

CURRICULUM VITAE

NAME: ANTHONY RICCI, PH.D.

PRESENT POSITION AND ADDRESS:

Amy Sewall Professor
Department of Otolaryngology
Department of Cell and Molecular Physiology
Stanford University
300 Pasteur Drive, Edwards Bldg, R145

Stanford CA 94305
Phone: 650-736-1290
Fax: 650-725-8502
e-mail: aricci@stanford.edu

EDUCATION AND TRAINING:

Education:

1985:	BA	Chemistry	Case Western Reserve University
1992:	PhD	Neuroscience	Tulane University

Post Doctoral Training:

1992 - 1995:	<u>Post-doctoral Fellow</u>	Hair cell Biophysics	University of Texas Medical Branch at Galveston Deptment of Otolaryngology and Neuroscience
1995- 1997:	<u>Post-doctoral Fellow</u>	Cochlear Mechanics	University of Wisconsin Physiology Department

PROFESSIONAL APPOINTMENTS:

Academic Appointments:

1985-1988:	<u>Research Assistant</u>	Case Western Reserve University Neurosurgery
1991:	<u>Independent Contractor</u>	Nikon Inc. Fabricating Light Source
1997-1998:	<u>Assistant Scientist</u>	University of Wisconsin Department of Physiology
1998-1999:	<u>Scientist</u>	University of Wisconsin Department of Physiology
1999-2004:	<u>Assistant Professor</u>	Louisiana State University Neuroscience Center
1999-2004:	<u>Adjunct Assistant Professor</u>	Louisiana State University Department of Otolaryngology
2004-2006:	<u>Associate Professor</u>	Louisiana State University Neuroscience Center

ANTHONY J. RICCI, PH.D.
CURRICULUM VITAE
PAGE 2

2005-2006: <u>Visiting Scientist</u>	National Institutes of Deafness and Other Communcative Disorders with Dr. Bechara Kachar
2006-2010: <u>Associate Professor</u>	Stanford University Department of Otolaryngology
2006-2010: <u>Associate Professor (Courtesy)</u>	Stanford University Department of Molecular and Cellular Physiology
2009-2013: <u>Adjunct Scientist</u>	Marine Biology Laboratories, Woods Hole, MA
2010-present: <u>Professor</u>	Stanford University Department of Otolaryngology (Courtesy) Department of Molecular & Cellular Physiology

Other Appointments (Stanford only):

2006-present:	Faculty Affiliate	Stanford Center for Longevity
2008-present:	Faculty Member	Bio-X
2010-present	Director	Imaging core facilities
2013-present	co-Director	ADVANCE summer research Institute
2014-2019	Director	Neuroscience Graduate Training Program
2019-present	Director	Research Division Depart. of Otolaryngology Stanford
2019-present	Vice-Chair	Department of Otolaryngology, Stanford

Current Graduate and Fellowship Program Affiliates

2006-present:	Faculty Affiliate	Stanford Graduate Program in Molecular & Cellular Physiology
2006-present:	Faculty Affiliate	Stanford Graduate Program in Neurosciences

FELLOWSHIPS AND AWARDS:

1988-1992: Graduate School Chancellor's Fellowship, Tulane University
1994-1995: NASA Research Fellowship, University of Texas
1994: Young Investigators Travel Fellowship to Gordon Conference
1999: Young Investigator Award, Deafness Research Foundation
1999-2001: Deafness Research Foundation Scholars Grant award
2002: Burt Evans Young Investigator Award, National Organization for Hearing
2004: Marine Biology Laboratory Research Fellowship, Woods Hole, MA

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 3

2010: Edward C. and Amy H. Sewall Professor, Stanford University

2014: Excellence in Diversity award, Stanford University

2018: Excellence in Diversity award, Stanford University

PEER REVIEW ACTIVITY:

Journal of Neuroscience

Journal of Physiology

Journal of Pharmacology and Experimental Therapeutics

Journal of Neurophysiology

Journal of General Physiology

Trends in Neuroscience

Brain Research

Neuroscience

European Journal of Neuroscience

Journal of Vestibular Research

Journal of the Association for Research in Otolaryngology

Journal of Biological Chemistry

American Journal of Physiology

Hearing Research

Nature, Nature Neuroscience, Nature Communications, Nature Biotechnology

Neuron

Plos Biology

Nature Genetics

Nature Physics

Plos Physics

Biophysical Journal

Journal of Comparative Neurology

ELife

Science, Scientific Reports

MAJOR COMMITTEE ASSIGNMENTS

National and Regional:

2003 - present Ad Hoc Reviewer for National Science Foundation,

2000 - 2005 NIH/NIDCD Special Emphasis Panel

2000 - present NIH Ad Hoc Reviewer IFCN 4 and 6

2001 - present Deafness Research Study section

2005 - 2009 NIH/NIDCD AUD Study section

2006 Lecture on Emergency Preparedness for DFA Retreat, Stanford

2007 - 2008 Stanford Freezer management committee, meet to design plan for more efficient use of freezer space and to design plan to move samples offsite for safety.

2007 Search committee for Department of Otolaryngology, tenure

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 4

	track position basic science, Stanford
2007	Search committee for Department of Otolaryngology, Physician Scientist (otology), Stanford
2008	Search committee for Department of Otolaryngology, Physician Scientist (Rhinology)
2008-present	Search committee for Department of Otolaryngology, Physician Scientist (otology), Stanford
2008-present	Neuroscience Graduate Admissions Committee,
2012-present	Neuroscience Graduate Program Committee
2007-present	Resident Research committee
2008-present	Resident Admissions Committee
2013-2014	Committee on Graduate Admissions and Policy (CGAP)
2014-present	Committee for developing bioscience wide graduate student tracking software
2014-present	Sustainable Funding Workgroup, mission to develop funding model for graduate education
2014-present	Bioscience Diversity Admissions Committee
2015-present	ARO Nominating Committee
2016-present	Neuroscience Institute Senior Advisory Council
2016- present	Stanford's Interdisciplinary Awards Review Committee
2017-present	Stanford Neurotech Admissions Program

International:

2001-present	Grant reviewer for Welcome Trust (UK)
2003	Organized Satellite meeting to Neuroscience Meeting on Inner Ear Neurotransmission

Meeting Organization:

Symposia Chair on Cochlear Mechanics, Association for Research in Otolaryngology, 2001

Symposia Chair on Hair cell function Association for Research in Otolaryngology, 2009

PROFESSIONAL SOCIETIES:

1993-Present	Biophysical Society	Member
--------------	---------------------	--------

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 5

1989-Present	Association for Research in Otolaryngology	Member
1991-Present	Society for Neuroscience	Member
1992-Present	Tulane University Medical School Alumni Association	Member
1993-Present	Sigma Xi, The Scientific Research Society	Member
1999-present	Audubon Society	Member
1983-Present	Alpha Chi Sigma Chemistry Fraternity	Member
2013-present	Acoustical society of America	Member
2013-present	Audiology Society of America	Member
2012-present	Americal Physiological Society	Member

FUNDING:

Ongoing

R01 DC03896

1/18/99 – 12/31/22

Ricci (PI)

NIH/NIDCD

Molecules and Mechanisms of Mammalian Hair Cell Mechanotransduction

Major goal is to determine mechanism underlying tonotopic variations in mechano electric transduction

R01 DC009913

12/8/08-3/31/20

Ricci (PI)

NIH/NIDCD

Synaptic specializations in auditory hair cells

The major goal is to understand the mechanisms underlying the specializations of the hair cell afferent fiber synapse.

R01 DC014720

12/01/15-11/30/20

Ricci (MPI), Cheng

NIH/NIDCD

Designing new aminoglycosides to alleviate inner ear toxicity

The goal of this proposal is to create a class of antibiotics where we have removed the side-effects of oto and nephrotoxicity.

R01 DC014658

4/1/15-3/31/20

Frolenkov

NIH/NIDCD

Repair of mechano-electrical transduction in mammalian auditory hair cells

My role is to do high speed imaging of hair bundles under various levels of stress and repair

P01 AG051443

9/1/16-8/31/21

Ebenezer, Ricci (MPI)

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 6

NIH/NIA

Determinants of age-induced hearing loss and reversal strategies

This proposal attempts to identify molecular mechanisms associated with age related hearing loss and to create new genetic models for aging.

R01 NS092099-01

4/1/15-3/31/20

Goodman (PI)

NIH

Genetic and Physical Basis of Mechanical Neuroprotection

Ricci (subcontract)

BioX

Ricci (co-PI)

1/1/2019-12/31/2019

Slow release drug delivery system into the inner ear using hydrogels and novel surgical approach

Stanford BioX

T32 MH020016

7/1/16-6/30/23

Ricci (PI)

NIH/NIMH

Training program in basic neuroscience

Completed:

P30 DC010363

9/18/09 - 2/28/18

Heller (PI)

NIH/NIDCD

Laser Fluorescence Imaging Core and Auditory Measurement Core

This research leads to a better understanding of valid in vivo measures of the peripheral auditory system in small mammals. It is applicable to a wide variety of small mammals including mice and guinea pigs.

