

*curriculum vitae*

## DAVID PAUL COREY

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**BIRTH DATE:** May 9, 1951

**BIRTHPLACE:** Boston, Massachusetts

**EDUCATION:**

1980        PhD in Neurobiology  
              California Institute of Technology, Pasadena, CA

1974        BA in Physics  
              Amherst College, Amherst, MA

**PROFESSIONAL EXPERIENCE:**

1984-        Harvard Medical School, Boston, MA  
              1984 Assistant Professor of Neuroscience  
              1990 Associate Professor of Neuroscience  
              1996 Professor of Neurobiology  
              2005-6 Acting Chair, Department of Neurobiology  
              2007-8 Interim Chair, Department of Neurobiology

1984-        Howard Hughes Medical Institute  
              1984 Associate Investigator  
              1996 Investigator

1984-2002    Massachusetts General Hospital, Boston, MA  
              1984 Assistant Physiologist, Department of Neurology  
              1990 Associate Neurobiologist, Department of Neurology  
              1996 Neurobiologist, Departments of Neurology and Neurosurgery

1980-1984    Yale University School of Medicine, New Haven, CT  
              1980 Postdoctoral Fellow with Charles F. Stevens, Department of Physiology  
              1984 Assistant Professor, Section of Molecular Neurobiology

1975-1980    California Institute of Technology, Pasadena, CA  
              Graduate Student with A. James Hudspeth, Neurobiology

## SERVICE POSITIONS:

- 2009 Molecular Biology of Hearing and Deafness Meeting, Organizing Committee Chair
- 2008 *Current Opinion in Neurobiology—Sensory Systems*, Co-Editor
- 2008 Force-Gated Channels Meeting, Janelia Farm, Co-Organizer
- 2007- Harvard University NeuroScience Retreat, Organizer
- 2006- 2009 Association for Research in Otolaryngology, Program Committee
- 2005-2007 Biophysical Society, Awards Committee
- 2004-2006 Exploratorium, San Francisco, *Listening* Advisory Committee
- 2004-2008 University of Maryland College of Life Sciences, Board of Visitors
- 2001- Faculty of 1000, Section Head, Sensory Systems
- 2000- Harvard Medical School Center for Hereditary Deafness, Co-Director
- 1999-2005 *Journal of the Association for Research in Otolaryngology*, Associate Editor
- 1997-2001 National Institute on Deafness and Other Communication Disorders, Advisory Council
- 1997-2001 Biophysical Society, Council
- 1995-1997 Society of General Physiologists, Council
- 1996 *Current Opinion in Neurobiology—Sensory Systems*, Co-Editor
- 1991 Society of General Physiologists 45th Annual Symposium, Organizer
- 1989-1995 *Journal of Neurophysiology*, Associate Editor
- 1986-1991 *Journal of Neuroscience*, Associate Editor
- 1984-1989 Society for Neuroscience Program Committee; Chairman, 1989
- 1981-1983 Cold Spring Harbor Course in Single-Channel Recording, Instructor and Director

## HONORS:

- 2010 F.C. MacIntosh Lectureship Award, McGill University
- 2005 John Karling Distinguished Lecture, Purdue University
- 2004 Excellence in Teaching Award, Harvard Medical School
- 2004 University Lecturer, University of Texas Southwestern
- 2003 Hille Lecture, University of Washington
- 2000 A. Clifford Barger Excellence in Mentoring Award, Harvard Medical School
- 1999 Mirmelstein-Kresge Award for Excellence in Hearing Science
- 1996 Young Investigator Award, Biophysical Society
- 1984 Alfred P. Sloan Research Fellowship
- 1978 Intra-Science Research Foundation Prize

## PROFESSIONAL ORGANIZATIONS:

- Association for Research in Otolaryngology
- American Society for Cell Biology
- American Association for the Advancement of Science
- Biophysical Society
- Society for Neuroscience

