010) Enhanced neuronal RNAi in *C. elegans* using SID-1. *Nature Meth.* **7**: 554-559.
60. Bounoutas, J. Kratz, L. Emtage, C. Ma, K. C. Q. Nguyen, and M. Chalfie (2011) Microtubule depolymerization in *C. elegans* touch receptor neurons reduces gene expression through a p38 MAPK pathway. *Proc. Natl. Acad. Sci. USA* **108**: 3982-3927.
61. Topalidou, A. van Oudenaarden, and M. Chalfie (2011) The *C. elegans aristaless/Arx* gene *alr-1* restricts variable gene expression. *Proc. Natl. Acad. Sci. USA* **108**: 4063-4068.
62. J. Árnadóttir, R. O'Hagan, Y. Chen, M. B. Goodman, and M. Chalfie (2011) The DEG/ENaC protein MEC-10 regulates the transduction channel complex in *C. elegans* touch receptor neurons. *J. Neurosci.* **31**: 12695-12704.
63. Topalidou and M. Chalfie (2011) Shared gene expression in distinct neurons expressing common selector genes. *Proc. Natl. Acad. Sci. USA* **108**:19258-19263.
64. Topalidou, C. Keller, N. Kalebic, K. C. Nguyen, H. Somhegyi, K. A. Politi, P. Heppenstall, D. H. Hall, and M. Chalfie (2012) Genetically separable functions of the MEC-17 tubulin acetyltransferase affect microtubule organization. *Curr. Biol.* **22**: 1057-1065.
65. M. Doitsidou, N. Flames, I. Topalidou, N. Abe, T. Felton, L. Remesal, T. Popovitchenko, R. Mann, M. Chalfie, and O. Hobert (2013) A combinatorial regulatory signature controls terminal differentiation of the dopaminergic nervous system in *C. elegans*. *Genes Develop.* ***15:*** 1391-1405.
66. C. Zheng, S. Karimzadegan, V. Chiang, and M. Chalfie (2013) Histone methylation restrains the expression of subtype-specific genes during terminal neuronal differentiation in *Caenorhabditis elegans*. *PLoS Genetics* **9**: e1004017.
67. E.-M. Schurek, L.A. Völker, J. Tax, T. Lamkemeyer, M.M. Rinschen, D. Ungrue, J.E. Kratz, III, L. Sirianant, K. Kunzelmann, M. Chalfie, B. Schermer, T. Benzing, and M. Höhne, (2014) A disease-causing mutation illuminates protein membrane topology of the kidney-expressed PHB domain protein podocin. J. Biol. Chem. **289**: 11262-11271.
68. X. Chen and M. Chalfie (2014) Modulation of *C. elegans* touch sensitivity is integrated at multiple levels. *J. Neurosci.* **34**: 6522-6536.
69. X. Chen and M. Chalfie (2015) Regulation of mechanosensation in *C. elegans* through ubiquitination of the MEC-4 mechanotransduction channel. *J. Neurosci.* **35**: 2200-2212.
70. X. Chen, M. Diaz Cuadros, and M. Chalfie (2015) Identification of non-viable genes affecting touch sensitivity in *C. elegans* using neuronally-enhanced feeding RNAi. *G3* **5**: 467-475.
71. M. Kelley, J. Yochem, M. Krieg, A. Calixto, M. G. Heiman, A. Kuzmanov, V. Meli, M. Chalfie, M. B. Goodman, S. Shaham, A. Frand, and D. S. Fay (2015) FBN-1, a fibrillin-related protein, is required for resistance of the epidermis to mechanical deformation during *C. elegans* embryogenesis. *eLife* **4**: e06565.
72. Y. Chen, S. Bharill, E. Y. Isacoff, and M. Chalfie (2015) Subunit composition of a DEG/ENaC mechanosensory channel of *C. elegans*. *Proc. Natl. Acad. Sci. USA* **112**:11690-11695.
73. C. Zheng, M. Diaz-Cuadros, and M. Chalfie (2015) Hox genes promote neuronal subtype diversification through posterior induction in *Caenorhabditis elegans*. *Neuron* **88**: 514-527.