Ricci (Imaging Core Director)

R21 DC012183

9/21/11 - 8/31/13

Ricci (PI)

NIH/NIDCD

Developing Non-Ototoxic Aminoglycosides

S10 RR027267

2010

Ricci (PI)

NIH/NCRR

Request for whole animal two photon microendoscopy imaging system.

R21 DC005470

5/1/02 - 4/30/04

NIH/NIDCD

Mature mouse cochlea culture model for physiological inv

Tinnitus Association: 'Salicylate effects on Mechano-electric transducer currents' (1-02 thru 8-03)

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 7

R21 DC008115

8/1/06 – 2/28/09

NIH/NIDCD

New technologies for investigating the hair cell afferent fiber synapse

The goal of this work was to develop a method for measuring synaptic release that was insensitive to conductance changes, to develop a nonenzymatic method for tissue preparation and to develop a paired recording method for hair cell afferent fiber measurements.

Ricci (PI)

R01 DC007910

7/1/12-6/30/17

NIH/NIDCD

Three-dimensional and multiscale organ of corti biomechanics

Steele, Ricci (MPI)

Deafness Research Grant Generation of oscillations of the mechano-electrical transducer current and their importance in hair cell tuning. (4-99 thru 4-01)

Young Investigator's Award (Deafness Research Foundation, (4-99 thru 1-00)

Mentored NRSA grant to Chris LeBlanc (2001 thru 2003)

Mentored NRSA grant to Ham Farris (2003 thru 2005)

Mentored NRSA and K99 to Anthony Peng

Stanford Fellowship to Manuello Castellano-Munoz

Ramon Y Cajal Fellowship to Manuello Castellano-Munoz

Stanford Fellowship to Jee-Hyun Kong

Stanford Fellowship to Thomas Effertz

DRG Fellowship to Thomas Effertz

Mentored NRSA to Mamiko Niwa

NSF to Alex Scharr

Stanford Fellowship to Sara Talaei

TEACHING:

A) Academic

LSU Graduate Program

2000-2005 Topics in Neuroscience:

Introductory survey course for neuroscience students, 10-15 students, 25hrs/yr.

2003-2005 Topics in Neuroscience:

Director of course, responsible for organizing lectures and topics, exams and presentations

1999-2005 Investigative Neuroscience:

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 8

- Cellular Neuroscience course for graduate students, 10-15
5hrs lecture/yr.
- 2003-2005 Director of Investigative Neuroscience, responsible for establishing
curriculum and identifying speakers,
- 2000-2005 Synaptic Organization of the Brain,
Lectured on cochlear nucleus structure and function
6hrs/yr., ~25 students

LSU Medical School

- 2000-2005 Medical Neuroscience:
Auditory lectures for first year medical neuroscience lectures.
6hrs/yr., ~125 students

LSU Dental School

- 2000-2005 Dental Physiology:
Auditory lectures and laboratories for dental students.
12hrs/yr., ~100 students

Stanford University Medical School

- 2006-present Stanford Intensive Neuroscience (SIN),
Coteach in intensive first year course required of all neuroscience students.
~100 hrs/yr., 10-12 students
- 2006-present How Cells Work, MCP 256
Lectures on Hodgkin-Huxley modeling of action potentials
6hrs/yr., 5-10 students
- 2006-present Resident Education
1-2 lectures per year on inner ear function
- 2007-2009 Cochlea function lectures to mechanical engineers
- 2009-2016 Computational Neuroscience cells and circuits, from molecules to behaviour:
Neurology 220, brief introduction to cochlear nucleus and paper presentation,
3hrs/yr., ~6 students
- 2016-present Responsible conduct and ethics in neuroscience research
15hrs of lecture and discussion
12-30 students
- 2016-present Neuroscience Cellular Core Module
15 in class hours
12-20 students

Stanford Engineering

- 2008-present Biomechanics of hearing, speech and balance ME341
Lectured on hair cell structure and function.
4hrs/yr., 15 students

B) Community

- 1999-2005 Tutor for New Orleans High School of Math and Science
- 2003-2005 Science Days for underprivileged schools
- 2009-present Stanford Summer Research Program (SSRP)/Amgen Scholars
- 2013-present Stanford Advance summer research program for incoming graduate students

C) Invited Lectures

(1994) Case Western Reserve University; title "Characterization of the electrical properties of vestibular hair cells.

(1996) University of Bristol "Electrical Properties of Vestibular Type I hair cells."

(1997) Tulane University Neuroscience Center (1997), title "Calcium regulation of the Mechano-electric transducer channels in auditory hair cells."

(1998) University of Kentucky, "Calcium Permeation of Mechano-electric Transducer Channels"

(1998) Oregon Health Science Center, "Calcium Regulation of Mechano-electric Transducer Adaptation."

(2001) Baylor College of Medicine "Fast adaptation, mechanical correlates and physiological significance"

(2002) Rice University Department of Biomedical Engineering (2002) Active Processes in Sensory Hair Bundles

(2002) Tulane University Medical Center Physiology Department (2002) Active Processes in Sensory Hair Bundles.

(2004) University of Colorado Denver, Department of physiology, (2004) Active hair bundle movements and the cochlear amplifier.

(2004) National Institutes of Health, NIDCD, (2004) Mechanoelectric transduction, the cilia side of hearing.

(2004) Woodhole Neuroscience Seminar series, (2004) Mechanoelectric transduction, The cilia side of hearing.

(2004) Society for Neuroscience, Minisymposium, Mechanotransduction, Mechanisms and molecules.

(2004) Creighton State, Omaha NE, Hair cell synaptic specializations

(2005) Johns Hopkins University, Department of Otolaryngology, Presynaptic specializations in auditory hair cells.

(2005) Gordon Research Conference, What do we know about hair cell mechanotransduction?

(2005) University of Chicago, Department of Physiology and Pharmacology, "Synaptic specializations in auditory hair cells."

(2005) Stanford University, Department of Otolaryngology, "Synaptic specializations in auditory hair cells."

(2005) Vollum Neuroscience Institute and Oregon Health Sciences State University, "Synaptic specializations in auditory hair cells."

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 10

(2005) University of Colorado, Department of Otolaryngology, "Synaptic specializations in auditory hair cells."

(2007) Wellcome Trust, Cambridge England, Permeation of the mechanotransduction channel.

(2007) University of Paris, Hair bundle mechanics, Paris, France

(2007) Development of mechanotransduction in vitro, Colorado Midwinter meeting

(2008) Outer hair cell development, Colorado midwinter meeting.

(2008) Localizing mechanotransduction channels to stereociliary tips, Neuroscience Program, Ohio State University, Columbus, OH.

(2008) Localization of Mechanotransducer channels using calcium imaging, University of Sheffield, UK

(2009) Swept field confocal imaging, Short course on Microscopy, Association for research in Otolaryngology

(2009) IUPS Society Japan, Calcium imaging of hair cell mechanotransducer channels

(2009) Localizing mechanotransducer channels to the tips of stereocilia, Department of Otolaryngology, Kyoto University Japan

(2009) Localizing mechanotransducer channels to stereocilia tips, Department of Otolaryngology OHSU and Vollum Institute

(2009) Real time capacitance measurements give insight into vesicular trafficking at the hair cell ribbon synapse, Creighton State, Omaha NE

(2009) Real time capacitance measurements give insight into vesicular trafficking at the hair cell ribbon synapse, OHSU Vollum Institute

(2011) Psychological and Brain Sciences, University of Louisville, Kentucky.

(2011) Focus on synapses of sensory cells in the inner ear and retina, Max Planck-Institute of Experimental Medicine Gottingen, Germany.

(2012) Evidence for synchronous release at a hair cell ribbon synapse, University of Oregon.