**Research Papers**  
(most recent first)

79. Lin, S-Y., Vollrath, M.A., Chae, S., Hopkins, N. and **Corey, D.P.** Pinball Wizard, a deafness and blindness gene in zebrafish, encodes a novel vesicle protein essential for synaptic transmission. (in review)
78. Christensen, A.P. and **Corey, D.P.** The outer pore and selectivity filter of TRPA1. (in review)
77. Karavitaki, K.D. and **Corey, D.P.** (2010) Sliding adhesion confers coherent motion to hair cell stereocilia and parallel gating to transduction channels. *J. Neurosci.* (in press)
76. Sotomayor, M., Weihofen, W.A., Gaudet, R. **Corey, D.P.** (2010) Structural determinants of cadherin-23 function in hearing and deafness. *Neuron* 66:85-100.
75. Brierley, S.M, Hughes, P.A., Page, A.J., Kwan, K.Y., Martin, C.M., O'Donnell, T.A., Cooper, N.J., Harrington, A.M., Adam, B., Liebrechts, T., Holtmann, G., **Corey, D.P.**, Rychkov, G.Y. and Blackshaw, L.A. (2009) The ion channel TRPA1 is required for normal mechanosensation and is modulated by algogenic stimuli. *Gastroenterol.* 137:2084-2095.
74. Tannous, B.A., Christensen, A.P., Pike, L., Wurdinger, T., Perry, K.F., Saydam, O., Jacobs, A.H., García-Añoveros, J., Weissleder, R., Sena-Esteves, M., **Corey, D.P.** and Breakefield, X.O. (2009) Mutant sodium channel for tumor therapy. *Molecular Therapy* 17:810-819.
73. Kwan, K.Y., Glazer, J.M., **Corey, D.P.**, Rice, F.L. and Stucky, C.L. (2009) TRPA1 modulates mechanotransduction in cutaneous sensory neurons. *J Neurosci.* 29:4808-4819.
72. Macpherson, L.J., Xiao, B., Kwan, K.Y., Petrus, M.J., Dubin, A.E., Hwang, S., Cravatt, B., **Corey, D.P.** and Patapoutian, A. (2007) An ion channel essential for sensing chemical damage. *J Neurosci.* 27:11412-11415.
71. Scheffer, D., Sage, C., **Corey, D.P.** and Pingault, V. (2007) Gene expression profiling identifies Hes6 as a transcriptional target of ATOH1 in cochlear hair cells. *FEBS Letters* 581:4651-4656.
70. Scheffer, D., Sage, C., Plazas, P.V., Huang, M., Zhang, D-S., Chen, Z-Y., Elgoyhen, A.B., **Corey, D.P.** and Pingault, V. (2007) The  $\alpha 1$  subunit of nicotinic acetylcholine receptors in the inner ear: Transcriptional regulation by ATOH1 and co-expression with the  $\gamma$  subunit in hair cells. *J. Neurochem* 103: 2651-2664.
69. Sage, C., Huang, M., Vollrath, M.A., Brown, M.C., Hinds, P.W., **Corey, D.P.**, Vetter, D.E. and Chen, Z-Y. (2006) Essential role of retinoblastoma protein in mammalian hair cell development and hearing. *Proc Natl. Acad. Sci. USA* 103:7345-7350.
68. Kwan, K.Y, Allchorne, A.J., Vollrath, M.A., Christensen, A.P., Zhang, D-S., Woolf, C.J., **Corey, D.P.** (2006) TRPA1 contributes to cold, mechanical, and chemical nociception but is not essential for hair-cell transduction. *Neuron* 50:277-289.
67. Kock, N., Naismith, T.V., Boston, H.E., Ozelius, L.J., **Corey, D.P.**, Breakefield, X. O. and Hanson P.I (2006) Effects of genetic variations in the dystonia protein torsinA: Identification of polymorphism at residue 216 as protein modifier. *Human Molecular Genetics* 15:1355-1364.
66. Cheung, E. L-M. and **Corey, D.P.** (2006).  $Ca^{2+}$  changes the force sensitivity of the hair-cell transduction channel. *Biophysical Journal* 90: 124-139.

