

## CURRICULUM VITAE

October 15, 2014

**Name:** Paul Albert Fuchs

**Webpages:** [http://www.hopkinsmedicine.org/otolaryngology/our\\_team/faculty/fuchs.html](http://www.hopkinsmedicine.org/otolaryngology/our_team/faculty/fuchs.html)  
<http://neuroscience.jhu.edu/PaulFuchs.php>

### Links:

National Public Radio – “Talk of the Nation/Science Friday”

“Hearing Loss Pill” 01/23/09

<http://www.npr.org/templates/story/story.php?storyId=99800024>

“Ear-splitting Sounds” 10/23/09

<http://www.npr.org/templates/story/story.php?storyId=114081451>

Carnegie Institute Washington, DC: Capital Science Evenings

<http://www.ciw.edu/events/lectures>

Institute for Basic Biomedical Sciences at Hopkins

[http://www.hopkinsmedicine.org/institute\\_basic\\_biomedical\\_sciences/about\\_us/scientists/paul\\_fuchs.html](http://www.hopkinsmedicine.org/institute_basic_biomedical_sciences/about_us/scientists/paul_fuchs.html)

[http://www.hopkinsmedicine.org/news/publications/headway/Headway\\_Fall\\_2009/The\\_Beauty\\_and\\_Biology\\_of\\_the\\_Inner\\_Ear](http://www.hopkinsmedicine.org/news/publications/headway/Headway_Fall_2009/The_Beauty_and_Biology_of_the_Inner_Ear)

[http://www.hopkinsmedicine.org/news/media/releases/Now\\_Hear\\_This](http://www.hopkinsmedicine.org/news/media/releases/Now_Hear_This)

[http://www.hopkinsmedicine.org/institute\\_basic\\_biomedical\\_sciences/news\\_events/articles\\_and\\_stories/hearing\\_deafness/20090](http://www.hopkinsmedicine.org/institute_basic_biomedical_sciences/news_events/articles_and_stories/hearing_deafness/20090)

[http://www.hopkinsmedicine.org/news/media/releases/Surviving\\_Dance\\_Club\\_Music\\_Noise\\_With\\_Hearing\\_Intact](http://www.hopkinsmedicine.org/news/media/releases/Surviving_Dance_Club_Music_Noise_With_Hearing_Intact)

**Birthplace:** St. Louis, Missouri

### Education:

1974	B.A. (Biology) Reed College, Portland, Oregon
1979	Ph.D. (Neurobiology) Stanford University
1979-1981	Postdoctoral Research Fellow, (J.G. Nicholls) Neurobiology Dept., Stanford, Univ., Stanford, CA.
1981-1983	Postdoctoral Research Fellow, (R. Fettiplace) Physiological

Lab., Cambridge University, Cambridge England.

**Academic appointments:**

1984-1990	Assistant Professor, Dept. of Physiology, Univ. Colorado School of Medicine, Denver, Colorado
1990-1995	Associate Professor, Dept. of Physiology, Univ. Colorado School of Medicine, Denver, Colorado
1995-date	Professor, Dept. Otolaryngology, Head- and Neck Surgery, Johns Hopkins, Baltimore, MD.
1995-date	Professor (joint), Dept. Biomedical Engineering, JHU.
1999-date	Professor (joint), Dept. Neuroscience, JHU.
2004-2012	Director of Research, Oto-HNS, JHU
2005-date	Co-Director, Center for Sensory Biology, JHU
2012 – date	Vice-chair (Research), Otolaryngology- HNS