(2013) Synaptic specializations at the hair cell afferent fiber synapse, University of Gottingen

(2013) Novel aminoglycosides reduce ototoxicity, Tubingen Germany

(2015) Multivesicular release at the hair cell synapse, University of Gottingen

(2015) Lipid regulation of hair cell mechanotransduction, IEB, Rome Italy

(2015) Vesicle trafficking underlies synaptic specializations at the hair cell afferent fiber synapse, Tulane University, Neuroscience program

(2016) PIP2 modulation of hair cell mechanotransduction, Northwestern

(2016) New insights into mechanotransduction, Tulane University

(2017) Role of ribbon in synaptic transmission, University of Colorado

(2017) Role of Ribbon in synaptic transmission Northwestern University Neurobiology Program

(2017) Designing Novel Aminoglycoside Antibiotics (Northwestern University, Communication Sciences Program)

(2017) PIP2 Modulation of mechanotransduction Columbia University

(2019) The role of the synaptic ribbon in modulation synaptic transmission at the hair cell afferent fiber synapse. Johns Hopkins University Neuroscience

(2019) Hair bundle mechanics shapes mechanotransduction response. Case Western Reserve University Department of Otolaryngology

TRAINING RECORD:

Undergraduates:

2003-2004 Joydeep Goswami, LSU now engineer in private company
2002-2005 Urvi Gajjar, LSU, now nursing school
2009 Taiyabah Naeem, Gallaudet University
2009-2011 Lauren Luk, Berkeley, med school, ???
2015-2019 Gabrielle Steiner, Biology Department at Stanford, biotech
2014-2015 Autefeh Sajjadi, Berkeley
2016-present Randy Lin UCLA post bac, applying to med school
2019-present Murray Bartho

Graduate Students:

2002-2005 C. McDermott: LSU, presently faculty at Tulane University
2005-2009 J. Waguespack, LSU, presently school teacher in New Orleans
1999-2001 H.K. Lee, Tulane University
2006-2007 U. Manor, NIH, NIDCD with Bechara Kachar
2007-2007 C. Greydon, NIH, NIDCD with Bechara Kachar
2008-2009 Y.J. Yoon, Stanford University, Mechanical Engineering 2008-2009
S.J. Park, Stanford University, Mechanical Engineering 2008-2014
R.P. Jackson, Stanford University, Mechanical Engineering, biotech

2004-2006 B. Currall, Creighton University, Neuroscience
2009- 2015 K. Spinelli, OHSU, Neuroscience Program, Portland OR, postdoc OHSU
2010- 2016 A. Bryant, Stanford University, Neuroscience, postdoc UCLA
2008- 2013 C. Bennett, Stanford University, Comparative Medicine, ???
2009- 2015 J. Doll, Stanford University, Mechanical Engineering, biotech
2014- 2018 Yanli Wang, Stanford Mechanical engineering, postdoc Harvard
2016-2017 Joy Franco, Stanford Mechanical Engineering, grad stud Goodman lab
2012-2019 Alex Scharr, Neuroscience Program, Stanford, consultant Ricci Lab
2011-2018 Sammi Katta, Neuroscience Program, Stanford, rsch policy fellowship DC
2016-2017 Maruti Didwania, Mechanical Engineering, Stanford University, biotech

Postdoctoral fellows:

2002-2005 H. Farris, LSU, presently faculty LSU Neuroscience
2001-2004 C. LeBlanc, LSU, Faculty at Tulane University
2007-2008 C. Spoon, Stanford University, Staff Scientists University of Virginia
2007-2011 B. Pan, Stanford University, Staff scientist, Decibel Corp
2009-2011 M. Pathak, Stanford University, Faculty UCLA
2009-2015 A. Peng, Stanford University, Faculty University of Colorado
2009-2012 M. Castellano, Stanford University, Audiologist
2011-2016 T. Effertz, Stanford University, Faculty, University of Gootengen
2011-2017 Mamiko Niwa, Stanford University, scientist University of Michigan
2009-2012 J. Kong, Stanford University, ???
2017-2019 Gopal Pramanik, Stanford University, postdoc another lab Stanford
2016-present Sara Talaei, Stanford University
2016-present Shefin George, Stanford University
2016-present Mary O'Sullivan, Stanford University
2017- present Jinkyung Kim, Stanford University
2019-present Diletta Pozzi, Stanford University
2020-present Sriram Hemachandran, Stanford University

Medical students:

2007 Matt Mori: Stanford University, summer research project
2016-2020 Noor Ali, Stanford, will start residency in Otolaryngology
2016-2019 Adela Perez, Stanford medical student
2017-2018 Autefeh Sajjadi, Stanford, Creighton University medical school

Visiting Clinicians, Department Fellows

2008-2010 Juro Burko, Stanford University, working on aminoglycoside toxicity
2007-2010 Abdelrhman Alharazneh, Stanford University, visiting clinician from
Jordon working on aminoglycoside ototoxicity
2008-2010 Ashkan Monfared has been working on developing imaging techniques
that do not require the use of dyes, such as NADH and collagen
2010-2012 Markus Huth, Stanford University, concentration in bioengineering and
clinical research

Residents:

2008-2009 Nadarja Garani, Stanford University, 2009, summer research and grant
application
2007 Vanessa Erickson, Stanford University, 2007, imaged nasal mucosal cells
after treatment with retinoic acid.
2013-2015 Eduardo Corrales, Stanford University, Faculty Harvard University
2013-2015 Jennifer Alyono, Stanford Resident, Faculty Stanford
2016-present Jason Qian, Stanford University Resident
2017-present Grace Kim, co-mentored with Alan Cheng Stanford University

Research Associates:

2000-2020 Michael Schnee, retired
2012-2015 Felipe Salles, Dentist

ANTHONY J. RICCI, PH.D.

CURRICULUM VITAE

PAGE 13

2015-present Lars Becker, PhD, Group Leader Decibel Corp.

2018-present Patrick Atkinson, PhD, F=Core Facility Director

Junior Faculty:

2004-present Katie Rennie, University of Colorado

1998-2005 Chu Chen, LSU

1999-2004 Chris Holt, University of Rochester

2005-2011 John Brigande, OHSU

2007-2014 Alan Cheng, Stanford

2008-present Maryline Beurg, University of Bordeaux

2011-present Mirna Mustapha, Stanford University

2015-present Nicolas Grillet, Stanford University

PUBLICATIONS:

Book Chapters:

1. Harrington, J., Buczek, M., Whittingham, T., Lust, W., **Ricci, A.**, Assaf, H., Sternau, L., Lamanna, J., Ratcheson, R. (1989). Effects of Metabolic Stress On the Release of Glutamate and GABA from Hippocampal Slices. In: Neurotransmission and Cerebral Vascular Function I, eds. Seylaz, J. and Mackenzie, E. pp. 433-436. Baltimore: Elsevier Science Publishers.
2. Lust, W., **Ricci, A.**, Selman, W., Ratcheson, R. (1989). Methods of Fixation of Nervous Tissue for Use in the Study of Cerebral Energy Metabolism. In: Neuromethods, eds. Boulton, A., Baker, G., and Butterworth R. pp. 1-41. Clifton: Humana Press.
3. **Ricci, AJ** (2000) Fast transducer adaptation, physiological implications and underlying mechanisms. In: Hair Cells: Micromechanics and Hearing, eds. C. Berlin. Singular Publishing Group, San Diego CA.
4. **Ricci, AJ** (2002). Mechanical correlates of fast transducer adaptation, implications toward function and underlying mechanism. In: Hair Cells: Micromechanics and Hearing. Eds. C.Berlin, **AJ Ricci** Singular Publishing group, San Diego CA.
5. Fettiplace, R. Crawford, A.C. and **Ricci, A.J**: (2003). The effects of calcium on mechanotransducer channel kinetics in auditory hair cells. In: Biophysics of the Cochlea. Ed A.W. Gummer World Scientific New Jersey.
6. Fettiplace, R & **Ricci, AJ** (2005). Mechanoelectrical transduction in auditory hair cells. In: Springer Handbook of Auditory Research: Hair Cells, eds. RA. Eatock, A .Popper, RR. Fay. Springer, Germany.
7. **Ricci, AJ** & Kachar, B (2007). Hair Cell Mechanotransduction: the dynamic interplay between structure and function, In: Mechanotransduction, ed. OP Hamill Elsevier publishing.
8. Schnee, M.E., **Ricci, A.J.** (2017) The hair cell, afferent fiber synapse. In The Auditory System. Eds Popper and Fey, Elsevier Publishing

Papers:

1. Lust, W., Assaf, H., **Ricci, AJ.**, Ratcheson, R., Sternau, L. (1988) A Role for Y-Aminobutyric Acid (GABA) in the Evolution of Delayed Neuronal Death Following Ischemia. *Metabolic Brain Disease*, 3: 287-292.
2. Sternau, L., Lust, W., **Ricci, AJ.**, Ratcheson, R. (1989) Role for Y-Aminobutyric Acid in Selective Vulnerability in Gerbils. *Stroke*, 20: 281-287.
3. Assaf, H., **Ricci, AJ.**, Whittingham, TS., Lamanna, JC., Ratcheson, R., Lust, WD, (1990) Lactate compartmentalization in hippocampal slices: evidence for a transporter. *Metabolic Brain Disease*, 3:143-154.
4. Selman WR., **Ricci, AJ.**, Crumrine, RC, Lamanna, JC., Ratcheson, RA.' Lust, WD (1990) The evolution of focal ischemic damage: a metabolic analysis. *Metabolic Brain Disease* 1:33-44.
5. Selman, WR., Crumrine, RC., **Ricci, AJ.**, Lamanna, JC., Ratcheson, RA., Lust, WD. (1990) Impairment of metabolic recovery with increasing periods of middle cerebral artery occlusion in rats. *Stroke* 3:467-471.
6. **Ricci, AJ.**, Norris, C., Guth, P. (1991) Cyclic AMP Modulates Sensory Neural Communication at the Vestibular End Organ. *Brain Research*, 565: 78-84.
7. Guth, P. Aubert, A., **Ricci, AJ.**, Norris, C. (1992) Differential Modulation of Spontaneous and Evoked Neurotransmitter Release from Hair Cells: Some Novel Hypotheses. *Hearing Research*, 56: 69-78.
8. Norris, C., **Ricci, AJ.**, Housley, G., Guth, P. (1992) The Inactivating Potassium Channels of Hair Cells From the Frog Semicircular Canal. *Journal of Neurophysiology*, 68: 1642-1653.
9. **Ricci, AJ.**, Erostopova, C., Bobbin, R., Norris, C. (1994) A Comparison of Hair Cell Electrophysiologic and Morphologic Characteristics. *J. of Comparative Biochemistry and Physiology*, 107: 13-21.
10. **Ricci, AJ.**, Rennie, K.J., Correia, M.J. (1996) The delayed rectifier, IK1, is the major conductance in type I vestibular hair cells across vestibular end organs. *Pflugers Arch. Eur. J. Physiol.* 432: 34-42.
11. **Ricci, AJ.**, Rennie, K.J., Correia, M.J. (1996) A delayed rectifier conductance shapes the voltage response of type I hair cells. *Annals of the New York Academy of Sciences* 781:690-693.
12. Correia, M.J., **Ricci, AJ.**, Rennie, K.J., (1996) Filtering properties of vestibular hair cells: An Update. *Annals of the New York Academy of Sciences* 781: 138-149.
13. Rennie, K.J., **Ricci, AJ.**, Correia, M.J. (1996) Electrical Filtering in Gerbil Isolated Type I Semicircular Canal Hair Cells. *Journal of Neurophysiology*, 75: 2117-2123.

14. **Ricci, AJ.**, Fettiplace, R. (1997) The effects of calcium buffers and cyclic AMP on mechano-electrical transduction in turtle auditory hair cells. *Journal of Physiology* , 501: 111-124.
15. **Ricci, AJ.**, Rennie, K.J., Kevetter, G.A., Correia, M.J. (1997) Morphologic Identification of Vestibular Type I and Type II Hair Cells in the Pigeon and Gerbil. *Journal of Vestibular Research* 7(5): 393-406.
16. **Ricci, AJ.**, Rennie, K.J., Cochran, S.L., Correia, M.J. (1997) Morphologic Comparisons of dissociated Avian Type I and Type II Vestibular Hair Cells. *Journal of Vestibular Research* 7(5): 407-420.
17. **Ricci, AJ.**, Fettiplace, R. (1998) Calcium Permeation of the Hair Cell's Mechanotransducer Channel and its Relation to the Composition of Endolymph. *Journal of Physiology* 506: 159-173.
18. **Ricci, AJ.**, Wu, Y-C., Fettiplace, R. (1998) The endogenous Ca²⁺ buffer and the time course of transducer adaptation in hair cells. *J. Neuroscience* 18:8261-8277.
19. **Ricci, AJ**, Correia, M.J. (1999) Electrical Response Properties of Avian Lagena Type II Hair Cells. *Am. J. Physiology* 45: R943-R953.
20. Wu, Y-C, **Ricci, AJ.**, Fettiplace, R. (1999) A model of calcium and transducer adaptation in auditory hair cells. *Journal of Neurophysiology* 82:2171-2181.
21. **Ricci, AJ.**, Gray-Keller, M., Fettiplace, R. (2000) Tonotopic variations of calcium signaling in turtle auditory hair cells. *Journal of Physiology* 524 (2)423-436.
22. **Ricci, AJ.**, Crawford, A.C. Fettiplace, R. (2000) Active hair bundle motion linked to fast transducer adaptation in auditory hair cells. *Journal of Neuroscience* 20 (19) 7131-7142.
23. Fettiplace, R., **Ricci, AJ.**, HACKNEY, CM., (2001) Clues to the cochlear amplifier from the turtle ear. *Trends in Neuroscience* 24(3): 169-175.
24. **Ricci, AJ.**, Crawford, A.C., Fettiplace, R.. (2002) Mechanisms of active hair bundle motion in auditory hair cells. *Journal of Neuroscience* 22(1) 44-52.
25. **Ricci, AJ** (2002) Fast adaptation regulates mean open time of transducer channels. *Journal of Neurophysiology* 87: 1738-1748.
26. Schnee, M, **Ricci, AJ** (2003) Biophysical and Pharmacological Characterization of Calcium Currents in Turtle Auditory Hair Cells. *J. Physiology* 549:697-717.
27. **Ricci, AJ** (2003) Active Hair Bundle Movements and the Cochlear Amplifier. *Journal of the American Academy of Audiology* 14: 325-338.
28. **Ricci, AJ.**, Crawford, A.C., Fettiplace, R. (2003) Tonotopic Variation in the Conductance of the Hair Cell Mechanotransducer Channel. *Neuron* 40:1-20.
29. Fettiplace, R., **Ricci, AJ.** (2003) Adaptation in auditory hair cells. *Current Opinions in Neurobiology* 13: 446- 451.

30. Farris, HE., LeBlanc, C., Goswami, J., **Ricci, AJ.** (2004) Probing the pore of the mechanotransducer channel in turtle auditory hair cells. *J. Physiol.* 588:769-792.
31. Goodman, MB., Lumpkin, EA., **Ricci, AJ.**, Tracey, WD., Kernan, M., Nicolson, T. (2004) Molecules and Mechanisms of Mechanotransduction. *J. Neuroscience* 24:9220-9222.
32. Rennie, KJ., Manning, KC., **Ricci, AJ.** (2004) Mechano-electrical transduction in turtle utricle. *Biomed. Sci. Instrum.* 40: 441-446.
33. Schofield, GG., **Ricci, AJ.** (2005) Electrophysiological characterization of C-terminal Kv4 channel fusion proteins. *Pflugers Arch* 450, 245-254.
34. Farris, HE. and **Ricci, AJ.** (2005). Voltage-clamp errors cause anomalous interaction between independent ion channels. *Neuroreport* 16, 943-947.
35. Schnee, ME., Lawton, DM., Furness, DN., Benke, TA. and **Ricci, AJ.** (2005). Auditory hair cell afferent fiber synapses are specialized to operate at their best frequencies. *Neuron* 47, 243-254.
36. **Ricci, AJ.**, Kennedy, HJ., Crawford, AC. and Fettiplace, R. (2005) The transduction channel filter in auditory hair cells. *J Neurosci* 25: 7831-7839.
37. De Gois, S., Schafer, MK., Defamie, N., Chen, C., **Ricci, AJ.**, Weihe, E., Varoqui, H, and Erickson, JD. (2005). Homeostatic scaling of vesicular glutamate and GABA transporter expression in rat neocortical circuits. *J Neuroscience* 25,7121-7133.
38. Waguespack, JR. and **Ricci, AJ.** (2005). Aminoglycoside ototoxicity: permeant drugs cause permanent hair cell loss. *J Physiol* 567, 359-360.
39. **Ricci, AJ.**, Kachar, B., Gale, J., VanNetten, S. (2006) Mechano-electric transduction: new thoughts on old ideas. *Journal of Membrane Biology* 209: 1-18.
40. Farris, HE., Wells, G., **Ricci, AJ.** (2006) The role of mechano-electric transduction and adaptation in setting the hair cell resting potential, *J. Neurosci.* 26:12526-12536.
41. Grimm, C., Cuajungco, MP., van Aken, AF., Schnee, ME., Jors, S., Kros, CJ., **Ricci, AJ.** and Heller, S. (2007) A helix-breaking mutation in TRPML3 leads to constitutive activity underlying deafness in the varitint-waddler mouse. *Proc Natl Acad Sci USA* 104: 19583-19588.
42. Waguespack, J., Salles, FT., Kachar, B., and **Ricci, AJ.** (2007) Stepwise morphological and functional maturation of mechanotransduction in rat outer hair cells. *J Neurosci* 27: 13890-13902.
43. Gubbels, SP., Woessner, DW., Mitchell, JC., **Ricci, AJ.**, Brigande, JV (2008) Functional auditory hair cells produced in the mammalian cochlea by in utero gene transfer, *Nature* 455, 537-41.