65. Sotomayor, M., **Corey, D.P.** and Schulten, K. (2005) In search of the hair-cell gating spring: Elastic properties of ankyrin and cadherin repeats. *Structure* 13: 669-682.
64. Sage, C., Huang, M., Karimi, K., Gutierrez, G., Vollrath, M.A., Zhang, D-S., García-Añoveros, J., Hinds, P.W., Corwin, J.T., **Corey, D.P.** and Chen, Z-Y. (2005) Proliferation of functional hair cells *in vivo* in the absence of the retinoblastoma protein. *Science* 307:1114-8
63. **Corey, D.P.**, Garcia-Anoveros, J., Holt, J.R., Kwan, K.Y., Lin, S-Y., Vollrath, M.A., Amalfitano, A., Cheung, E.L-M., Derfler, B.H., Duggan, A., Géléoc, G.S.G., Gray, P. A., Hoffman, M.P., Rehm, H.L., Tamasauskas, D., Zhang, D-S. (2004) TRPA1 is a candidate for the mechanosensitive transduction channel of vertebrate hair cells. *Nature* 432:723-30.
62. **Kamm, C., Boston, H., Hewett, J., Wilbur, J., Corey, D.P., Hanson, P.I., Ramesh, V., Breakefield, X.O.** (2004) The early onset dystonia protein torsinA interacts with kinesin light chain 1. *J Biol Chem.* 279:19882-92.
61. Liu, X.Z., Ouyang, X.M., Xia, X.J., Zheng, J., Pandya, A., Li, F. , Du, L.L., Welch, K.O., Petit, C., Smith, R.J.H., Webb, B.T., Yan, D., Arnos, K.S., **Corey, D.P.**, Dallos, P., Nance W.E., Chen Z-Y. (2003) Prestin, a cochlear motor protein, is defective in non-syndromic hearing loss. *Human Molecular Genetics* 12:1155-1162.
60. Meyers, J.R., MacDonald, R.B., Duggan, A., Lenzi, D.P., Standaert, D.G., Corwin, J.T., and **Corey, D.P.** (2003) Lighting up the senses: FM1-43 loading of sensory cells through nonselective ion channels. *J. Neurosci.* 23:4054-4065
59. Rehm, H. L., Zhang, D-S., Brown, M. C., Burgess, B., Halpin, C., Berger, W., Morton, C. C., **Corey, D.P.** and Chen, Z-Y. (2002) Vascular system defects and sensorineural deafness in a mouse model of Norrie disease *J. Neurosci.* 22:4286-4292
58. Holt, J. R., Gillespie, S. K. H., Provance, D. W., Shah, K., Shokat, K. M., **Corey, D. P.**, Mercer, J. A. and Gillespie, P. G. (2002) A chemical-genetic strategy demonstrates myosin 1c mediates sensory adaptation in hair cells. *Cell* 108:371-381
57. Chen, Z-Y. and **Corey, D.P.** (2002) An inner ear gene expression database. *J. Assoc. Res. Otolaryngol.* 3:140-148.
56. Duggan, A., García-Añoveros, J. and **Corey D.P.** (2001) The PDZ domain protein PICK1 and the sodium channel BNaC1 interact and localize at mechanosensory terminals of DRG neurons and dendrites of central neurons *J. Biol. Chem.* 277: 5203
55. Gillespie, P.G., Albanesi, J.P., Bahler, M., Bement, W.M., Berg, J. S., Burgess, D.R., Burnside, B., Cheney, R.E., **Corey, D.P.**, Coudrier, E., de Lanerolle, P., Hammer, J.A., Hasson, T., Holt, J.R., Hudspeth, A.J., Ikebe, M., Kendrick-Jones, J., Korn, E.D., Li, R., Mercer, J.A., Milligan, R.A., Mooseker, M.S., Ostap, E.M., Petit, C., Pollard, T.D., Sellers, J.R., Soldati, T. and Titus, M.A. (2001) Myosin-I nomenclature. *J. Cell Biol.* 155:703-704.
54. Leung, J.C, Klein, C., Friedman, J., Vieregge, P., Jacobs, H., Doheny, D., Kamm, C., DeLeon, D., Pramstaller, P.P., Penney, J.B., Eisengart, M., Jankovic, J., Gasser, T., Bressman, S.B., **Corey, D.P.**, Kramer, P., Brin, M.F., Ozelius, L.J. and Breakefield, X.O. (2001) Novel mutation in the TOR1A (DYT1) gene in atypical, early onset dystonia and polymorphisms in dystonia and early onset parkinsonism. *Neurogenetics* 3:133-143.

