

Gerald R. Popelka, Ph.D.

October 1, 2019

1. Personal Information

- a. Gender: Male
- b. Birth date: October 16, 1943
- c. Birth place: Cleveland, Ohio USA

2. Citizenship

United States of America
Standard visa

3. Address

Department of Radiology
300 Pasteur Drive, S-052
Stanford University
Stanford, CA 94305-5105 USA
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Web: <https://profiles.stanford.edu/gerald-popelka?tab=bio>

4. Present Position

2004- School of Medicine, Stanford University
Professor of Otolaryngology (Consulting 2004-)
Professor of Neurosurgery (Adjunct 2017-2018)
Chief of Audiology (2005-2015)
Senior Scientist (Radiology 2018-)

5. Education

- a. Undergraduate
 - 1968 B.A. Experimental Psychology Kent State University
Kent, Ohio
- b. Graduate
 - 1970 M.A. Audiology Kent State University
Kent, Ohio
 - 1974 Ph.D. Communication Sciences University of Wisconsin,
Madison, Wisconsin
- c. Postgraduate
 - 1976-78 Postdoctoral Fellowship University of California-Los Angeles
Otolaryngology
Los Angeles, California

6. Previous Positions

1974-1976 Assistant Professor of Otolaryngology
Department of Otolaryngology
New York University School of Medicine
New York, New York

1975-1976 Assistant Professor of Communication Sciences
City University of New York
New York, New York

1976-1978 Post Doctoral Fellow
Department of Otolaryngology
UCLA School of Medicine
Los Angeles, California

1977-1979	Assistant Professor of Audiology Department of Special Education California State University Los Angeles, California
1980-1985	Associate Professor of Audiology Speech & Hearing Department College of Arts & Sciences Washington University St. Louis, Missouri
1980-1996	Head of Audiology Central Institute for the Deaf St. Louis, Missouri
1985-2000	Professor of Audiology Speech & Hearing Department College of Arts & Sciences Washington University St. Louis, Missouri
1989-1996	Director of Professional Education Central Institute for the Deaf St. Louis, Missouri
1996-2000	Professor of Communication Sciences Graduate Faculty, Rehabilitation Sciences School of Medicine Washington University St. Louis, Missouri
2000-	Adjunct Professor of Otolaryngology Department of Otolaryngology School of Medicine Washington University St. Louis, Missouri
2000-2004	Vice President Research and Development Director of Scientific Research Everest Biomedical Instruments St. Louis, Missouri

7. University Appointments and Committees

a. Washington University College of Arts & Sciences

1983-1989	Speech & Hearing Library Committee (Chair)
1985-1999	Washington University Graduate Council Representative
1988-1996	Washington University Animal Care and Use Committee
1989-1996	Speech & Hearing Admissions Committee (Chair)
1989-1996	Speech & Hearing Faculty Promotions Committee (Chair)
1989-1996	Speech & Hearing Curriculum Committee
1989-1996	Speech & Hearing Recruitment Committee (Chair)
1995-1997	Washington University Graduate Council Library Committee (Chair)
1997-1999	Washington University Graduate Council Executive Committee
1998-1999	Washington University Graduate Council Teaching Assistant Committee (Chair) (Developed Summer Workshop)

b. Washington University School of Medicine

1996-2000	Rehabilitation Sciences World Wide Web Committee
1996-1999	Rehabilitation Sciences Administration Council
1996-1999	Rehabilitation Sciences Graduate Faculty Committee (Chair)
1996-1997	Rehabilitation Sciences Graduate Assistantship Committee
1996-1997	Rehabilitation Sciences Resource Committee (Chair)
1997-1999	Rehabilitation Sciences Promotion and Tenure Committee
1997-1999	Rehabilitation Sciences Resource Committee
1996-1999	Rehabilitation Sciences Graduate Curriculum Committee (Chair)
1996-1999	Rehabilitation Sciences Graduate Admissions Committee (Chair)

c. Stanford University School of Medicine

2004-2015	Chief of Audiology
2007-	Faculty Affiliate, Stanford Bio-X
2007-	Dissertation Committees (four total)
2008-2010	Faculty Member of Executive Board Johnson Center for Pregnancy and Newborn Services
2009-	Co-Director and Co-Founder, Stanford Balance Center
2012-	Faculty Member, Advisory Council, Stanford Center on Longevity
2013-	Pre-Major Newcomer Advisor (8 undergraduate students/year)
2015-	Faculty Affiliate, Stanford Center for Population Health Sciences
2015-	Faculty Affiliate, Stanford Wu Tsai Neurosciences Institute
2018-	Faculty Member, Stanford Wearable Electronics Initiative, eWEAR
2019-	Faculty Member, Stanford Center for Artificial Intelligence in Medicine & Imaging, AIMI

8. Certification and Licenses

1970-	Certificate of Clinical Competence, Audiology (CCC-A), American Speech-Language-Hearing Association
1980-2004	Licensed Clinical Audiologist, State of Missouri
2005-	Licensed Clinical Audiologist, State of California

9. Military Service

1964-1970	Ohio National Guard, Honorably Discharged
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10. Honors and Awards