44. Prakash, R. and **Ricci, AJ.** (2008) Hair bundles teaming up to tune the mammalian cochlea. *Proc Natl Acad Sci USA* 105, 18651-2.
45. Beurg, M., Fettiplace, R., Nam, JH., **Ricci, AJ.** (2009) Localization of inner hair cell mechanotransducer channels using high speed calcium imaging, *Nature Neuroscience*, 12 (5) 553-558.
46. Xu, Z., **Ricci, AJ.**, Heller, S. (2009) Rethinking how hearing happens. *Neuron*, 62, 305-307.
47. Oshima, K., Shin, K., Peng, AW., **Ricci, AJ.**, Heller, S. (2010) Mechanosensitive hair cell-like cells from embryonic and induced pluripotent stem cells. *Cell*, 141, 704-716.
48. Peng, A.W., **Ricci, AJ.** (2010) Somatic motility and hair bundle mechanics, are both necessary for cochlear amplification? *Hearing Research*.
49. Wells, G., **Ricci, AJ** (2010) The interaction between electrical resonance and hair bundle resonance in establishing the filtering properties of turtle auditory hair cells.
50. Doll, JC., Peng, A., **Ricci, AJ.**, Pruitt, BL. (2011) New devices for investigating hair cell mechanical properties, in *What fire is in mine ears: Progress in auditory biomechanics*, edited by C. A. Shera, and E. Olson (AIP) 202-204.
51. Wells, GB. and **Ricci, AJ.** (2011) Exploring the role of mechanotransduction activation and adaptation kinetics in hair cell filtering using a Hodgkin-Huxley approach, in *What Fire is in Mine Ears: Progress in Auditory Biomechanics*, edited by C. A. Shera, and E. Olson (AIP) 245-251.
52. Kim, J., Pinsky, PM., **Ricci, AJ.**, Puria, S., and Steele, CR. (2011). Electostatic analysis of the lipid-membrane tenting deformation of inner-ear stereocillia, in *What Fire is in Mine Ears: Progress in Auditory Biomechanics*, edited by C. A. Shera, and E. Olson (AIP), pp. 50-53.
53. Peng, AW., Salles, FT., Pan, B., **Ricci, AJ**, (2011) Integrating the biophysical and molecular mechanisms of auditory hair cell mechanotransduction. *Nature Communications*.
54. Schnee, ME., Santos-Sacchi, J., Castellano-Munoz, M., Kong, J-H., **Ricci, AJ.**, (2011) vesicle trafficking underlies indefatigable release at the hair cell afferent fiber synapse. *Neuron* 70: 326-338.
55. Schnee, ME., Castellano-Munoz, M., Kong, J-H., Santos-Sacchi, J., **Ricci, AJ.**, (2011) Tracking vesicle fusion from hair cell ribbon synapses using a high frequency, dual sine wave stimulus paradigm. *Commun. Integr. Biol.* 4: 785-787.

56. Kim, J., Pinsky, P. M., **Ricci, AJ**, Puria, S., and Steele, C. R. (2011). Electostatic analysis of the lipid-membrane tenting deformation of inner-ear stereocillia, in: *What fire is in mine ears: Progress in auditory biomechanics*, edited by C. A. Shera, and E. Olson (AIP), pp. 50-53.
57. Alharazneh, A., Burko, J., Luk, L., Monfarad, A., Cheng, A., **Ricci, AJ** (2011) Aminoglycosides enter hair cells via mechanotransduction channels.
58. Peng, AW., **Ricci AJ**, (2011) Insight into cochlear amplification from a comparative perspective, *Hearing Research*.
59. Pan, B., Waguespack, J., Schnee, ME., Leblanc, C. and **Ricci, AJ**. (2012) Permeation properties of the hair cell mechanotransducer channel provide insight into its molecular structure. *J. Neurophysiol.* 107: 2408-2420.
60. Castellano-Munoz M, Peng AW, Salles FT, **Ricci AJ** (2012) Swept field laser confocal microscopy for enhanced spatial and temporal resolution in live-cell imaging. *Microscopy and microanalysis : the official journal of Microscopy Society of America, Microbeam Analysis Society, Microscopical Society of Canada* 18:753-760.
61. Pan B, Waguespack J, Schnee ME, LeBlanc C, **Ricci AJ** (2012) Permeation properties of the hair cell mechanotransducer channel provide insight into its molecular structure. *J Neurophysiol* 107:2408-2420.
62. Peng AW, Effertz T, **Ricci AJ** (2013) Adaptation of mammalian auditory hair cell mechanotransduction is independent of calcium entry. *Neuron* 80:960-972.
63. Ricci AJ, Bai JP, Song L, Lv C, Zenisek D, Santos-Sacchi J (2013) Patch-clamp recordings from lateral line neuromast hair cells of the living zebrafish. *J Neurosci* 33:3131-3134.
64. Schnee ME, Castellano-Munoz M, **Ricci AJ** (2013) Response properties from turtle auditory hair cell afferent fibers suggest spike generation is driven by synchronized release both between and within synapses. *J Neurophysiol* 110:204-220.
65. Vu AA, Nadaraja GS, Huth ME, Luk L, Kim J, Chai R, **Ricci AJ**, Cheng AG (2013) Integrity and regeneration of mechanotransduction machinery regulate aminoglycoside entry and sensory cell death. *PLoS One* 8:e54794.
66. Huth ME, Han KH, Sotoudeh K, Hsieh YJ, Effertz T, Vu AA, Verhoeven S, Hsieh MH, Greenhouse R, Cheng AG, **Ricci AJ** (2015) Designer aminoglycosides prevent cochlear hair cell loss and hearing loss. *The Journal of clinical investigation* 125:583-592.
67. Song Y, Xia A, Lee HY, Wang R, **Ricci AJ**, Oghalai JS (2015) Activity-dependent regulation of prestin expression in mouse outer hair cells. *J Neurophysiol* 113:3531-3542.

68. Alyono JC, Corrales CE, Huth ME, Blevins NH, **Ricci AJ** (2015) Development and characterization of chemical cochleostomy in the Guinea pig. *Otolaryngology-head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery* 152:1113-1118.
69. Nam, J., Peng, AW., **Ricci, AJ** (2015) Underestimated sensitivity of mammalian cochlear hair cells due to splay between stereociliary columns. *Biophysical Journal* 108 (11) 2633-2647. PMID 4457497
70. Effertz T, Scharr AL, **Ricci AJ** (2015) The how and why of identifying the hair cell mechano-electrical transduction channel. *Pflugers Archiv : European journal of physiology* 467:73-84.
71. Sundaresan S, Kong JH, Fang Q, Salles FT, Wangsawihardja F, **Ricci AJ**, Mustapha M (2016) Thyroid hormone is required for pruning, functioning and long-term maintenance of afferent inner hair cell synapses. *Eur J Neurosci* 43:148-161.
72. Castellano-Munoz M, Schnee ME, **Ricci AJ** (2016) Calcium-induced calcium release supports recruitment of synaptic vesicles in auditory hair cells. *J Neurophysiol* 115:226-239.
73. Peng, AW., Gnanasambandam, R., Sachs, F., **Ricci, AJ.**, (2016) Adaptation independent modulation of auditory hair cell mechanotransduction channel open probability implicates a role for the lipid bilayer. *Journal of Neuroscience* 36 (10) 2945-2956. PMID 4783497
74. Peng, AW., **Ricci, AJ** (2016) Glass probe stimulation of hair cell stereocilia. *Methods in Molecular Biology* 1427: 487-500. PMID 2725994
75. Meese S, Cepeda AP, Gahlen F, Adams CM, Ficner R, **Ricci AJ**, Heller S, Reisinger E, Herget M. (2017) Activity-Dependent Phosphorylation by CaMKII δ Alters the Ca₂₊ Affinity of the Multi-C₂-Domain Protein Otoferlin. *Front Synaptic Neurosci.* 2017 Oct 4;9:13. doi: 10.3389/fnsyn.2017.00013. eCollection 2017. PMID: 2904663
76. Effertz T, Becker L, Peng AW, **Ricci AJ.** (2017) Phosphoinositol-4,5-Bisphosphate Regulates Auditory Hair-Cell Mechanotransduction-Channel Pore Properties and Fast Adaptation. *J Neurosci.* 37(48):11632-11646. PMID: 29066559
77. O'Sullivan ME, Perez A, Lin R, Sajjadi A, **Ricci AJ**, Cheng AG. (2017) Towards the Prevention of Aminoglycoside-Related Hearing Loss. *Front Cell Neurosci.* 11:325. doi: 10.3389/fncel.2017.00325. eCollection 2017. Review. PMID: 29093664
78. Becker L, Schnee ME, Niwa M, Sun W, Maxeiner S, Talaei S, Kachar B, Rutherford MA, **Ricci AJ.** (2018) The presynaptic ribbon maintains vesicle populations at the **hair cell**

afferent fiber synapse. *Elife*. 2018 Jan 12;7. pii: e30241. doi: 10.7554/eLife.30241. PMID: 29328021

