

## CURRICULUM VITAE

January 11, 2018

**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>  
<http://centerforsensorybiology.org/fuchs-laboratory/>

**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

[https://www.youtube.com/watch?v=FkqjD\\_AceWM](https://www.youtube.com/watch?v=FkqjD_AceWM)

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  
2015-date Director, Center for Hearing and Balance

**Awards, Fellowships, 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
2015	Vanderzicht Lecture, University of Washington
2017	Presidential Citation, the American Neurotology Society
2017	Keynote Lecture, the 3 <sup>rd</sup> Chinese Hearing Research Conference, Nanjing

**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
2015-date	Regular member, AUD Study Section CSR-NIH
2017	Chair, AUD Study Section CSR-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	Committee on Biomedical Engineering, Johns Hopkins
2000-	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
2010-2016	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
2014-2017	Chair, Finance and Investment Committee, ARO
2013-2017	Course Director, “Biology of the Inner Ear” Marine Biological Laboratory, Woods Hole, MA.
2015-date	External advisor, Research training grant U. Colorado
2016	External reviewer, Neuroscience training program, Stanford
1984-	Reviewer: <i>Brain Research, European Journal of Physiology, Hearing Research, Journal of Comparative</i>

*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.*

**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
2007-	Lecturer and instructor, The Biology of the Inner Ear, Marine Biology Laboratory, Woods Hole, MA
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

2010-2014	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
2013-2017	Course Director and lecturer, The Biology of the Inner Ear, Marine Biology Laboratory, Woods Hole, MA
2015-date	“Earssentials” NIH-NIDCD, lecturer

### **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 patent lawyer.
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 for 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 Professor and Director of Otolaryngology Head and Neck Surgery, Columbia University Medical Center, NY.
18. Mr. Timothy Michael, 1997-2000, Research Assistant and M.S. candidate, Johns Hopkins University, now MBA, biotech industry.
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 Professor, Department of Otolaryngology-HNS, Johns Hopkins University School of Medicine,
21. Dr. Takehito Yamamoto, 1998-2000, postdoctoral fellow. Now Associate 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. 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 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 Associate Professor chez Université d'Auvergne, France.
31. Dr. Catherine Weisz, 2007 – Ph.D., Department of Neuroscience, Johns Hopkins, now laboratory head, National Institute for Deafness and other Communication Disorders, NIH.
32. Dr. Gi Jung Im, 2010 – postdoctoral fellow, now Professor of Otolaryngology-Head and Neck Surgery, Korea University, Seoul, Korea.
33. Ms. Chang Liu, 2010-2016 – doctoral student in Neuroscience, Johns Hopkins, now postdoctoral research fellow, Genentech.
34. Mr. Stephen Zachary, 2010-2016 – doctoral student in Neuroscience, Johns Hopkins, now biotech venture capital product analyst.
35. Dr. Kevin Rohmann, 2011-2015 – postdoctoral fellow, now research associate Cornell University.
36. Dr. Howard Moskowitz 2014-2015 Neuro-otology fellow Johns Hopkins, now Assistant Professor of Otolaryngology Albert Einstein College of Medicine, New York.
37. Dr. Pankhuri Vyas, 2012 – postdoctoral fellow.
38. Mr. Nate Nowak, doctoral student in Neuroscience, Johns Hopkins.
39. Dr. Yuanyuan Zhang, 2017 – postdoctoral fellow.
40. Dr. Adam Goldring, 2018 – postdoctoral fellow.
41. Dr. L. Megan Wood, 2018 – 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 DC005211
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 DC005211
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. (re-funded 2014, transferred to J. Carey PI)
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. (NCE 06/2017)

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 DC005211

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

07/01/2015 – 06/30/2020 “Training Program in Hearing and Balance” NIDCD 5T32DC000023-25. P.A. Fuchs P.I. Total costs - \$1,873,434

02/01/2016 – 01/31/2021 “Calcium signaling at a cisternal synapse” NIDCD 1R01DC015309-01 P.A. Fuchs, Co-P.I (R. Winslow PI). Total costs - ~\$2,672,610

07/01/2017 – 06/30/2022 “Type II afferents and cochlear damage” NIDCD 1R01 DC016559. P.A. Fuchs P.I., Total costs - \$2,585,622.

**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 Invited teacher, IUPS Education Program for Children,  
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
2015	Vanderzicht Endowed Lecture, U. Washington, Seattle
2016	Symposium speaker, Federation of Latin American Associations for Neuroscience, Buenos Aires
2017	Keynote speaker, Chinese Hearing Research Conference, Nanjing

## 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.
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#### **Trainee's papers written under direct supervision:**

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#### **Invited reviews, chapters and commentaries:**

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