1986	Awarded Certificate of Appreciation from the American Speech-Language-Hearing Association
1987	Elected Fellow of the American Speech-Language-Hearing Association
1992	Awarded the Knud Terkildsen Research Fellowship
1994	Elected to Executive Council, Association for Research in Otolaryngology
1994	Elected Editor, Association for Research in Otolaryngology
1997	Awarded a Special Citation from the Association for Research in Otolaryngology
1997	Awarded Silver Certificate from the Acoustical Society of America
1997	Elected Editor, Association for Research in Otolaryngology

- 2004- Awarded Fellow, American Academy of Audiology
- 2000 Awarded Special Citation for Editor from Association for Research in Otolaryngology
- 2007 Awarded Certificate of Appreciation from the Association for Research in Otolaryngology for founding the *Journal of the Association for Research in Otolaryngology*
- 2015 Awarded Life Member, American Speech-Language-Hearing Association
- 2016 Nominated for the 2016 Editors' Award by the Editorial Board of *Ear and Hearing*, the journal with the highest impact factor in otolaryngology, for the article, Margolis, RH, Wilson, RH, **Popelka**, GR, Eikelboom, RH, Swanepoel, D and Saly, GL: Distribution Characteristics of Air-Bone Gaps: Evidence of Bias in Manual Audiometry; *Ear & Hearing*, 37(2):177-188, 2016

11. Editorial Responsibilities

- 1986-1996 Member of Editorial Board: *The Laryngoscope*
- 1988-2000 Editor: Association for Research in Otolaryngology
- 1991-2016 Member of Editorial Board: *Journal of Communication Disorders*
- 1999-2006 Co-Chair of Publication Committee: *Journal of the Association for Research in Otolaryngology*
- Editorial Consultant: (Peer reviewer of research papers)
- 1980-1990 *Journal of Speech and Hearing Disorders*
- 1980-2002 *Journal of Speech and Hearing Research*
- 1983- *Annals of Otology, Rhinology, & Laryngology*
- 1983- *Acta Oto-Laryngologica*
- 1986- *Laryngoscope*
- 1988- *Hearing Research*
- 1989-1990 *Journal of the Academy of Rehabilitative Audiology*
- 1990-1996 *Journal of Clinical Audiology*
- 1980- *Journal of the Acoustical Society of America*
- 1990- *Journal of Communication Disorders*
- 1993- *Ear & Hearing*
- 1999- *New England Journal of Medicine*
- 2004- *Journal of Otology & Neurotology*
- 2005- *Audiology & Neurotology*
- 2006 *National Institute for Occupational Safety and Health*
- 2009- *International Journal of Audiology*
- 2010- *Trends in Amplification*
- 2010- *Magnetic Resonance in Medicine*
- 2013- *IEEE Transactions on Biomedical Engineering*
- 2014- *BioMed Research International*
- 2017- *PLOS ONE*
- 2017- *Neuroscience Letters*
- 2019- *Interactive, Mobile, Wearable and Ubiquitous Technologies*

1980-	Reviewer, Grant proposals, National Institutes of Health AUD Study Section 1980, Houston, Texas, site visit 1983, San Francisco, California, site visit 1993, 2001, 2002 (Ad Hoc)
1983-1990	Member of Working Group: Audiometric Evaluation of Electroacoustic Characteristics, American Speech- Language-Hearing Association
1983-1994	Member of Working Group S.3: Aural Acoustic Immittance, American National Standards Institute
1997-2000	Reviewer, Grant proposals, Paralyzed Veteran's of America
2000	Reviewer, Grant proposals, Association of Teachers of Preventative Medicine
1998	Reviewer, Grant proposals, James S. McDonnell Foundation
1999-2002	Reviewer, Grant proposals, Tinnitus Research Consortium
2007	Reviewer, Grant proposals, Ministry of Research and Innovation, Ontario, Canada
2009	Reviewer, Submitted manuscripts, Middle Ear Mechanics and Research in Otolaryngology Bi-annual meeting, Stanford University, Stanford CA
2010	Reviewer, Grant Proposals. Swiss National Science Foundation, Bern, Switzerland
2011-2015	Chair, Task Force for Standardized Reporting of Audiologic Results, American Academy of Audiology

12. Professional Societies and Organizations

1968-	Member, Acoustical Society of America
1968-	Member, American Speech-Language-Hearing Association
1978-	Member, Association for Research in Otolaryngology
1997-2000	Member, Society for Neuroscience
1999-	Member, American Auditory Society
2004-	Member, American Academy of Audiology

13. Major Invited Professorships and Lectureships

1. **Popelka, G:** Computer assisted hearing aid assessment for the clinician. 1982; American Academy of Otolaryngology, New Orleans, Louisiana
2. **Popelka, G:** Microprocessor assisted hearing aid assessment. 1984; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
3. **Popelka, G:** Cochlear implants in children. 1985; UCLA School of Medicine, Los Angeles, California