**Awards, Fellowships and Honors:**

1974	Phi Beta Kappa, Reed College, Portland, Oregon
1975	National Science Foundation Predoctoral Fellowship
1977	Grass Foundation Fellowship, Marine Biological Laboratory, Woods Hole, MA
1979	National Science Foundation National Needs Postdoctoral Fellowship
1980	National Institute of Health Postdoctoral Fellowship
1981	NATO Postdoctoral Fellowship
1983	Wellcome Foundation Research Fellowship, Cambridge, England
1985	NIH Research Career Development Award
1986	March of Dimes, Basil O'Connor Research Award
1987	Medical School Teaching Award, U. Colorado
1992	Research Award - National Organization for Hearing Research.
1992	Medical School Teaching Award, U. Colorado
1993	Visiting Scientist, Kyoto, Tokushima and Sendai, Japan.
1993	Medical School Teaching Award, U. Colorado
1995	Medical School Teaching Award, U. Colorado
1995	Kaiser Permanente Teaching Award, U. Colorado Medical School.
1997	Grass Foundation Traveling Scientist Award
2004	the John E. Bordley Professorship in Otolaryngology/ Head and Neck Surgery, Johns Hopkins

2006	The A.R. Martin Lecturer, U. Colorado.
2007	Plenary Lecture, Chinese Society for Neuroscience
2007	Guest Professor, Southeast University Medical School, Nanjing, China
2012	Honorary Member, Argentine Society for Neuroscience

**Federal and International Advisory Positions:**

1987-1994	Ad hoc reviewer for National Science Foundation's Sensory Physiology, Neurobiology and Physiology Study Sections
1987-1994	Ad hoc reviewer, NIH Hearing Research Study Section
1992	Ad hoc reviewer for National Institute for Deafness and Communication Disorders (Program Project Site Visits)
1994-1995	Regular member, NIH Hearing Research Study Section
2000-date	<i>Ad hoc</i> reviewer, NIH Hearing Research Study Section
2003- 2008	Board of Scientific Counselors, National Institute for Deafness and Communication Disorders
2006- 2008	Chair, Board of Scientific Counselors, National Institute for Deafness and Communication Disorders
2008–date	Advisor, “Fondation Voir et Entendre”, Paris.
2014	Ad hoc, Board of Scientific Counselors, National Institute for Neurological Disease and Stroke, NIH

**Other Professional Activities:**

1986-1995	Member, Program in Neuroscience, University of Colorado School of Medicine, Denver, CO.
1987-1993	Director of Graduate Studies and Graduate Admissions, Physiology Dept., U. Colorado Sch. Med., Denver, CO.
1987-1995	Member, Medical Scientist Training Program, University of Colorado School of Medicine, Denver, CO.
1991-1993	Member, Medical Scientist Training Program Steering Committee, University of Colorado School of Medicine, Denver, CO.
1993-1995	Member, Curriculum Committee, University of Colorado School of Medicine, Denver, CO.
1993-1995	Member, Curriculum Review Committee, University of Colorado School of Medicine, Denver, CO.
1993-1995	Member, Program Committee of the Association for Research in Otolaryngology
1992-1995	Member, Neuroscience Program Curriculum Committee, University of Colorado Graduate School, Denver, CO.

1993-1995	Member, Advisory Committee, Neuroscience Program University of Colorado Graduate School, Denver, CO.
1997-1998	Professorial Promotion Subcommittee, Johns Hopkins University School of Medicine
2000-2009 2000-	Committee on Biomedical Engineering, Johns Hopkins Symposium organizer “Synaptic Function in Hearing and Balance”, Baltimore, Md.
2003-	Director, Research Core, Center for Hearing and Balance, Johns Hopkins University School of Medicine
2004-	Member, Physiology Chair Search Committee, Johns Hopkins
2005	Co-founder, the Center for Sensory Biology, Johns Hopkins
2006-2009	Associate Editor, <i>JARO</i>
2006	Symposium organizer “Sensory Biology” Baltimore, MD.
2007	Symposium organizer, Biophysical Society Annual Meeting
2007	Participant and Section Leader, Workshop at the Center for Scientific Review, National Institutes of Health, Bethesda
2007-2010	Council Member, Association for Research in Otolaryngology
2008	President, Association for Research in Otolaryngology
2010- date	Faculty of 1000
2010	Search Committee Member, Dean of the Krieger School of Arts and Sciences, Johns Hopkins University
2011-date	Director, T32-funded Otolaryngology residents’ research program
2013-2017	Course Director, “Biology of the Inner Ear” Marine Biological Laboratory, Woods Hole, MA.
1984-	Reviewer: <i>Brain Research, European Journal of Physiology, Hearing Research, Journal of Comparative Physiology, Journal of Neurophysiology, Journal of Neuroscience, Journal of Physiology (London), Nature, Neuron, Proceedings of the National Academy (USA), Proceedings of the Royal Society, (London), Public Library of Science, Science, etc.</i>

**Teaching experience:**

1974-1976	Teaching assistant, Human Biology, Stanford University, Stanford, CA.
1976-1979	Teaching assistant, The Human Nervous System, Anat.