74. C. Zheng, M. Diaz-Cuadros, and M. Chalfie (2015) Dishevelled attenuates the repelling activity of Wnt signaling during neurite outgrowth in *Caenorhabditis elegans*. *Proc. Natl. Acad. Sci. USA* **112**: 13243-13248.
75. Y. Chen, S. Bharill, E. Y. Isacoff, and M. Chalfie (2015) MEC-10 and MEC-19 reduce the neurotoxicity of the MEC-4(d) DEG/ENaC channel in *C. elegans*. *G3*, in press.
76. C. Zheng, F. Q. Jin, and M. Chalfie (2015) Hox proteins act as transcriptional guarantors to ensure terminal differentiation. *Cell Reports* **13**: 1-10.

Reviews

1. J.A. Zadunaisky, M.A. Lande, M. Chalfie, and A.H. Neufeld (1973) Ion pumps in the cornea and their stimulation by epinephrine and cyclic-AMP. *Exp. Eye Res.* **15**: 557-584.
2. R.L. Perlman and M. Chalfie (1977) Catecholamine release from the adrenal medulla. *Clinics Endocrinol. Metab.* **6**: 551-576.
3. M. Chalfie (1982) Microtubule structure in *Caenorhabditis elegans* neurons. *Cold Spring Harb. Symp. Quant. Biol.* **46**: 255-261.
4. M. Chalfie (1984) Genetic analysis of nematode nerve cell differentiation. *Bioscience* **34**: 295-299.
5. M. Chalfie (1984) Neuronal development in *Caenorhabditis elegans*. *Trends Neurosci.* **7**: 197-202.
6. M. Chalfie, E. Dean, E. Reilly, K. Buck, and J.N. Thomson (1986) Mutations affecting microtubule structure in *Caenorhabditis elegans*. *J. Cell Sci. Suppl.* **5**: 257-271.
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9. M. Chalfie (1990) Neuronal differentiation in *Caenorhabditis elegans*: A case study of genetic and molecular analysis. *J. Am. Zool.* **30**: 531-543.
10. H.R. Horvitz and M. Chalfie (1991) Implications of nematode neuronal cell death for human neurological disorders. in *Neurodegenerative Disorders. Mechanisms and Prospect for Therapy*, D.L. Price, H. Thoenen, and A.J. Aguayo, eds. John Wiley and Sons, Chichester, pp. 5-19.
11. C. Savage and M. Chalfie (1991) Genetic aspects of microtubule biology in the nematode *Caenorhabditis elegans*. *Cell Motil. Cytoskel.* **18**: 159-163.
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13. M. Driscoll and M. Chalfie (1992) Developmental and abnormal cell death in *C. elegans*. *Trends Neurosci.* **15**: 15-19.
14. M. Chalfie (1993) Homeobox genes in *Caenorhabditis elegans*. *Curr. Opin. Genetics* **3**: 275-277.
15. M. Chalfie (1993) Touch receptor development and function in *Caenorhabditis elegans*. J. Neurobiol. **24**: 1433-1441.
16. A. Duggan and M. Chalfie (1995) Control of neuronal development in *Caenorhabditis elegans*. *Curr. Opin. Neurobiol.* **5**: 6-9.
17. M. Chalfie (1995) The differentiation and function of the touch receptor neurons of *Caenorhabditis elegans*. in *Progress in Brain Research, vol. 105*, A.C.H. Yu, L.F. Eng, K.J. McMahan, H. Shulman, E.M. Shooter, and A. Studin (eds.), Elsevier Science BV, pp. 179-182.
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19. M. Chalfie and E. Jorgensen (1998) *C. elegans* neuroscience: genetics to genome. *Trends Genet.* **14**: 506-512.
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21. G. G. Ernstrom and M. Chalfie (2002) Genetics of sensory mechanotransduction. *Ann. Rev. Genetics* **36**: 411-453.
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24. M. Chalfie (2009) Neurosensory mechanotransduction. *Nature Rev. Molec. Cell Biol.* **10**: 44-52.
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