4. **Popelka, G:** New developments in hearing aid technology. 1986; *Otology Today*, Riva Del Garda, Italy
5. **Popelka, G:** New developments in hearing aid technology. 1986; Fourth Rion International Seminar, Tokyo, Japan
6. **Popelka, G:** Computers in the rehabilitation of hearing. 1986; Sackler Faculty of Medicine Lecture, Tel Aviv University, Tel Aviv, Israel
7. **Popelka, G:** The CID digital hearing aid. 1986; Digital Signal Processing and Real Ear Measurement, University of Wisconsin, Madison, Wisconsin
8. **Popelka, G:** Cochlear implants in children. 1986; Sackler Faculty of Medicine Lecture, Tel Aviv University, Tel Aviv, Israel
9. **Popelka, G:** Computer technology for sensorineural hearing impairment. 1986; *New Approaches to Sensorineural Hearing Impairment*, Deafness Research Foundation, New York, New York
10. **Popelka, G:** Computer technology and hearing aids. 1986; *New Perspectives on Amplification*, Stanford University, Palo Alto, California
11. **Popelka, G:** Computer assisted hearing aid fitting. 1986; University of Wisconsin, Madison, Wisconsin
12. **Popelka, G:** Effects of certain auditory factors on individual susceptibility to noise. 1990; Consensus Development Conference on Noise and Hearing Loss, National Institutes of Health, Washington, D.C.
13. **Popelka, G:** Cochlear implants in children. 1992; Knud Terkildsen Lecture, University of Copenhagen, Copenhagen, Denmark
14. **Popelka, GR, Wightman, F, and Neely, S:** Information sharing via the internet. 1995; Geraldine Fox Lecture, Association for Research in Otolaryngology, St. Petersburg Beach, Florida
15. **Popelka, GR, Wightman, F, Neely, S, Johnson, D, and Miller, JD:** Science, scholarship, and communication via the internet. 1996; Geraldine Fox Lecture, Association for Research in Otolaryngology, St. Petersburg Beach, Florida
16. **Popelka, G:** Computers and hearing aids: A prediction of the future. 1998; Academy Award Session, American Academy of Audiology, Los Angeles, California
17. **Popelka, GR:** Current Issues in Universal Neonatal Hearing Screening, May 30, 2002; NHS2002: International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Como, Italy (With Dauman, R, Hall, III, JW, Kileny, P, Norton, S, and Sininger, Y)
18. **Popelka, GR:** Brain Function Monitoring and Anesthesia: Current Status and Future Developments, Visiting Professor, September 17, 2002; Duke University, Durham, North Carolina
19. **Popelka, GR:** Issues Affecting Otoacoustic Emissions and Auditory Brainstem Methods in Neonatal Auditory Screening, Keynote Speaker, June 7, 2005; Neonatal Hearing Screening Symposium, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

20. **Popelka**, GR: Auditory Brainstem Development in the Neonate, Keynote Speaker, June 10, 2005; Israeli Society of Otoneurology, Technion Israel Institute of Technology, Haifa, Israel
21. **Popelka**, GR: Dynamics of Speech Structures; New Perspectives from Real-Time MRI Measures, May 8, 2006; Berkeley Ear Club, University of California, Berkeley, Berkeley California
22. **Popelka**, GR: The Neonatal Ear Canal: Considerations for Neonatal Hearing Screening, May, 15, 2008; 8th International Otorhinolaryngology and Head Neck Surgery Congress, Ankara, Turkey
23. **Popelka**, GR: Dynamics of Oral Structures: New Perspectives on Swallow and Speech, May, 15, 2008; 8th International Otorhinolaryngology and Head Neck Surgery Congress, Ankara, Turkey
24. **Popelka**, GR: Dynamics of the Upper Airway: New Perspectives on Sleep Apnea from Real Time MRI Measures, May, 17, 2008; 8th International Otorhinolaryngology and Head Neck Surgery Congress, Ankara, Turkey
25. **Popelka**, GR: Visiting Professor, History of Audiology, September 15, 2008, Lunds University, Lund, Sweden
26. **Popelka**, GR: Keynote Speaker, Celebration of 10th Anniversary of Audiology Department, September 17, 2008, Lunds University, Lund, Sweden
27. **Popelka**, GR: Visiting Professor, History of the Cochlear Implants in the United States, September 19, 2008, Lund University, Lund, Sweden
28. **Popelka**, GR: Hearing Loss and the Latest Advances in Hearing Aid Technology, October 8, 2012, Emeriti Council, Center for Longevity, Stanford University, Stanford, California
29. **Popelka**, GR: Improving Communication for People with Hearing Loss, March, 14-15, 2017, Center for Longevity, Stanford University, Stanford, California
30. **Popelka**, GR: Wearable Hearing Devices, February 20, 2019, Stanford eWEAR Annual Meeting, Stanford, California

14. **Board Memberships and Consulting Relationships**

1980-	Software Developer, Apple Computer
1985-1992	Consultant, The effects of noise exposure on the auditory system and how to prevent them, Union Pacific Railroad
1992-1993	Member, Medical Board, St. Louis Symphony Orchestra
2001-	Member, Healthy Hearing Audiology Advisory Board, Audiology Online
2003-2005	Member, NHS2004 Early Hearing Detection and Intervention Focus Group, Milan Italy
2005-2009	Member, Data Safety Monitoring Board, National Institutes of Health, for monitoring clinical trials of a large multi-center pharmaceutical study concerning an ototoxic drug used for colorectal disease

2006-2014	Member, Scientific Advisory Board, Sonitus Medical, Inc, San Mateo, CA
2010-	Member, Board of Trustees, Baker Institute for Children with Hearing Loss, Palo Alto, CA
2016-	Member, Scientific Advisory Board, Tusker Medical, Inc, Menlo Park, CA
2017-	Member, Scientific Advisory Board, SoundMed, LLC, Shangai, China