	200, Stanford University, Stanford, CA.
1984-1995	Lecturer and laboratory instructor, Medical Physiology Phys. 5000, University of Colorado School of Medicine Denver, CO.
1984-1995	Lecturer, Medical Neurobiology IDPT 5004, University of Colorado School of Medicine, Denver, CO.
1985-1995	Lecturer and Course Director, Cellular Neurobiology University of Colorado Graduate School, Denver, CO.
1988-1995	Laboratory instructor, Laboratory Methods in Neuroscience NRSC 7656, University of Colorado Graduate School, Denver, CO.
1984-1993	Lecturer, Dental Physiology DSBS 5000, University of Colorado, Denver, CO.
1986-1995	Lecturer and laboratory instructor summer programs in minority and rural scholars enrichment, University of Colorado School of Medicine
1996- 2010	Lecturer, Structure and Function of the Auditory and Vestibular Systems, BME (580.625) JHU
1996- 2012	Laboratory instructor, Physiological Foundations for Biomedical Engineering JHU
1998- date	Lecturer, Introduction to Cellular and Molecular Neuroscience, JHU Graduate School
1999-2010	Co-director (w/K.Y. Wau), Sensory Physiology, JHU Graduate School
2001-2004	Lecturer, Physiological Foundations for BME
1999-date	Lecturer, Neuroscience and Cognition (ME:440.811), JHU Medical School
2008-date	Lecturer, Ethics in Biomedical Research
2009 –date	Founder and Co-director, Cellular and Molecular Biology of Sensation, Biology Department (080.322.01) JHU
2007-	Lecturer and instructor, The Biology of the Inner Ear, Marine Biology Laboratory, Woods Hole, MA
2010-	Neurobiology of Hearing (MEDS 5377, U. Conn. and U. Salamanca, Sp.)
2011-	Director and lecturer, Structure and Function of the Auditory and Vestibular Periphery, BME (580.625) JHU
2013-	Course Director and lecturer, The Biology of the Inner Ear, Marine Biology Laboratory, Woods Hole, MA

### **Students and trainees:**

1. Dr. A. Cameron Mann, 1985, medical student at University of Glasgow, now physician in Scotland.

2. Dr. Takatoshi Nagai, 1985-86, postdoctoral fellow, now Professor of Biology, Keio University School of Medicine, Tokyo, Japan.
3. Dr. Michael G. Evans, 1986-88, postdoctoral fellow, now Senior Lecturer, Keele University, Keele, England.
4. Dr. Bruce W. Murrow, 1987-1991. MD-PhD student at University of Colorado Medical School. Now adjunct faculty, Dept. Otolaryngology, U. Colorado.
5. Dr. Bernd H.A. Sokolowski, 1988-1990, postdoctoral fellow. Now Professor of Otolaryngology and Physiology, University of South Florida, Tampa, Florida.
6. Dr. Alastair McNiven, 1992-1994, postdoctoral fellow. Now Deputy Sheriff, Boulder County, Colorado.
7. Leisha M. Knize, 1993-1994, student worker. Physician, Denver, CO.
8. Christie A. Martinez, 1993-1995, student worker. Physician, Denver, CO.
9. Dr. Michael Zidanic, 1991-1997, postdoctoral fellow. Now employed in biotech.
10. Dr. Corinne Griguer, 1992-1995, postdoctoral fellow, now Associate Professor of Surgery, University of Alabama, Birmingham.
11. Dr. Ward A. Yuhas, 1993-1998, Ph.D. candidate, now employed in biotech.
12. Dr. Robin Michaels, 1994-1996, postdoctoral fellow / professional research assistant, now Associate Dean of Student Affairs and Admissions, Associate Professor of Biological Sciences, U. Minnesota Medical School in Duluth.
13. Dr. Jiang Guo-jian, 1994-1997, postdoctoral fellow, now Research Scientist, NIH.
14. Dr. Julia B. Yang, 1995-1997, postdoctoral fellow, now employed in biotech.
15. Dr. Hakim Hiel, 1996-date, postdoctoral fellow, now Senior Research Associate, Department of Otolaryngology-HNS, Johns Hopkins University School of Medicine.
16. Dr. Krishnan Ramanathan, 1996-date, Ph.D., Dept. Biomedical Engineering, Johns Hopkins University School of Medicine, Baltimore, MD. Pharmaceutical industry analyst.