53. García-Añoveros, J., Samad, T.A., Žuvela-Jelaska, L., Woolf, C.J., and **Corey, D.P.** (2001) Transport and localization of the DEG/ENaC ion channel BNaC1 $\alpha$  to peripheral mechanosensory terminals of dorsal root ganglia neurons *J. Neurosci.* 21:2678-86.
52. Chen, Z-Y., Hasson, T., Zhang, D-S., Schwender, B.J., Derfler, B.H., Mooseker, M.S. and **Corey, D.P.** (2001) Myosin VIIb, a novel unconventional myosin, is a constituent of microvilli in transporting epithelia. *Genomics* 72:285-296.
51. Berg, J.S., , Derfler, B.H., Pennisi, C.M., **Corey, D.P.** and Cheney, R. E. (2000) Myosin-X, a novel myosin with pleckstrin homology domains, associates with regions of dynamic actin. *J. Cell Sci.* 113:3439-3451.
50. Ozelius, L.J., Page, C.E., Klein, C., Hewett, J.W., Mineta, M., Leung, J., Shalish, C., Bressman, S.B., de Leon, D., Brin, M.F., Fahn, S., **Corey, D.P.** and Breakefield, X.O. (1999) The TOR1A (DYT1) gene family and its role in early onset torsion dystonia. *Genomics* 62:377-84.
49. Liman, E.R., **Corey, D.P.** and Dulac, C. (1999) TRP2: A candidate transduction channel for mammalian pheromone sensory signaling. *Proc. Natl. Acad. Sci. USA* 96:5791-5796.
48. Derby, M.L., Sena-Esteves, M., Breakefield, X.O., and **Corey, D.P.** (1999) Gene transfer into the mammalian inner ear using HSV-1 and vaccinia virus vectors. *Hearing Research* 134:1-8.
47. Holt, J.R., Johns, D.C., Wang, S., Chen, Z-Y., Dunn, R.J., Marban, E. and **Corey, D.P.** (1999) Functional expression of exogenous proteins in mammalian sensory hair cells infected with adenoviral vectors. *J. Neurophysiol.* 81:1881-1888.
46. Garcia, J.A., Yee, A.G., Gillespie, P.G., and **Corey, D.P.** (1998) Localization of myosin-I $\beta$  near both ends of tip links in frog saccular hair cells. *J. Neurosci.* 18:8637-8647.
45. García-Añoveros, J., García, J.A., Liu, J-D., and **Corey, D.P.** (1998) The nematode degenerin UNC-105 forms ion channels that are activated by degeneration- or hypercontraction-causing mutations. *Neuron* 20: 1231-1241.
44. Holt, J.R., **Corey, D.P.** and Eatock, R.A. (1997) Mechanoelectrical transduction and adaptation in hair cells of the mouse utricle, a low-frequency vestibular organ. *J. Neurosci.* 17:8739-8748.
43. Ozelius, L.J., Hewett, J.W., Page, C.E., Bressman, S.B., Kramer, P.L., Shalish, C., de Leon, D., Brin, M.F., Raymond, D., **Corey, D.P.**, Fahn, S., Risch, N.J., Buckler, A.J., Gusella, J.F., Breakefield, X.O. (1997) The early-onset torsion dystonia gene (*DYT1*) encodes an ATP-binding protein. *Nature Genetics* 17:40-48.
42. Garcia-Anoveros, J., Derfler, B., Neville-Golden, J., Hyman, B.T. and **Corey, D.P.** (1997) BNaC1 and BNaC2 constitute a new family of human neuronal sodium channels related to degenerins and epithelial sodium channels. *Proc Natl Acad Sci U S A* 94:1459-1464.
41. Hasson, T., Gillespie, P.G., Garcia, J.A., MacDonald, R.B., Zhao, Y-d., Yee, A.G., Mooseker, M.S. and **Corey, D.P.** (1997) Unconventional myosins in inner-ear sensory epithelia *J. Cell Biol.* 137:1287-1307.
40. Weston, M.D., Kelley, P.M., Overbeck, L.D., Wagenaar, M., Orten, D.J., Hasson, T., Chen, Z-Y., **Corey, D.P.**, Mooseker, M., Sumegi, J., Cremers, C., Moller, C., Jacobsen, S.G., Gorin, M.B., and Kimberling, W.J. (1996) Myosin VIIA mutation screening in 189 Usher syndrome type 1 patients. *Am. J. Human Genetics* 59:1074-1083.