15. Research Support

a. Governmental

1976	Popelka , GR, Co-Principal Investigator with M. Miller The Acoustic Stapedius Reflex in Neonates The United States-Israel Bi-National Science Foundation \$10,000
1980-1983	Popelka , GR, Program Project Laboratory Head Ira Hirsh, Principal Investigator The Auditory System and Its Disorders National Institutes of Health \$150,000
1983-1991	Popelka , GR, Co-Principal Investigator with A. Engebretson and R. Morley Development of a Digital Hearing Aid Veteran's Administration V674P-857 \$1,941,528
1983-1991	Popelka , GR, Co-Principal Investigator with A. Engebretson and R. Morley Development of a Digital Hearing Aid National Aeronautics and Space Administration \$397,858
1992	Popelka , GR, Research Fellowship Basic Attributes of Otoacoustic Emissions Knud Terkildsen Research Fellowship Fund Rigshospitalet, University of Copenhagen, Copenhagen, Denmark \$62,800
1997-1998	Popelka , GR, Co-Principal Investigator with E. Causevic and R. Morley Development of a Portable Auditory Diagnostic Device, Phase I Small Business Innovation Research Grant United States Air Force, FY7624-97-AO005 \$100,000
1998-2000	Popelka , GR, Co-Principal Investigator with E. Causevic and R. Morley Portable Auditory Diagnostic Device, Phase II Small Business Innovation Research Grant United States Air Force, FY7624-97-AO005 \$750,000

- 1999-2000 **Popelka**, GR, Principal Investigator
Handheld Neonatal Auditory Screening Device, Phase I
Small Business Technology Transfer Grant
National Institutes of Health, R41-DC03614-01A2
\$100,000
- 2001-2004 **Popelka**, GR, Principal Investigator
Handheld Neonatal Auditory Screening Device, Phase II
Small Business Technology Transfer Grant
National Institutes of Health, R41-DC03614-01A2
\$500,000
- 2004-2005 **Popelka**, GR, Principal Investigator
Neonate Hearing Simulator, Phase I
Small Business Innovation Research Grant
National Institutes of Health, R43-DC005115-01A1
\$100,000
- 2005-2006 **Popelka**, GR, Co-Principal Investigator with R. Delgado
Hearing Simulator, Phase I
Small Business Innovation Research Grant
National Institutes of Health, R43-DC008015-01A1
\$100,000
- 2006-2009 **Popelka**, GR, Co-Principal Investigator with R. Delgado
Hearing Simulator, Phase II
Small Business Innovation Research Grant
National Institutes of Health, R43-DC008015-01A2
\$750,000
- 2009-2014 Steele, CR, Principal Investigator, **Popelka**, GR, Investigator
Human Middle Ear Imaging, Physiology, and Biomechanics
NIDCD R01 Grant
National Institutes of Health, R01-DC005960-04A1
\$500,000
- 2009-2014 Heller, S, Principal Investigator, **Popelka**, GR, Core Director
Auditory Measures in Small Mammals
NIDCD Research Core Center P30
National Institutes of Health, P30-DC010363-01
\$508,469
- 2012-2015 Steele, CR, Principal Investigator, **Popelka**, GR, Investigator
Three-dimensional and multiscale organ of Corti biomechanics
NIDCD R01 Grant
National Institutes of Health, R01-DC007910
\$3,252,053
- 2015-2016 **Popelka**, GR, Principal Investigator, Tass, PA, Co-Investigator
Tinnitus Neuromodulation and 3D EEG Imaging
Jülich-Stanford Agreement
Jülich Research Institute, Germany
\$400,000

2018-2022 Pauly, KB, Principal Investigator, **Popelka**, GR, Investigator,
What are we Stimulating with Transcranial Ultrasound in Mice?
NIMH BRAIN Initiative: Non-Invasive Neuromodulation
National Institutes of Health, R01 MH116977
\$1,231,937

b. Non-governmental

1980-1996 **Popelka**, GR, Principal Investigator (Many small grants)

1987-1991 **Popelka**, GR, Co-Principal Investigator with A. Engebretson
and R. Morley
Development of a Digital Hearing Aid
3-M Corporation
\$1,100,000

1989 **Popelka**, GR, Principal Investigator
Tympanometry Development
Sertoma Foundation
\$5000

1990 **Popelka**, GR, Principal Investigator
Otoacoustic Emissions Development
Sertoma Foundation
\$5000

1992 **Popelka**, GR, Principal Investigator
Otoacoustic Emissions for Food and Drug Administration Trials
Virtual Corporation
\$12,000

1993-1999 **Popelka**, GR, with R.K. Karzon, Principal Investigator
Otoacoustic Emissions: Screening in High-Risk Infants
American Hearing Research Foundation
\$10,000

1998-1999 **Popelka**, GR, Principal Investigator
Innovative Approaches to Otoacoustic Emission Measurements
for Neonatal Hearing Screening
National Organization for Hearing Research
\$10,000

2004-2006 **Popelka**, GR, Principal Investigator
Vice Provost Undergraduate Education
Stanford University
\$5,000

2016-2018 **Popelka**, GR, Investigator, Tass, PA, Principal Co-Investigator
Tinnitus Neuromodulation and 3D EEG Imaging
Department of Neurosurgery
Stanford University
\$800,000

2018- **Popelka**, GR, Investigator, Pauly, KB, Principal Investigator
Focussed Ultrasound Neuromodulation
Department of Radiology
Stanford University