17. Dr. Larry Lustig, 1997-1999, postdoctoral fellow, now Assoc. Professor and Director of Otolaryngology, Otolaryngology Head and Neck Surgery, UCSF.
18. Mr. Timothy Michael, 1997-2000, Research Assistant and M.S. candidate, Johns Hopkins University, now MBA, biotech.
19. Ramani Balu, 1998-2000, Master's candidate, Dept. Biomedical Engineering, Johns Hopkins University School of Medicine, Baltimore, MD, MD-PhD, Neurology Department, Case-Western Reserve University.
20. Dr. Elisabeth Glowatzki, 1998-2002, now Associate Professor, Department of Otolaryngology-HNS, Johns Hopkins University School of Medicine,.
21. Dr. Takehito Yamamoto, 1998-2000, postdoctoral fellow. Now Assistant Professor of Otolaryngology, Fukui University School of Medicine, Japan.
22. Dr. Huashan Peng, 1999-2002, postdoctoral fellow, now Research Associate, McGill U.
23. Dr. Keith Duncan, 1999-2003, postdoctoral fellow, now Associate Professor of Otolaryngology, the Kresge Institute, University of Michigan.
24. Dr. Tonya Matthews, 1999-2005, Ph.D., Department Biomedical Engineering, Johns Hopkins University School of Medicine, Baltimore, MD. Now President and CEO Michigan Science Center, Detroit MI.
25. Dr. Suchitra Parameshwaran Iyer, 2001-2004, postdoctoral fellow, now science writer.
26. Dr. Maria Lioudyno, 2002-2003, postdoctoral fellow, now Associate Professor, UC Irvine.
27. Dr. Jee Hyun Kong, 2003- 2009, Ph.D. Department of Neuroscience, Johns Hopkins. Postdoctoral fellow, Stanford University, now home-maker.
28. Dr. Seung-hwan Lee, 2004 – postdoctoral fellow. Now Associate Professor, Otolaryngology-Head and Neck Surgery, Hanyang University, Seoul, Korea
29. Dr. Lisa Grant, 2006-12/2007 – postdoctoral fellow, now science writer.
30. Dr. Eric Wersinger, 2007 – postdoctoral fellow, now employed in biotech, Montpellier, France.

31. Dr. Catherine Weisz, 2007 – Ph.D., Department of Neuroscience, Johns Hopkins, now postdoctoral fellow University of Pittsburgh.
32. Dr. Gi Jung Im, 2010 – postdoctoral fellow, now Associate Professor of Otolaryngology-Head and Neck Surgery, Korea University, Seoul, Korea.
33. Ms. Chang Liu, 2010 – doctoral student in Neuroscience, Johns Hopkins
34. Mr. Stephen Zachary, 2010 – doctoral student in Neuroscience, Johns Hopkins
35. Dr. Kevin Rohmann, 2011 – postdoctoral fellow
36. Dr. Pankhuri Vyas, 2012 – postdoctoral fellow

**Professional Societies:**

1979	Society for Neuroscience
1987	Biophysical Society
1988	Association for Research in Otolaryngology
1990	The Physiological Society of Great Britain, Foreign Member
1999	The Society of General Physiologists