39. Kelley, P.M., Weston, M.D., Chen, Z-Y., Orten, D.J., Hasson, T., Overbeck, L.D., Pinnt, J., Talmadge, C., Ing, P., Mooseker, M.S., **Corey, D.P.**, Sumegi, J. and Kimberling, W.J. (1997) The genomic structure of the gene defective in Usher syndrome type 1b (MYO7A). *Genomics* 40(1):73-79.
38. Chen, Z-Y., Hasson, T., Kelley, P.M., Schwender, B.J., Schwartz, M.F., Ramakrishnan, M., Kimberling, W.J., Mooseker, M.S. and **Corey, D.P.** (1996) Molecular cloning and domain structure of human myosin-VIIa, the gene product defective in Usher syndrome 1B. *Genomics* 36:440-448.
37. Hasson, T., Skowron, J.F., Gilbert, D.J., Avraham, K.B., Perry, W.L., Bement, W.M. Anderson, B.L., Sherr, E.H., Chen, Z-Y., Greene, L.A., Ward, D.C., **Corey, D.P.**, Mooseker, M.S., Copeland, N.G., and Jenkins, N.A. (1996) Mapping of unconventional myosins in mouse and man. *Genomics* 36:431-439.
36. Grosson, C.L.S., Cannon, S.C, **Corey, D.P.**, and Gusella, J.F. (1996) Sequence of the voltage-gated sodium channel  $\beta_1$ -subunit in wild-type and in *quivering* mice. *Molecular Brain Research* 42:222-226.
35. Liman, E.R. and **Corey, D.P.** (1996) Electrophysiological characterization of chemosensory neurons from the mouse vomeronasal organ. *J. Neurosci.* 16:4625-4637.
34. Denk, W., Holt, J.R., Shepherd, G. M. G. and **Corey, D.P.** (1995) Localization of hair-cell transduction channels at both ends of tip links shown by imaging calcium in single stereocilia. *Neuron* 15:1311-1321.
33. Hasson, T., Heintzelman, M.B., Santos-Sacchi, J., **Corey, D.P.** and Mooseker, M.S. (1995) Expression in cochlea and retina of myosin-VIIa, the gene product defective in Usher syndrome type 1B. *Proc. Natl. Acad. Sci. USA* 92:9815-9819
32. Chen, H., Thalmann, I., Adams, J.C., Avraham, K.B., Copeland, N.G., Jenkins, N.A., Beier, D.R., **Corey, D.P.**, Thalmann, R., and Duyk, G.M. (1995) cDNA cloning, tissue distribution, and chromosomal localization of *Ocp2*, a gene encoding a putative transcription-associated factor predominantly expressed in the auditory organs. *Genomics* 27:389-398.
31. Solc, C.K., Derfler, B.H., Duyk, G.M. and **Corey, D.P.** (1994) Molecular cloning of myosins from the bullfrog saccular macula: A candidate for the adaptation motor. *Auditory Neurosci* 1:63-75.
30. Shepherd, G.M.G. and **Corey, D.P.** (1994) The extent of adaptation in bullfrog saccular hair cells. *J. Neurosci.* 14:6217-6229.
29. **Corey, D.P.** and Howard, J. (1994) Models for channel gating with compliant states. *Biophys J.* 66:1254-1257.
28. Cannon, S.C., Brown, R.H. and **Corey, D.P.** (1993) Theoretical reconstruction of myotonia and paralysis caused by incomplete inactivation of sodium channels. *Biophys J.* 65:270-288.
27. Cannon, S.C. and **Corey, D.P.** (1993) Loss of sodium channel inactivation by anemone toxin (ATX II) mimics the mytonic state in hyperkalemic periodic paralysis. *J. Physiol.* 466:501-520.
26. Assad, J.A. and **Corey, D.P.** (1992) An active motor model for adaptation by vertebrate hair cells. *J. Neurosci.* 12:3291-3309.
25. Assad, J.A., Shepherd, G.M.G., and **Corey, D.P.** (1991) Tip-link integrity and mechanical transduction in vertebrate hair cells. *Neuron* 7:985-994.
24. Cannon, S.C., Brown, R.H., and **Corey, D.P.** (1991) A sodium channel defect in hyperkalemic periodic paralysis: Potassium-induced failure of inactivation. *Neuron* 6:619-626.