16. Clinical Titles and Responsibilities

- 1980-1994 Head of Audiology, Central Institute for the Deaf
Directed and managed a comprehensive outpatient audiology clinic that employed an average of seven audiologists who saw approximately 4500 patients annually. Patients ranged in age from neonate to elderly. All audiologic services were provided.
- 2004-2015 Chief of Audiology, Department of Otolaryngology
Stanford University School of Medicine
Created, directed and managed a comprehensive outpatient and inpatient audiology clinic that employed an average of seven audiologists who saw approximately 11,500 patients annually. ranging in age from neonate to elderly. All audiologic and vestibular services were provided.
- 2009-2017 Co-Founder and Co-Director
Stanford Balance Center
Stanford University School of Medicine
Co-Created, Co-Founded and Co-Directed with Dr. Helen-Bronte-Stewart, Professor of Neurology, a comprehensive multi-disciplinary balance center integrating Neurology, Otolaryngology, Audiology, Physical Therapy and related services for diagnosing and treating complex balance disorders.

17. Teaching Title and Responsibilities

Professor (Courses taught since 1980)

a. Speech & Hearing Department, Washington University

- 1980-1996 Clinical Practicum I
1980-1996 Clinical Practicum II
1980-1996 Clinical Practicum III
1980-1987 Electroacoustics
1980-2002 Independent Studies, Masters Theses and Dissertation Research
1981-1996 Hearing Evaluation and Diagnosis I
1981-1996 Hearing Evaluation and Diagnosis II
1981-1996 Hearing Evaluation and Diagnosis III
1989-1995 Introduction to Audiology
1993-1995 Introduction to Speech & Hearing Sciences and Disorders
2000-2004 Individual lectures in Anatomy, Neuroscience, Physiology

b. School of Medicine, Washington University

- 1997-1999 Introduction to Computers and Technology
1997-1999 Evaluating Practice Through Research
1997-1999 Area Specialization Seminar (Research in Hearing Impairment)
1996-2004 Individual lectures in Anatomy, Neuroscience, Policy, Research and Assistive Technology

c. School of Engineering, Stanford University

- 2004 Seminar in Hearing Disorders, Engineering graduate students
2004- Independent studies, digital signal processing, Electrical Engineering undergraduate students (EE 190)
2004- Independent studies, digital signal processing, Electrical Engineering graduate students (EE 390, EE 391)

d. School of Medicine, Stanford University

- 2004-2017 Lectures and mentoring, Otolaryngology residents and fellows
2004-2017 Lectures, clerkships, Medical students

2006-2011	Triologic Thesis advisor, Jose E. Barrera, MD, Otolaryngology, Sleep Magnetic Resonance Imaging: Dynamic Characteristics of the Airway During Sleep in Obstructive Sleep Apnea Syndrome
2007-2008	Dissertation advisor, Ryan Cassidy, PhD, Engineering, Auditory signal processing to improve impaired listening experiences via efficient, loudness-based algorithms (EE 801)
2013-2015-	Lectures in Anatomy (SURG 72Q, Anatomy in Society) Student advisor for pre-major undergraduates Newcomer Program (8-12 students per year)
2018-2019	Dissertation advisor, Patrick Ye, PhD, Bioengineering, Ultrasound Neuromodulation: Optimization, Mechanisms, and Confounds
2018-	Dissertation advisor, Alex Chechile, PhD, Music, Practical Applications of Difference Tones in Electronic Music Composition and Synthesis
2019	Independent study, Real time integration of facial, text and audio to enhance communication ability in the hearing impaired using artificial intelligence and augmented reality, Computer Science undergraduate student (RAD 199)

18. Patents

1985	Hearing aids, signal supplying apparatus, systems for compensating hearing deficiencies, and methods, #4,548,082, October 22, 1985, Inventors: Engebretson, A., Morley, R., and Popelka , G, Assigned originally to Washington University and sold in September, 1996 to a consortium of hearing aid manufacturers for \$9,000,000. This patent is for the first all digital hearing aid and is the basis for all programmable and computer-based hearing aids
2007	Sleep MRI: A novel quantification of airway obstruction in obstructive sleep apnea, Inventors: Barrera JE, Holbrook, AB, Santos JM and Popelka , GR. Docket 07-207, Assigned to Stanford University, Inactive
2008	Peripheral Arterial Tone (PAT) as a leading indicator of airway obstruction for real-time MRI imaging (RT-MRI), Inventors: Popelka , GR, Santos, JM, Barrera, JE, Docket 08-010, Provisional patent, Assigned to Stanford University, Inactive
2012	Oral Education of Hearing Impaired Children with Telemedicine and Teletherapy, Inventor: Popelka , GR, Assigned to Stanford University, In process
2016	Personalized neuromodulation therapy for treating tinnitus and other conditions, Inventors: Popelka , GR and Tass, PA, Docket 16-272, Assigned to Stanford University, Priority date Aug 12, 2016, Applied internationally, PCT/US2017/043151, Pending
2017	Head Simulator for sensory and transcranial neuromodulation stimulation, Inventor: Popelka , GR, Docket 17-146, Assigned to Stanford University, In process

2018

Automated coordinated reset neuromodulation therapy,
 Inventor: **Popelka**, GR, Docket S18-135, Assigned to Stanford
 University, In process