**Research Grants:**

1983-1984	"Hair cell differentiation in the chick's cochlea" P.A. Fuchs, P.I.; Total direct costs - \$14,265 BRG Committee, U. Colorado Health Sciences Center BRSG-05357, Biomedical Research Grant Program, NIH
1984-1987	"Electrical development of cochlear hair cells" P.A. Fuchs, P.I.; Total direct costs - \$168,368 NINCDS NS 21454
1985-1987	"In vitro development of hair cell function" P.A. Fuchs, P.I.; Total direct costs - \$50,000 Basil O'Connor Starter Research Grant, March of Dimes Birth Defects Foundation, BS #5-504.
1985-1990	"Electrical development of cochlear hair cells" P.A. Fuchs, P.I.; Total direct costs - \$250,000 NINCDS NS01007 - Research Career Development Award



1987-1992	"Electrical development of cochlear hair cells" P.A. Fuchs, P.I.; Total direct costs - \$471,701 NINCDS NS 21454
1992	"Auditory Research" P.A. Fuchs, P.I.; \$6,000 The National Organization for Hearing Research, Geraldine Dietz Fox Foundation
1987-1992	"Neurophysiology Training Grant", A.R. Martin, P.I., P.A. Fuchs, participant. Total direct costs approx. \$350,000. NIH NS 07803
1989	"Image Acquisition Stations", W.J. Betz, P.I., P.A. Fuchs, participant. Total direct costs approx. \$100,000. Small group instrumentation grant from NIH
1991	"Confocal Scanning Laser Microscope", W.J. Betz, P.I., P.A. Fuchs, participant. Total direct costs approx. \$150,000. Small group instrumentation grant from NIH
1992-1996	"Electrical development of cochlear hair cells" P.A. Fuchs, P.I.; Total direct costs - \$975,201 NIDCD DC 00276 (formerly NS 21454)
1992-1995	"The cholinergic response of cochlear hair cells" P.A. Fuchs, P.I., Total direct costs - \$364,024 NIDCD DC 01508
1993-1995	"Neurophysiology Training Grant" W.J. Betz, P.I., P.A. Fuchs, participant. Total direct costs approx. \$350,000. NIH NS 07803
1993-1995	"Training in developmental neurobiology" Neuroscience Program Training Grant, U. Colorado, N.W. Seeds, P.I., P.A. Fuchs, participant. Total direct costs \$345,000. NIH T32 HD 07408
1993-1998	"Medical Scientist Training Grant" U. Colorado, M.C. Neville, P.I., P.A. Fuchs, participant. Total direct costs \$503,345. Institutional National Research Training Award 5 T32 GM 08497 (participation ends 1995)

1995-1999	"The cholinergic response of cochlear hair cells" P.A. Fuchs, P.I., Total direct costs - \$767,441 NIDCD DC 01508
1996-2001	"Electrical development of cochlear hair cells" P.A. Fuchs, P.I., Total direct costs - \$1,395,705 NIDCD DC 00276
1997-1998	"The search for $\alpha 9$ , the putative hair cell ACh receptor, in human inner ear tissue" L. Lustig, Fellow, P.A. Fuchs, supervisor, Total direct costs \$40,000. The American Otological Society, Inc.
1999-2004	"The cholinergic response of cochlear hair cells" P.A. Fuchs, P.I., Total direct costs - \$1,128,626 NIDCD DC 01508.
2001-2007	"Excitability and synaptic function of cochlear hair cells. P.A. Fuchs, P.I., Total direct costs - \$1,250,000. NIDCD DC00276.
2002-2007	"P30 Research Center" Center for Hearing and Balance P.A. Fuchs, P.I., Total direct costs - \$3,052,861. NIDCD DC05211
2003-2006	"Nicotinic receptors in hair cell physiology" P.A. Fuchs, P.I., Total direct costs - \$96,000. Fogarty International Research Collaboration Award
2004-2009	"The cholinergic response of cochlear hair cells" NIDCD DC01508. P.A. Fuchs, P.I., Total direct costs - \$3,226,588.
07/10/2006- 06/30/2011	"Excitability and synaptic function of cochlear hair cells" NIDCD R01 DC000276 P.A. Fuchs, P.I., Total costs – \$2,010,675.
07/01/2007-06/30/2012	"P30 Research Center" Center for Hearing and Balance P.A. Fuchs, P.I., Total costs - \$3,012,888. NIDCD P30 DC05211
07/01/2009-06/30/2014	"The cholinergic response of cochlear hair cells" NIDCD R01 DC01508. P.A. Fuchs, P.I., Total direct costs –