23. Shepherd, G.M.G., **Corey, D.P.**, and Block, S.M. (1990) Actin cores of hair-cell stereocilia support myosin motility. *Proc. Natl. Acad. Sci. USA* 87:8627-8631.
22. Barres, B.A., Koroshetz, W.J., Chun, L.L.Y., and **Corey, D.P.** (1990) Ion channel expression by white matter glia: The type-1 astrocyte. *Neuron* 5:527-544.
21. Barres, B.A., Koroshetz, W.J., Swartz, K.J., Chun, L.L.Y., and **Corey, D.P.** (1990) Ion channel expression by white matter glia: The O-2A glial progenitor cell. *Neuron* 4:507-524.
20. Barres, B.A., Chun, L.L.Y., and **Corey, D.P.** (1990) Reassessment of membrane properties in a classic glial preparation. In *Differentiation and Functions of Glial Cells*. Alan R. Liss, pp. 213-221.
19. Barres, B.A., Chun, L.L.Y., and **Corey, D.P.** (1989) Calcium current in cortical astrocytes: Induction by cAMP and neurotransmitters and permissive effect of serum factors. *J. Neurosci.* 9: 3169-3175.
18. Barres, B.A., Chun, L.L.Y., and **Corey, D.P.** (1989) Glial and neuronal forms of the voltage-dependent sodium channel: Characteristics and cell-type distribution. *Neuron* 2: 1375-1388.
17. Shepherd, G.M.G., Barres, B.A., and **Corey, D.P.** (1989) "Bundle blot" purification and initial protein characterization of hair-cell stereocilia. *Proc. Natl. Acad. Sci. USA* 86: 4973-4977.
16. Assad, J.A., Hacohen, N., and **Corey, D.P.** (1989) Voltage dependence of adaptation and active bundle movement in bullfrog saccular hair cells. *Proc. Natl. Acad. Sci. USA* 86: 2918-2922.
15. Hacohen, N., Assad, J.A., Smith, W.J., and **Corey, D.P.** (1989) Regulation of tension on hair-cell transduction channels: Displacement and calcium dependence. *J. Neurosci.* 9: 3988-3997.
14. Barres, B.A., Silverstein, B.E., **Corey, D.P.**, and Chun L.L.Y. (1988) Immunological, morphological, and electrophysiological variation among retinal ganglion cells purified by panning. *Neuron* 1: 791-803.
13. Barres, B.A., Chun, L.L.Y., and **Corey, D.P.** (1988) Ion channel expression by white matter glia: I. Type 2 astrocytes and oligodendrocytes. *Glia* 1: 10-30.
12. Eatock, R.A., **Corey, D.P.**, and Hudspeth, A.J. (1987) Adaptation of mechano-electrical transduction in hair cells of the bullfrog's sacculus. *J. Neurosci.* 7:2821-2836.
11. Weyler, W., Powell, J., Hsu, Y.-P.P., Chen, S., **Corey, D.P.**, Utterback, M., Titlow, C., and Breakefield, X.O. (1987) Comparison of partial amino acid sequences deduced from the nucleotide sequence of a bovine adrenal monoamine oxidase cDNA clone to amino acid sequences obtained from bovine liver monoamine oxidase type B. *Proceedings of the Ninth Symposium on Flavins and Flavoproteins*. 725-728
10. **Corey, D.P.**, Dubinsky, J.M., and Schwartz, E.A. (1984) The calcium current in inner segments of rods from the salamander (*Ambystoma tigrinum*) retina. *J. Physiol.* 354:557-575.
9. Aldrich, R.W., **Corey, D.P.**, and Stevens, C.F. (1983) A reinterpretation of mammalian sodium channel gating based on single channel recording. *Nature* 306:436-441.
8. **Corey, D.P.** and Stevens, C.F. (1983) Science and technology of patch-recording electrodes. In: *Single-Channel Recording* Eds. Bert Sakmann and Erwin Neher. Plenum Publishing Corp., New York. pp 53-68.
7. **Corey, D.P.** and Hudspeth, A.J. (1983) Kinetics of the receptor current in bullfrog saccular hair cells. *J. Neurosci.* 3:962-976.