19. Publications

1. Adams, MR and **Popelka**, GR: The influence of "time-out" on stutterers and their dysfluency. *Behavior Therapy* 1971; 2(3): 334-339
2. **Popelka**, GR and Berger, KW: Gestures and visual speech reception. *American Annals of the Deaf* 1971; 116(4): 434-436
3. Berger, KW and **Popelka**, GR: Extra-facial gestures in relation to speechreading. *Journal of Communication Disorders* 1971; 3: 302-308
4. **Popelka**, GR, Karlovich, RS, and Wiley, TL: Acoustic reflex and critical bandwidth. *Journal of the Acoustical Society of America* 1974; 55(4): 883-885
5. Margolis, RH and **Popelka**, GR: Loudness and the acoustic reflex. *Journal of the Acoustical Society of America* 1975; 58(6): 1330-1332
6. Margolis, RH and **Popelka**, GR: Static and dynamic acoustic impedance measurement in infant ears. *Journal of Speech and Hearing Research* 1975; 18(3): 435-443
7. **Popelka**, GR, Margolis, RH, and Wiley, TL: The effect of activating signal bandwidth on acoustic reflex thresholds. *Journal of the Acoustical Society of America* 1976; 59(1): 153-159
8. Margolis, RH and **Popelka**, GR: Auditory filter characteristics inferred from simultaneous masking: Effects of procedural variables. *Journal of the Acoustical Society of America* 1977; 61: S28
9. Margolis, RH and **Popelka**, GR: Interactions among tympanometric variables. *Journal of Speech and Hearing Research* 1977; 20: 447-462
10. **Popelka**, GR and Dubno, JR: Comments on the acoustic reflex response for bone-conducted signals. *Acta-Otolaryngologica* 1978; 86: 64-70
11. Margolis, RH and **Popelka**, GR: Detection of tones in band-reject noise. *Journal of the Acoustical Society of America* 1978; 63: S54
12. Himelfarb, MZ, Shanon, E, **Popelka**, GR, and Margolis, RH: Acoustic reflex evaluation in neonates, in *Early Diagnosis of Hearing Loss*, S Gerber and G Mencher, Editors. 1978, Grune & Stratton: New York, New York. 109-127
13. Margolis, RH, **Popelka**, GR, and Smith, P: The significance of "The significant asymmetrical tympanogram": A reply to Pearlman and Graber. *Journal of Speech and Hearing Research* 1978; 21(3): 607-608
14. Margolis, R, Osguthorpe, J, and **Popelka**, GR: The effects of experimentally-produced middle ear lesions on tympanometry in cats. *Acta-Otolaryngologica* 1978; 86: 428-436
15. Silman, S, **Popelka**, GR, and Gelfand, SA: Effect of sensorineural hearing loss on acoustic stapedius reflex growth functions. *Journal of the Acoustical Society of America* 1978; 63 (4): S42

16. Silman, S, **Popelka**, GR, and Gelfand, SA: Effect of sensorineural hearing loss on acoustic stapedius reflex growth functions. *Journal of the Acoustical Society of America* 1978; 64(5): 1406-1411
17. Himelfarb, MZ, **Popelka**, GR, and Shanon, E: Tympanometry in normal neonates. *Journal of Speech and Hearing Research* 1979; 22(1): 179-191
18. Himelfarb, MZ, **Popelka**, GR, Weiser, A, and Shanon, E: The significance of acoustic admittance procedures in the audiologic evaluation of multiply-handicapped children. *British Journal of Audiology* 1981; 15: 21-24
19. **Popelka**, GR: Electric response audiometry at Central Institute for the Deaf. *Hearing Aid Journal* 1981; 34(8): 8-26
20. **Popelka**, GR: Pragmatic aspects of hearing assessment with acoustic reflex threshold measures, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 97-113
21. Margolis, RH, **Popelka**, GR, Handler, S, and Himelfarb, MZ: The effects of age on acoustic-reflex thresholds in normal-hearing subjects, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 85-95
22. **Popelka**, GR: Instrumentation and procedures for measuring acoustic reflex thresholds, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 47-58
23. **Popelka**, GR: The acoustic reflex in normal and pathologic ears, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 5-21
24. **Popelka**, GR: ed. *Hearing Assessment with the Acoustic Reflex*. 1981, Grune & Stratton: New York, New York. 168
25. Margolis, RH, *et al.*: The bivariate plotting procedure for hearing assessment with acoustic reflex threshold measures, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 59-84
26. **Popelka**, GR: First attempts at hearing assessment with acoustic reflex measures, in *Hearing Assessment with the Acoustic Reflex*, GR **Popelka**, Editor. 1981, Grune & Stratton: New York, New York. 23-45
27. Skinner, MW, Pascoe, DP, Miller, JD, and **Popelka**, GR: Measurements to determine optimal placement of speech energy within the listener's auditory area: A basis for selecting amplification characteristics, in *The Vanderbilt Report*, G. Studebaker and F. Bess, Editors. 1982, Monographs in Contemporary Audiology: Upper Darby, Pennsylvania. 161-168
28. **Popelka**, GR: Auditory Disorders by Susan Jerger and James Jerger. *Journal of the Acoustical Society of America* 1982; Volume 71 (4): 1053
29. **Popelka**, GR: PHASE IV: Program for hearing aid selection and evaluation. 1983; Central Institute for the Deaf Publications, St. Louis, Missouri
30. **Popelka**, GR: Basic acoustic immittance measures. *Audiology* 1983; 3(1): 1-16
31. **Popelka**, GR and Engebretson, AM: A computer-based audiologic system for hearing aid assessment. *Hearing Instruments* 1983; 34(7): 6-8

