

CURRICULUM VITAE

November 10, 2016

Name: Paul Albert Fuchs

Webpages: 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

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/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/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

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

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

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- 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
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-	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 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 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 Professor and Chair 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.
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 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, 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 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 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.
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

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 th 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

Books

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

- *From Neuron to Brain*, 4th edition (2003) JG Nicholls, AR Martin, BG Wallace and PA Fuchs. Chinese edition. ScienceP Press, Beijing, China.
- *From Neuron to Brain*, 4th 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, 5th 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.
17. Sokolowski, B.H.A., L. Stahl and P.A. Fuchs (1993). Morphological and physiological development of vestibular hair cells in the organ-cultured otocyst of the chick. *Developmental Biology* 155:134-146.
18. Oyama, Y., P.A. Fuchs, N. Katayama and K. Noda (1994). Myrcetin and quercetin, the flavonoid constituents of *Ginkgo biloba* extract, greatly reduce the oxidative metabolism in both resting and Ca-loaded brain neurons. *Brain Research* 635:125-129.
19. Zidanic, M. and P.A. Fuchs (1995). Kinetic analysis of barium currents in chick cochlear hair cells. *Biophysical Journal* 68:1323-1336.
20. McNiven, A.I. W.A. Yuhas and P.A. Fuchs (1996). Ionic dependence and agonist preference of a hair cell acetylcholine receptor. *Auditory Neuroscience* 2:63-77.
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