\$2,754,174

- 07/01/2009-06/30/2014 “Research training in Otolaryngology-HNS” NIDCD T32000027. P.A. Fuchs, P.I., total direct costs ~\$1,000,000. (approved for funding 2014)
- 07/01/2010 – 06/30/2015 “Training Program in Hearing and Balance” NIDCD 5T32DC000023-25. E.D. Young P.I. total direct costs \$2,259,638. P.A. Fuchs co-PI.
- 09/01/2008 – 08/31/2010 “Type II cochlear afferents: a pathway for painful sound?” P.A. Fuchs, P.I., Blaustein Pain Foundation, Johns Hopkins, total direct costs ~\$52,000.
- 07/01/2011 – 06/30/2016 “Excitability and synaptic function of type II cochlear afferents” NIDCD R01 DC 011741. P.A. Fuchs P.I., total costs \$2,399,308.
- 07/01/2011 – 06/30/2013 “Pain Workgroup”, Brain Sciences Institute, M. Caterina, P.I., ~ \$300,000. P.A. Fuchs, participant.
- 09/01/2012-08/31/2017 “P30 Research Center” Centers for Hearing and Balance and Sensory Biology P.A. Fuchs, P.I., Total costs - \$3,012,888. NIDCD P30 DC05211
- 09/01/20014-08/31/2019 “The cholinergic response of cochlear hair cells” NIDCD R01 DC001508. P.A. Fuchs, P.I., Total costs – \$2,456,896

**Symposia:**

Johns Hopkins Center for Hearing and Balance, Baltimore, MD 1997: “Synaptic Function in Hearing and Balance” – Chair

Johns Hopkins Otolaryngology-Head and Neck Surgery and Boystown National Research Laboratory, Baltimore MD, 10/14/05: “Genetic Models of Inner Ear Function” – Chair

“The Senses” *Journal of Physiology* Symposium 2005 in Association with the Society for Neuroscience, San Diego, CA. - speaker

Johns Hopkins Center for Sensory Biology Inaugural Symposium 11/13/06 “Sensory Biology: Understanding our Windows to the World” – Chair

Association for Research in Otolaryngology, 2006, “Efferent Control of Hearing and Balance” - speaker

Biophysical Society, Baltimore, MD 2007, “Modulation of Primary Sensory Function” - Chair

Association for Research in Otolaryngology Presidential Symposium, Baltimore, MD 02/15/09: “Comparative studies of hearing: of (more than) mice and men” – Chair

“Sensory End Organs: Signal Processing in the Periphery” Journal of Physiology Symposium 2013 in Association with the Society for Neuroscience, San Diego, CA - speaker

**Invited Lectures (selected):**

- |      |                                                                                                                                         |
|------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1993 | Tohoku University Department of Physiology, Sendai, Japan, March, 1993, Visiting Professor.                                             |
| 1993 | Kyoto University Department of Physiology, Kyoto, Japan                                                                                 |
| 1994 | Acoustical Society of America Symposium "Cochlear Efferent Pathways: Structure and Function". Cambridge, MA.                            |
| 1994 | "Inner Ear Neuropharmacology" First International Symposium, Montpellier, France, Sept. 1994, Member, International Advisory Committee. |
| 1994 | "Neuronal Nicotinic Receptors" Philippe Laudat Conference, Strasbourg, France.                                                          |
| 1995 | Program in Neuronal Growth and Development, Colorado State University, Ft. Collins CO.                                                  |
| 1995 | New Mexico State University, Las Cruces, NM., Department of Biology, May, 1995.                                                         |
| 1996 | Kresge Hearing Center, University of Michigan                                                                                           |
| 1996 | NIH-NIDCD, Bethesda, MD.                                                                                                                |
| 1996 | RS Dow Neurological Institute, Portland, Ore.                                                                                           |
| 1997 | Neurobiology and Behavior, Cornell U., Ithaca, N.Y.                                                                                     |
| 1997 | Neurobiology Department, Duke University                                                                                                |
| 1997 | Cell and Molecular Biology, U. Maryland College Park                                                                                    |
| 1998 | "Biophysics of Auditory Function" Symposium, Association for Research in Otolaryngology Annual Meeting, Florida                         |
| 1999 | “Molecular Sensory Physiology” Guenzburg, Germany                                                                                       |
| 1999 | The George Raiziss Biochemical Rounds, “Diverse Intracellular Signaling Pathways”, U. Penn., Phila. Penn.                               |