6. **Corey, D.P.** and Hudspeth, A.J. (1983) Analysis of the microphonic potential of the bullfrog's sacculus. *J. Neurosci.* 3:942-961.
5. **Corey, D.P.** and Hudspeth, A.J. (1980) Mechanical stimulation and micromanipulation with piezoelectric bimorph elements. *J. Neurosci. Methods* 3:183-202.
4. **Corey, D.P.** and Hudspeth, A.J. (1979) Ionic basis of the receptor potential in a vertebrate hair cell. *Nature* 281:675-677.
3. **Corey, D.P.** and Hudspeth, A.J. (1979) Response latency of vertebrate hair cells. *Biophys. J.* 26:499-506.
2. Hudspeth, A.J. and **Corey, D.P.** (1978) Controlled bending of high-resistance glass microelectrodes. *Am. J. Physiol.* 234:c56-57.
1. Hudspeth, A.J. and **Corey, D.P.** (1977) Sensitivity, polarity, and conductance change in the response of vertebrate hair cells to controlled mechanical stimuli. *Proc. Natl. Acad. Sci. USA* 74:2407-2411.



## Other Papers from this Laboratory

11. Karashima, Y., Talavera, K., Everaerts, W., Janssens, A., Kwan, K.Y., Vennekens, R., Nilius, B., Voets, T. (2009) TRPA1 acts as a cold sensor in vitro and in vivo. *Proceedings of the National Academy of Sciences, USA* 106:1273-1278.
10. Liman, E.R. (2003) Regulation by voltage and adenine nucleotides of a Ca<sup>2+</sup>-activated cation channel from hamster vomeronasal sensory neurons. *J. Physiol.* 548:777-787.
9. Liman, E. (1996) Pheromone transduction in the vomeronasal organ. *Current Opinion in Neurobiology* 6:487-493.
8. Hayward, L.J., Brown, R.H. and Cannon, S.C. (1996) Inactivation defects caused by myotonia-associated mutations in the sodium channel III-IV linker. *J. Gen. Physiol.* 107:559-576.
7. Chen, C.C. and Cannon, S.C. (1995) Modulation of Na<sup>+</sup> channel inactivation by the  $\beta_1$  subunit: A deletion analysis. *Pflügers Arch* 431:186-195.
6. Cannon, S.C., Hayward, L.J., Beech, J., and Brown, R.H. (1995) Sodium channel inactivation is impaired in equine hyperkalemic periodic paralysis. *J. Neurophysiol.* 73: 1892-1899.
5. Cannon, S.C. (1994) Slow sodium channel inactivation need not be disrupted in the pathogenesis of myotonia and periodic paralysis. *Biophysical Journal* 66: 543-544.
4. Strittmatter, S.M., Cannon, S.C., Ross, E.M., and Fishman, M.C. (1993) GAP-43 augments G protein-coupled receptor transduction in *X. laevis* oocytes. *Proc. Nat. Acad. Sci.* 90: 5327-5331.
3. McClatchey, A.I., Cannon, S.C., and Gusella, J.F. (1993) The cloning and expression of a sodium channel  $\beta_1$ -subunit from human brain. *Human Molecular Genetics* 2: 745-749.
2. Cannon, S.C., McClatchey, A., and Gusella, J.F. (1993) Modification of the Na<sup>+</sup> current conducted by the rat skeletal muscle  $\alpha$  subunit by co-expression with a human brain  $\beta$  subunit. *Pflügers Archiv* 423: 155-157.
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## Chapters, Reviews and Commentaries

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