32. **Popelka**, GR: Acoustic immittance measures: Terminology and instrumentation. *Ear and Hearing* 1984; 5(5): 262-267
33. **Popelka**, GR and Gittelman, DA: Audiologic findings in a child with a single-channel cochlear implant. *Journal of Speech and Hearing Disorders* 1984; 49: 254-261
34. **Popelka**, GR: Improving the hearing of the elderly, in *Communications Technology and the Elderly*, R.E. Dunkle, M.R. Haug, and M. Rosenberg, Editors. 1984, Springer: New York, New York. 81-96
35. Davis, H, Hirsh, SK, **Popelka**, GR, and Formby, C: Frequency selectivity and thresholds of brief stimuli suitable for electric response audiometry. *Audiology* 1984; 23: 59-74
36. Newby, HA and **Popelka**, GR: *Audiology* fifth ed. 1985, Englewood Cliffs, New Jersey: Prentice-Hall. 472 pp
37. Engebretson, AM, Morley, RE, and **Popelka**, GR: Hearing aids, signal supplying apparatus, systems for compensating hearing deficiencies, and methods. *Journal of the Acoustical Society of America* 1986; 79: 1198
38. Skinner, MW, Miller, JD, DeFilippo, CL, Dawson, JK, and **Popelka**, GR: Word identification by listeners with sensorineural hearing loss using four amplification systems, in *Sensorineural Hearing Loss Mechanisms Diagnosis Treatment*, M.J. Collins, T.J. Glatke, and L.J. Harker, Editors. 1986, University of Iowa: Iowa City, Iowa. 305-325
39. **Popelka**, GR and Gittelman, DA: Reply to Eisenberg et al., "Response to **Popelka** and Gittelman (1984): Audiologic findings in a child with a single-channel cochlear implant". *Journal of Speech and Hearing Disorders* 1986; 51: 182-183
40. Engebretson, AM, **Popelka**, GR, Morley, RE, Niemoeller, AF, and Heidbreder, AF: A digital hearing aid and computer-based fitting procedure. *Hearing Instruments* 1986; 37(2): 8-14
41. Meister, M, Johnson, AL, **Popelka**, GR, Kim, GS, and Whyte, MP: Audiologic findings in young patients with hypophosphatemic bone disease. *Annals of Otology, Rhinology & Laryngology* 1986; 95(4): 415-420
42. Mason, DI and **Popelka**, GR: Comparison of hearing aid gain using functional, coupler and probe-tube measurements. *Journal of Speech and Hearing Research* 1986; 29(1): 218-226
43. **Popelka**, GR: Computer assisted hearing aid fitting, in *Microcomputer Applications in Rehabilitation of Communication Disorders*, M.L. Grossfeld and C.A. Grossfeld, Editors. 1986, Aspen Publishing: Rockville, Maryland. 67-95
44. **Popelka**, GR, Himelfarb, MZ, and Whyte, MP: X-Linked hypophosphatemia and auditory impairment. *Association for Research in Otolaryngology Abstracts* 1986; 9: 30
45. **Popelka**, G: New developments in hearing aid technology. *Advances in Otorhinolaryngology* 1987; 37: 162-5
46. **Popelka**, G: Computer-assisted hearing-aid evaluation and fitting program. *Advances in Otorhinolaryngology* 1987; 37: 166-8

47. Engebretson, AM, Morley, RE, and **Popelka**, GR: Development of an ear-level digital hearing aid and computer-assisted fitting procedure: An interim report. *Journal of Rehabilitation Research and Development* 1987; 24(4): 55-64
48. **Popelka**, GR and Mason, DI: Factors which affect measures of speech audibility with hearing aids. *Ear and Hearing* 1987; 8(5): 109S-118S
49. Gittelman, DA and **Popelka**, GR: The dynamic range configuration audiogram. *Volta Review* 1987; 89(2): 69-83
50. **Popelka**, GR: The CID method: Phase IV. *Hearing Instruments* 1988; 39(7): 15-18
51. **Popelka**, GR: Computer technology and hearing aids, in *Handbook of Technical and Theoretical Considerations in Hearing Aid Amplification*, R. Sandlin, Editor. 1988, College-Hill Press: San Diego, California. 239-263
52. Gates, GA and **Popelka**, GR: A tribute to Max Aaron Goldstein, MD. *Laryngoscope* 1989; 99(9): 988
53. Clark, WW and **Popelka**, GR: Hearing levels of railroad trainmen. *Laryngoscope* 1989; 99(11): 1151-1157
54. **Popelka**, GR, Clark, WW, and Richling, DA: Hearing Hotline! Is established for Union Pacific Railroad. *Spectrum* 1989; 6(1): 8-9
55. Clark, WW and **Popelka**, GR: Response to Dr. Kryter's letter concerning the article, "Hearing levels of railroad trainmen". *Laryngoscope* 1990; 100(10): 1136-1138
56. **Popelka**, GR: Protecting your ears (1-hour video). 1991; Union Pacific Railroad, Omaha, Nebraska
57. **Popelka**, GR and Gates, GA: Hearing impairment. Delta hearing handicap and presbycusis software. *Journal of the American Medical Association* 1991; 266: 3488
58. **Popelka**, GR and Gates, GA: Hearing aid evaluation and fitting. *Otolaryngologic Clinics of North America* 1991; 24(2): 415-428
59. Gates, GA and **Popelka**, GR: Neural presbycusis: A diagnostic dilemma. *American Journal of Otology* 1992; 13: 313-317
60. **Popelka**, GR: Hearing impairment, in *Encyclopedia of Science and Technology*. 1992, McGraw-Hill, Inc.: New York, New York. 334-336
61. Newby, HA and **Popelka**, GR: *Audiology* sixth ed. 1992, Englewood Cliffs, New Jersey: Prentice-Hall. 552 pp
62. Rasmussen, AN, **Popelka**, GR, Osterhammel, PA, and Nielsen, LH: Clinical significance of relative probe tone levels on distortion product otoacoustic emissions. *Scandinavian Audiology* 1993; 22: 223-229
63. Nielsen, LH, **Popelka**, GR, Rasmussen, AN, and Osterhammel, PA: Clinical significance of probe-tone frequency ratio on distortion product otoacoustic emissions. *Scandinavian Audiology* 1993; 22: 159-164
64. **Popelka**, G, Osterhammel, P, Nielsen, L, and Rasmussen, A: Growth of the $2f_1-f_2$ distortion product otoacoustic emission with stimulus level in normal hearing humans. *Association for Research in Otolaryngology Abstracts* 1993; 16: 44