1999 University of Maryland, Program in Human Genetics  
 1999 Eaton-Peabody Laboratory, Mass. Eye and Ear, Boston  
 2000 Medical College of Carolina, Charleston, SC.  
 2000 Biophysics, University College, London  
 2001 Physiology and Neurobiology, U. Tennessee, Memphis  
 2001 Plenary Lecture, Rocky Mountain Regional  
 Neuroscience Meeting, Denver, Colorado.  
 2001 International Union of Physiological Sciences, Auckland,  
 New Zealand  
 2001 Rutgers University  
 2002 University of Chicago  
 University of Iowa, Iowa City  
 University of Illinois, Champaign-Urbana  
 American Society of Human Genetics Annual Meeting  
 2003 University of Alabama, Birmingham  
 LSU Medical, New Orleans,  
 University of Washington, Seattle  
 2004 University of California, Davis  
 University of Buenos Aires, Argentina  
 National Institute of Deafness and Communication  
 2005 Keynote address: Eastern Auditory Research Symposium,  
 Philadelphia, PA.  
 2005 UT, Houston Integrative Biology and Pharmacology  
 Creighton University, Biomedical Sciences  
 School of the Neurosciences, Buenos Aires, Argentina  
 2006 The A.R. Martin Lecture, University of Colorado  
 The Vollum Institute, Portland, Oregon  
 2007 H.X. Chang Plenary Lecture, Chinese Society for  
 Neuroscience, Hangzhou, China  
 Southeast Medical University, Nanjing China  
 Hanyang University Department of Otolaryngology, Seoul,  
 Korea  
 2008 College de France, Paris  
 Eaton-Peabody 50<sup>th</sup> Anniversary Lecture, Boston, MA.  
 2009 Platform lecture, the Ribbon Synapse Symposium,  
 Goettingen, Germany  
 2009 International Union of Physiological Sciences, Kyoto  
 2009 European Science Foundation, “Rare Diseases of Hearing  
 and Vision” Sant Feliu de Guixols, Spain  
 2009 Plenary Lecture “Capital Science Evenings” the Carnegie  
 Institute of Washington DC  
 2010 Plenary Lecture, the Tinnitus Research Initiative, Dallas  
 TX

2010	Society for Neuroscience, Cordoba, Argentina, Symposium speaker
2011	American Auditory Society, Scottsdale, AZ. Symposium speaker.
2011	Sensory Physiology Series, University of Goettingen, Goettingen, Germany
2011	The Ear Institute, University College London
2012	University of Maryland
2013	The Ribbon Symposium, Goettingen Germany
2013	The Neuroscience Institute, INSERM, Montpellier, France
2013	“Fundamental Principles of Sensory Processing” Goettingen, Germany
2013	Symposium lecture, Society for Neuroscience, San Diego
2014	Pasteur Institute, Paris
2014	Regional Auditory Neuroscience, Clermont-Ferrand, France
2014	Plenary Lecture, Congrès des Audioprothesistes, Paris
2014	National Institute for Deafness and Other Communication Disorders
2014	Kresge Institute, University of Michigan
2014	Keynote lecture, Inner Ear Biology, Kyoto Japan

## Books

*From Neuron to Brain*, 4<sup>th</sup> edition (2001) JG Nicholls, AR Martin, BG Wallace and PA Fuchs. Sinauer Associates, Inc. Sunderland, MA.