79. Morgan CP, Zhao H, LeMasurier M, Xiong W, Pan B, Kazmierczak P, Avenarius MR, Bateschell M, Larisch R, **Ricci AJ**, Müller U, Barr-Gillespie PG. (2018) TRPV6, TRPM6 and TRPM7 Do Not Contribute to Hair-Cell Mechanotransduction. *Front Cell Neurosci*. 20;12:41. PMID: 29515374
80. Nuttall AL, **Ricci AJ**, Burwood G, Harte JM, Stenfelt S, Cayé-Thomasen P, Ren T, Ramamoorthy S, Zhang Y, Wilson T, Lunner T, Moore BCJ, Fridberger A. (2018) A mechano-electrical mechanism for detection of sound envelopes in the hearing organ. *Nat Commun*. 9(1):4175. PMID:30302006
81. Ó Maoiléidigh D, **Ricci AJ**. (2019) A Bundle of Mechanisms: Inner-Ear Hair-Cell Mechanotransduction. *Trends Neurosci*. 42(3):221-236. Review. PMID: 3066171
82. Wang T, Niwa M, Sayyid ZN, Hosseini DK, Pham N, Jones SM, **Ricci AJ**, Cheng AG. (2019) Uncoordinated maturation of developing and regenerating postnatal mammalian vestibular **hair cells**. *PLoS Biol*. doi: 10.1371/journal.pbio.3000326. eCollection PMID: 31260439
83. Caprara GA, Mecca AA, Wang Y, **Ricci AJ**, Peng AW. (2019) **Hair** Bundle Stimulation Mode Modifies Manifestations of Mechanotransduction Adaptation. *J Neurosci*. 2019 39(46):9098-9106. PMID: 31578232
84. Talaei, S., Schnee, M.E., Aaron, K.A., Ricci, A.J., (2019) Dye Tracking Following Posterior Semicircular Canal or Round Window Membrane Injections Suggests a Role for the Cochlea Aqueduct in Modulating Distribution *Front. Cell. Neurosci.*, 30_ <https://doi.org/10.3389/fncel.2019.00471>

Abstracts: (selected)

1. Selman, W., Lamanna, J., **Ricci, AJ.**, Crumrine, R., Lust, W., Ratcheson, R. (1987) Evolution of Ischemic Brain Damage Following Middle Cerebral Artery Occlusion in the Rat. *Journal of Cerebral Blood Flow and Metabolism*, 7: s12.
2. Lust, W., **Ricci, AJ.**, Sternau, L., Whittingham, T., Ratcheson, R. (1987a) Metabolic Response to a Glial Enriched Region of the Brain to Ischemia. *Stroke*, 18:14.
3. Lust, W., **Ricci, AJ.**, Lamanna, J., Sternau, L., Ratcheson, R. (1987b) Metabolic Response of a Glial Enriched Region of the Hippocampus to Stroke. *Journal of Cerebral Blood Flow and Metabolism*, 7: s127.

4. Rodziewicz, G., Selman, W., **Ricci, AJ.**, Lust, W., Ratcheson, R. (1987c) Metabolic Penumbra: A Small Volume. *Stroke*, 18: 14.
5. Assaf, H., **Ricci, AJ.**, Whittingham, T., Lamanna, J., Ratcheson, R., Lust, W., (1989) Factors Affecting Lactate Release from Hippocampal Slices. Abstracts for the Society of Neuroscience 15, 855.
6. Sternau, L., Lust, W., **Ricci, AJ.**, Ratcheson, R. (1989a) Pharmacological Protection Against Delayed Neuronal Death Elicited by Ischemia. *Journal of Cerebral Blood Flow and Metabolism*, 7: s147.
7. **Ricci, AJ.**, Norris, C., Guth, P. (1989) 4-Aminopyridine in the Semicircular Canal. Abstracts for Society for Neuroscience, 25: 517.
8. Norris, C., Pantoja, M., **Ricci, AJ.**, Fermin, C., Guth, P. (1989) The Influence of Transmitter-Depleting Agents on Morphology and Neurophysiology of the Semicircular Canal of the Frog. Abstracts of Inner Ear Biology 26.
9. **Ricci, AJ.**, Norris, C., Guth, P. (1990a) A Role for Cyclic AMP in the Semicircular Canal. Abstracts from the Thirteenth ARO Midwinter Meeting, 13: 52.
10. **Ricci, AJ.**, Norris, C., Guth, P. (1990b) Semicircular Canal Hair Cell Response to ACh. Abstracts for the Society for Neuroscience, 20.
11. Aubert, A., **Ricci, AJ.**, Norris, C., Guth, P. (1991) Differential Modulation of Spontaneous and Mechanically-Evoked Transmitter Release: A Novel Hypothesis. Abstracts from the Association for Research in Otolaryngology, 14.
12. Guth, P., Aubert, A., **Ricci, AJ.**, Norris, C., (1991a) Differential Modulation of Spontaneous and Evoked Neurotransmitter Release from Hair Cells: Some Novel Hypotheses. Abstracts from The 28TH Workshop on Inner Ear Biology.
13. **Ricci, AJ.**, Norris, C., Guth, P. (1991b) Current-Clamp Responses of Vestibular Hair Cells. Abstracts from Society for Neuroscience, 21.
14. **Ricci, AJ.**, Woolverton, S., Aubert, A., Norris, C., Guth, P. (1991c) Responses of the Isolated Semicircular Canal to Electrical Stimulation. Abstracts for the Association for Research in Otolaryngology, 14.
15. Norris, C., **Ricci, AJ.**, Guth, P. (1992a) Multiple Inactivating Currents can be Observed in Hair Cells Isolated from the Semicircular Canal of the Frog. Abstracts for the Biophysical Society.
16. Norris, C., **Ricci, AJ.**, Guth, P. (1992b) Semicircular Canal Hair Cells Differ in Their Peak Voltage Response as Well as the Stimulus Required to Obtain this Peak Response. Abstracts for the Association for Research in Otolaryngology, 17.
17. **Ricci, AJ.**, Norris, C., Guth, P. (1992) Semicircular Canal Hair Cells Fall into Three Classes Based on Their Temporal Response to Current Injection. Association for Research in Otolaryngology, 17.

18. Norris, C., **Ricci, AJ.**, Guth, P. (1992) Hair Cells Isolated from the Semicircular Canal of the Frog Have Two Rapidly Inactivating Outward Conducting Potassium Channels. Meeting on the Molecular Biology of Hearing and Deafness, San Diego, California.
19. **Ricci, AJ.**, Erostopova, C., Bobbin, R., Norris, C. (1993) A Comparison of Hair Cell Electrophysiologic and Morphologic Characteristics. Abstracts for the Association for Research in Otolaryngology.
20. Correia, MJ., **Ricci, AJ.**, Rennie, KJ., (1994) Characteristics of the Basolateral Currents in Type I and Type II Hair Cells Dissociated from the Pigeon Utricle. Abstracts for the Association for Research in Otolaryngology 17th Mid-winter Meeting, 509.
21. **Ricci, AJ.**, Rennie, KJ., Correia, MJ. (1994) Morphological Comparison of Hair Bundles Isolated From Avian Hair Cells. Abstracts for the Association for Research in Otolaryngology 17th Mid-winter meeting, 509.
22. Rennie, KJ., **Ricci, AJ.**, Correia, MJ. (1994) Potential-Driven Movements of Type I Vestibular Hair Cells. Abstracts for the Biophysical Society Meeting.
23. Rennie, KJ., **Ricci, AJ.**, Correia, MJ. (1994) Calcium Currents in Isolated Mammalian Semicircular Canal Hair Cells. Abstracts for the First International Symposium on Inner Ear Neuropharmacology in Montpellier, France.
24. Rennie, KJ., **Ricci, AJ.**, Correia, MJ. (1994) Voltage-Dependent Motility in Type I Vestibular Hair Cells. Presented at the 31st Workshop on Inner Ear Pharmacology in Montpellier, France.
25. Rennie, KJ., **Ricci, AJ.**, Correia, MJ. (1994) Calcium Currents in Isolated Mammalian Semicircular Canal Hair Cells. Abstracts for the First International Symposium on Inner Ear Neuropharmacology in Montpellier, France.
26. **Ricci, AJ.**, Correia, MJ. Rennie, KJ. (1994) Morphological Characteristics of Isolated Avian Type I Hair Cells. Abstracts for the 31st Workshop on Inner Ear Pharmacology in Montpellier, France.
27. **Ricci, AJ.**, Rennie, KJ., Correia, MJ. (1994) Electrophysiology of Avian Lagena Type I and Type II Hair Cells. Abstracts for the First International Symposium on Inner Ear Neuropharmacology in Montpellier, France.
28. Correia, MJ. Rennie, KJ. **Ricci, AJ.** (1994) Potassium Currents in Type I and Type II Vestibular Hair Cells in Pigeon and Gerbil. Presented at the First International Symposium on Inner Ear Neuropharmacology in Montpellier, France.
29. Correia, MJ., **Ricci, AJ.**, Rennie, K. (1994) Ionic Currents in Type I and Type II Vestibular Hair Cells in the Pigeon Utricle. Abstracts for the 31st Workshop on Inner Ear Pharmacology in Montpellier, France.
30. **Ricci, AJ.**, Correia, MJ. (1994) Frequency Response of Avian Vestibular Hair Cells to Mechanical Stimulation. Abstracts for the Annual ASGSB Meeting in San Francisco, Calif.

31. **Ricci, AJ.**, Rennie, KJ., Correia, MJ. (1995) An Electrophysiologic Comparison Between Type I Avian Vestibular End Organs. Abstracts for the Fifth Annual Spring Brain Conference in Sodona, Arizona.
32. **Ricci, AJ.**, Rennie, KJ., Correia, MJ. (1995). An Electrophysiologic Comparison of Type I Avian Hair Cells of Different Inner Ear End Organs. Abstracts from the Eighteenth ARO Midwinter Meeting, 18: 162.
33. **Ricci, AJ.**, Fettiplace, R. (1997) The effects of calcium buffers on mechano-electrical transduction currents in turtle hair cells. Abstracts from Biophysical Journal, 72:A266.
34. **Ricci, AJ.**, Fettiplace, R. (1997) Calcium permeation of the mechanotransducer and its relation to the composition of endolymph. Abstracts from the Society for Neuroscience.
35. **Ricci, AJ.**, Fettiplace, R. (1998) Factors which regulate the rate of transducer adaptation. Abstracts from the Association for Research in Otolaryngology.
36. Fettiplace, R., **Ricci, AJ.** (1998) Adaptation of mechanotransducer currents in turtle hair cells. Abstracts from the Association for Research in Otolaryngology.
37. **Ricci, AJ.**, Fettiplace, R. (1999) Variations in the endogenous Calcium buffering in hair cells. Abstracts from the Association for Research in Otolaryngology.
38. **Ricci, AJ.**, Gray-Keller, M., Fettiplace, R. (1999) Tonotopic variations in hair cell calcium signalling. Abstracts from Society for Neuroscience.
39. **Ricci, AJ.**, Fettiplace, R. Crawford, AC. (2000) Active hair bundle movements during hair cell depolarization. Abstracts from the Association for Research in Otolaryngology.
40. Fettiplace, R., **Ricci, AJ.**, Crawford, AC. (2000) Calcium, fast transducer adaptation and active hair bundle movements. Abstracts from the Association for Research in Otolaryngology.
41. **Ricci, AJ.**, Crawford, AC., Fettiplace, R. (2000) Hair bundle movements and fast transducer adaptation in auditory hair cells. Abstracts from the Society for Neuroscience.
42. **Ricci, AJ.**, Crawford, AC., Fettiplace, R. (2001) Mechanisms of active hair bundle motion in auditory hair cells. Association for Research in Otolaryngology.
43. Fettiplace, R., Hackney, CM., Jones, EMC, **Ricci, AJ.**, (2001) Molecular Correlates of Tonotopy in the Turtle Cochlea. Molecular Biology of Hearing and Deafness.
44. Schnee, M., **Ricci, AJ.** (2001) Calcium channels in turtle auditory hair cells. Association for Research in Otolaryngology.
45. **Ricci, AJ.** (2001) Differences in mechano-electric transducer channel kinetics underlie tonotopic distribution of fast adaptation in turtle auditory hair cells. Abstract for Society for Neuroscience.

46. Schnee, M., **Ricci, AJ.** (2002) Calcium channel inactivation in turtle auditory hair cells. Association for Research in Otolaryngology
47. **Ricci, AJ.** (2002) Pharmacological Clues to the Nature of the Mechano-electric Transducer Channel. Association for Research in Otolaryngology
48. LeBlanc, C., **Ricci, AJ.** (2002) Salicylate affects on mechano-electric transduction. Association for Research in Otolaryngology
49. Schnee, ME., **Ricci, AJ.** (2003) Capacitance measurements from turtle auditory hair cells. Abstracts from the Society for Neuroscience.
50. Farris, HE., LeBlanc, C., **Ricci, AJ.** (2003) Sensitivity of the hair cell MET channel to block by amine containing compounds. Association for Research in Otolaryngology
51. Rennie, KJ and **Ricci AJ.** (2003) Mechanoelectrical transduction and basolateral currents in hair cells of the turtle utricle. Association for Research in Otolaryngology.
52. Schnee, ME., Lawton, DM., Furness, D and **Ricci, AJ.** (2004) Tonotopic differences in synaptic release as measured by membrane capacitance changes in hair cells from the turtle auditory papilla. Association for Research in Otolaryngology.
53. Farris, HE., Goswami, J., **Ricci, AJ.** (2004) Characterizing the pore of the mechanotransducer channel in turtle auditory hair cells. Association for Research in Otolaryngology.
54. Kennedy, HJ., **Ricci, AJ.**, Crawford, AC. and Fettiplace, R. (2004) Tonotopic Variation in Mechanotransducer Current Properties in Mammalian Cochlear Hair Cells. Molecular Biology of Hearing and Deafness
55. Schnee, ME, Lawton, DM, Furness, DN, Benke, T, **Ricci, AJ.** (2005) Dense body regulation of synaptic vesicle trafficking controls the ability of the auditory hair cell afferent fiber synapse to operate across frequencies. Association for Research in Otolaryngology.
56. Waguespack, J., **Ricci, AJ.** (2005) Probing the internal pore of the mechanotransducer channel. Gordon Research Conference.
57. Farris, HE., **Ricci, AJ.** (2005) Mechanoelectric transduction and adaptation set the resting potential of turtle auditory hair cells. Society for Neuroscience
58. **Ricci, AJ.**, Waguespack, J. (2006) Characterizing the internal face of the turtle auditory hair cells mechanotransducer channel. Association for Research in Otolaryngology.

59. Farris, HE., Wells, G., **Ricci, AJ.** (2006) Mechanoelectric Transduction and Adaptation Set Hair Cell Resting Potential and Allow an Estimate of Endolymphatic Ca²⁺ Concentrations. Association for Research in Otolaryngology.
60. Waguespack, J., Kachar, B., **Ricci, AJ.** (2007) Maturation of Mechanotransduction in Cochlea Outer Hair Cells from Rat Organotypic Cultures. Association for Research in Otolaryngology.
61. Schnee, M., Benke, T., **Ricci, AJ.** (2008) Synaptic Specializations in Turtle Auditory Hair Cells. Association for Research in Otolaryngology.
62. **Ricci, AJ.**, Beurg, M., Nam, JH., Fettiplace, R. (2009) Calcium imaging of hair cell mechanotransducer channels. IUPS Society, Japan
63. Schnee, ME., Santos-Sacchi, J., **Ricci, AJ.** (2010) Multiple kinetic components of release at the hair cell afferent fiber synapse implicate calcium-dependent vesicle trafficking. Association for Research in Otolaryngology
64. Pan, B., Waguespack, J., LeBlanc, C., Schnee, ME., **Ricci, AJ.** (2010) Characterizing the inner face of the mechanotransducer channel. Association for Research in Otolaryngology.
65. **Ricci, AJ.** (2010) Localizing the mechanotransducer channels to the tops of rat cochlea hair cell stereocilia using high speed calcium imaging. Association for Research in Otolaryngology.
66. Alharazneh, A., Luk, L., Monfarad, A., Cheng, A., **Ricci, AJ.** (2010) Aminoglycoside ototoxicity ameliorated with mechanotransducer channel blockers. Association for Research in Otolaryngology.
67. Luk, L., Alharazneh, A., Cheng, A., **Ricci, AJ.** (2010) Aminoglycosides rapidly and selectively enter hair cells, largely via mechanotransducer channels. Association for Research in Otolaryngology
68. Pan, B., Waguespack, J, Schnee, ME., and **Ricci AJ** (2010) Characterizing the inner face of the hair cell mechanotransducer channel. Association for Research in Otolaryngology.
69. Wells, G., **Ricci., AJ.** (2010) Modeling the interaction between hair bundle filtering and electrical resonance. Association for Research in Otolaryngology.
70. Oshima, K., Peng, AW., **Ricci, AJ.**, Heller, S. (2010) Functional hair cell-like cells from embryonic and induced pluripotent stem cells. Association for research in Otolaryngology
71. Doll, JC., Peng, A., **Ricci, AJ.**, Pruitt BL. (2011) New Devices for Investigating Hair Cell Mechanical Properties. International Mechanics of Hearing Workshop,