- *From Neuron to Brain*, 4<sup>th</sup> edition (2003) JG Nicholls, AR Martin, BG Wallace and PA Fuchs. Chinese edition. ScienceP Press, Beijing, China.
- *From Neuron to Brain*, 4<sup>th</sup> edition (2004) JG Nicholls, AR Martin, BG Wallace and PA Fuchs. Russian edition.

*The Ear*, volume 1 of the Oxford University Press Handbook of the Auditory Sciences, P.A. Fuchs, Editor, January, 2010.

*Advances in Comparative Studies of the Ear*. (Special volume of Hearing Research). G.A. Manley and P.A. Fuchs, editors, 2010.

*From Neuron to Brain*, 5<sup>th</sup> edition (2011), JG Nicholls, AR Martin, PA Fuchs, DA Brown, M Diamond and D Weisblatt. Sinauer Associates, Inc. Sunderland, MA.

## Refereed Publications:

1. Fuchs, P.A. and P.A. Getting (1980). Ionic basis of presynaptic inhibition at crayfish claw opener. *Journal of Neurophysiology* 54:1547-1557.
2. Fuchs, P.A., J.G. Nicholls and D.F. Ready (1981). Membrane properties and selective connexions of identified leech neurones in culture. *Journal of Physiology* 316:203-223.
3. Fuchs, P.A., L.P. Henderson and J.G. Nicholls (1982). Chemical transmission between individual Retzius and sensory neurones of the leech in culture. *Journal of Physiology* 323:195-210.
4. Art, J.J., A.C. Crawford, R. Fettiplace and P.A. Fuchs (1982). Efferent regulation of hair cells in the turtle cochlea. *Proceedings of the Royal Society, London B* 216:377-384.
5. Art, J.J., R. Fettiplace and P.A. Fuchs (1984). Synaptic hyperpolarisation and inhibition of turtle cochlear hair cells. *Journal of Physiology* 356:525-550.
6. Art, J.J., A.C. Crawford, R. Fettiplace and P.A. Fuchs (1985). Efferent modulation of hair cell tuning in the cochlea of the turtle. *Journal of Physiology* 360:397-421.
7. Evans, M.G. and P.A. Fuchs (1987). Tetrodotoxin-sensitive voltage-dependent sodium currents in hair cells from the alligator cochlea. *Biophysical Journal* 52:649-652.
8. Fuchs, P.A., T. Nagai and M.G. Evans (1988). Electrical tuning in hair cells isolated from the chick cochlea. *Journal of Neuroscience* 8:2460-2467.
9. Fuchs, P.A., and M.G. Evans (1988). Voltage oscillations and ionic conductances in hair cells isolated from the alligator cochlea. *Journal of Comparative Physiology* 164:151-163.
10. Fuchs, P.A. and M.G. Evans (1990). Potassium currents in hair cells isolated from the cochlea of the chick. *Journal of Physiology*. 429:529-551.
11. Fuchs, P.A., M.G. Evans, and B.W. Murrow (1990). Calcium current in hair cells isolated from the cochlea of the chick. *Journal of Physiology*. 429:553-568.
12. Fuchs, P.A. and B.H.A. Sokolowski (1990). The acquisition during development of Ca-activated potassium currents by cochlear hair cells of the chick. *Proceedings of the Royal Society, London, B*. 241:122-126.
13. Murrow, B.W. and P.A. Fuchs (1990). Preferential expression of transient potassium current,  $I_A$ , by short hair cells of the chick's cochlea. *Proceedings of the Royal Society, London, B*. 242:189-195.

14. Fuchs, P.A. and B.W. Murrow (1992a). Cholinergic inhibition of short (outer) hair cells of the chick's cochlea. *Journal of Neuroscience*. 12(3):800-809.
15. Fuchs, P.A. and B.W. Murrow (1992b). A novel cholinergic receptor mediates inhibition of chick cochlear hair cells. *Proceedings of the Royal Society, London, B* 248:35-40.
16. Martin, A.R. and P.A. Fuchs (1992). The dependence of calcium-activated potassium currents on membrane potential. *Proceedings of the Royal Society, London B* 250:71-76.
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