72. Schnee, ME., Kong, J-H., Castellano-Munoz, M., Santos-Sacchi, J., **Ricci, AJ.**, (2011) Calcium regulation of vesicle trafficking at hair cell ribbon synapses. Association for Research in Otolaryngology (ARO). Baltimore, MD
73. Schnee, ME., Castellano-Munoz, M., Kong, J-H., Santos-Sacchi, J., **Ricci, AJ.**, (2011) Superlinear release at a hair cell synapse may be related to calcium-induced calcium release. ENT Retreat. Stanford, CA
74. Fang, Q., Kong, J-H., Duncan, RK., Camper, S., **Ricci, AJ.**, Mustapha, M. (2011) Thyroid hormone is required for cochlear synapse formation, maturation and function. ENT Retreat. Stanford, CA
75. Castellano-Muñoz, M., Schnee, ME., Kong, J-H., **Ricci, AJ.** (2011) Calcium-induced calcium release modulates the recruitment of synaptic vesicles in auditory hair cells. Ribbon Synapses Symposium, Goettingen, Germany.
76. Castellano-Muñoz, M., Schnee, ME., Santos-Sacchi, J., Kong, J-H., **Ricci, AJ.** (2011) Potential role of stored calcium in the trafficking of vesicles to the ribbon synapse. Spanish Society for Neuroscience (SENC), Salamanca, Spain.
77. Huth, ME., Alharazneh, A., Luk, L., Cheng, AG., **Ricci, AJ.** (2011) Aminoglycosides enter cochlear hair cells and nerve fibers. Stanford Otolaryngology Research Retreat.
78. Huth, ME., Alharazneh, A., Luk, L., Cheng, AG., **Ricci, AJ.** (2011) Gentamicin ototoxicity requires functional mechanotransducer channels. American Academy of Otolaryngology (AAO).
79. Alharazneh, A., Luk, L., Huth, ME., Monfared, A., Steyger, PS., Cheng, AG., **Ricci, AJ.** (2011) Functional Hair Cell Mechanotransducer Channels Are Required for Aminoglycoside Ototoxicity. PLoS ONE.
80. Huth, ME., **Ricci, AJ.**, Cheng, AG. (2011) Mechanisms of Aminoglycoside Ototoxicity and Targets of Hair Cell Protection. International Journal of Otolaryngology.
81. Peng, AW., Effertz, T., **Ricci, AJ.** (2012) Comparisons of hair cell mechanotransduction adaptation in lower vertebrates and mammals. Force Transduction & Emerging Ion Channels, Berlin, Germany.
82. Peng, AW., Doll, JC., **Ricci, AJ.** (2012) The study of activation kinetics in the mammalian auditory system. Association for Research in Otolaryngology.
83. Kong, J-H., **Ricci, AJ.** (2012) Developmental maturation of vesicle trafficking at mammalian hair cell ribbon synapses. Association for Research in Otolaryngology.
84. Castellano-Munoz, M., Schnee, ME., Kong, J-H., **Ricci, AJ.** (2012) Is calcium-induced calcium release promoting synaptic vesicle recruitment in auditory hair cell? Association for Research in Otolaryngology (ARO).

85. Vu, AA., Huth, ME., Nadaraja, GS., Kim, J., Luk, L., Chai, R., **Ricci, AJ.**, Cheng, AG. (2012) Hair cell tip links mediate aminoglycoside entry and toxicity. Association for Research in Otolaryngology (ARO).
86. Peng, A.W., Effertz, T., **Ricci, A.J.**, (2013) Cochlear adaptation is not driven by calcium entry. Association for Research in Otolaryngology (ARO).
87. Kim, J., Pinsky, P., Steele, C., Puria, S., **Ricci, A.J.** (2013) Stereocilia lipid membrane: Nonlinear hair-bundle mechanics and channel activation. Association for Research in Otolaryngology (ARO).
88. Schnee, M.E., **Ricci, A.J.** (2014) Characterization of the Primary Auditory Synapse in the Turtle Using Paired Recordings and Real Time Cell Capacitance Measurements. Association for Research in Otolaryngology (ARO).
89. Peng, A.W., **Ricci, A.J.**, (2014) A Novel Mechanism to Regulate the Cochlear Mechanotransduction Operating Point. Association for Research in Otolaryngology (ARO).
90. Effertz, T., **Ricci, A.J.** (2014) Effects of Lipid Bilayer Alterations on Transduction Currents of Mammalian Hair Cells. Association for Research in Otolaryngology (ARO).
91. Schnee, M.E., **Ricci, A.J.**, (2014) Quantal Release at the Auditory Hair Cell Synapse in the Turtle. Association for Research in Otolaryngology (ARO).
92. Iwasa, K., Kong, J., H., **Ricci, A.J.** (2015) Maturation of Inner Hair Cell Calcium Signaling. Association for Research in Otolaryngology (ARO).
93. Soons, J., **Ricci, A.J.**, Steele, C., Puria, S. (2015) Mouse Organ of Corti Cytoarchitecture from Base to Apex, Imaged In Situ With Two-Photon Microscopy. Association for Research in Otolaryngology (ARO).
94. Song, Y., Wang, R., **Ricci, A.J.**, Oghalai, J. (2015) Functional Prestin Expression Varies With Tectorial Membrane Malformations. Association for Research in Otolaryngology (ARO).
95. Huth, M., Han, KH., Soutadeh, VK., Verhoeven, S., Vu, A., Greenhouse, R., Cheng, A., **Ricci, A.J.** (2015) Targeted Aminoglycoside Structure Reduce Ototoxic Side Effects. Association for Research in Otolaryngology (ARO).
96. Iwasi, K., **Ricci, A.J.** (2015) Passive Nature of Mammalian Hair Bundle Adaptation. Association for Research in Otolaryngology (ARO).

97. **Ricci, A.J.**, Peng, A.W., Effertz, T. (2015) Cochlear Hair Cell Mechanotransduction is Specialized for Speed by Eliminating Calcium Dependent Adaptation while Incorporating a Novel Lipid Based Mechanism for Modulating Resting Open Probability. Association for Research in Otolaryngology (ARO).
98. Nam, JH., Peng, A.W., **Ricci, A.J.**, (2015) Hair Bundle Coherence Dictates Response to Mechanical Stimulations. Association for Research in Otolaryngology (ARO).
99. Peng, A.W., Gnanasambandam, R., Sachs, F., **Ricci, A.J.** (2015) Modulation of Rat Auditory Hair Cell Mechanotransduction Channel Resting Open Probability Via an Adaptation Independent Mechanism. Association for Research in Otolaryngology (ARO).
100. Effertz, T., **Ricci, A.J.** (2016) Phosphoinositol-4,5-bisphosphate is required for normal cochlea hair cell function Association for Research in Otolaryngology (ARO).
101. Schnee, M.E., **Ricci, A.J.**, (2016) Hair cells with reduced otoferlin lack a superlinear capacitance response. Association for Research in Otolaryngology (ARO).
102. Steiner, G., Soons, J., **Ricci, A.J.**, Puria, S. (2016) Cytoarchitecture of the Gerbil Organ of Corti from the Apex, Determined Using In Situ TwoPhoton Imaging. Association for Research in Otolaryngology (ARO).
103. Peng, A.W., **Ricci, A.J.** (2016) Characterization of Fluid Jet Stimulation of Mammalian Cochlear Hair Bundles. Association for Research in Otolaryngology (ARO).
104. O'Sullivan M., E., Hasan DeMirici, H., Huth, M., Vu, A., Perez, A.C., Effertz, T., Greenhouse, R., Cheng, A., **Ricci, A.J.**, (2017) Structure Activity Relationships Between Novel Non-ototoxic Aminoglycosides and the Bacterial Ribosome. Association for Research in Otolaryngology (ARO).
105. Peng, A.W., **Ricci, A.J.**, (2017) Reconciling Adaptation Mechanisms in Mammalian Cochlear Hair Bundles. Association for Research in Otolaryngology (ARO).
106. Schnee, M.E., Niwa, M., Becker, L., Talaei, S., Sun, W., Rutherford, M., Kachar, B., **Ricci, A.J.**, (2017) Deletion of the RIBEYE Specific A Domain Reduces Synaptic Release in Mouse Inner Hair Cells.
107. Becker, L., Talaei, S., Sun, W., Rutherford, M., Schnee, M.E., Niwa, M., Maxeiner, S., Kachar, B., **Ricci, A.J.** (2017) What Is the Ribbon Needed For? Functional Deletion of RIBEYE Leads to a Mild Auditory Phenotype Association for Research in Otolaryngology (ARO).

108. Wang, Y., Steele, C., Puria, S., **Ricci, A.J.** (2017) Inner Hair Cell Bundle Movements Characterized in situ with Mechanical Stimulation of the Stapes. Association for Research in Otolaryngology (ARO).
109. Frolenkov, G.I., Stepanyan, R., **Ricci, A.J.**, Grossheim, M. (2017) Overstimulation-induced Damage to Stereocilia Tips Causes Loss of Resting Tension in the Mechanotransducer of the Mammalian Auditory Hair Cells. Association for Research in Otolaryngology (ARO).
110. **Ricci, A.J.**, Effertz, T., Becker, L. (2017) Manipulation of phosphoinositol-4,5-bisphosphate Membrane Levels Effects Met-channel Pore Properties of Inner Hair Cells. Association for Research in Otolaryngology (ARO).