65. **Popelka**, GR, Osterhammel, PA, Nielsen, LH, and Rasmussen, AN: Growth of distortion product otoacoustic emissions with primary-tone level in humans. *Hearing Research* 1993; 71: 12-22
66. **Popelka**, GR: The inside story to computer assisted hearing aid fitting (2-hour video). 1994; *Info-Link Video Bulletin*, Layton, Utah
67. **Popelka**, GR, Karzon, R, and Ellis Arjmand, E: Growth of the $2f_1$ - f_2 distortion product otoacoustic emission for low-level stimuli in human neonates. *Association for Research in Otolaryngology Abstracts* 1994; 17: 51
68. **Popelka**, GR, Karzon, RK, and Arjmand, EM: Growth of the $2f_1$ - f_2 distortion product otoacoustic emission for low-level stimuli in human neonates. *Ear and Hearing* 1995; 16: 159-165
69. **Popelka**, GR, Wightman, F, and Neely, S: Information sharing via the internet (1-hour video). 1995; *Association for Research in Otolaryngology*, St. Petersburg Beach, Florida
70. **Popelka**, GR, Karzon, R, and Arjmand, E: Developmental characteristics of the $2f_1$ - f_2 distortion product otoacoustic emission (DPOAE) in human neonates. *Association for Research in Otolaryngology Abstracts* 1995; 18: 119
71. **Popelka**, GR: The relation between hearing sensitivity and the $2f_1$ - f_2 distortion product otoacoustic emission for low-level stimuli. *Association for Research in Otolaryngology Abstracts* 1995; 18: 119
72. **Popelka**, GR, Wightman, F, Neely, S, Johnson, D, and Miller, JD: Science, scholarship, and communication via the internet (1-hour video). 1996; *Association for Research in Otolaryngology*, St. Petersburg Beach, Florida
73. **Popelka**, GR: Hearing impairment, in *Encyclopedia of Science and Technology*. 1997, McGraw-Hill, Inc. 374-377
74. **Popelka**, GR, Karzon, RK, and Clary, RA: Noise floor characteristics of distortion product otoacoustic emission measurements in human neonates. *Association for Research in Otolaryngology Abstracts* 1997; 20: 24
75. **Popelka**, GR: Computers and hearing aids: A prediction of the future. *Hearing Journal* 1998; 51(11), 58-62
76. **Popelka**, GR, Karzon, RK, and Clary, RA: Identification of noise sources that influence distortion product otoacoustic emission measurements in human neonates. *Ear and Hearing* 1998; 19: 319-328
77. **Popelka**, GR, Santi, PA, Brownell, WE, Neely, S, Salt, AN, Schulte, BA: A Proposal for a Peer-Reviewed ARO Journal; *Association for Research in Otolaryngology Abstracts* 1998; 21: 356
78. **Popelka**, GR, Causevic, EM, Morley, RE and Ellsworth, AR: Spectral content of noise from isolated sources during distortion product otoacoustic emissions measurements. *Association for Research in Otolaryngology Abstracts* 1999; 22: 98
79. **Popelka**, GR, Causevic, EM, Krohn, RJ, Morley, RE, Wickerhauser, VM, Zhao, J, and Walden, R: Interaction of environmental noise, measurement type, and digital signal processing for universal neonatal auditory screening. *Association for Research in Otolaryngology Abstracts* 2000; 23: 335

80. **Popelka** GR : Recommended two-stage newborn screening can be accomplished with a single device. *Hearing Journal* 2001; 54 (3): 46-54
81. Causevic, E, Wickerhauser MV, **Popelka** GR, Causevic, E: Wavelet transform analysis and noise reduction for auditory evoked responses. *Association for Research in Otolaryngology Abstracts* 2001; 24: 385
82. **Popelka**, GR, Hall, III, JW, Smith, SD, Davis, II, WN: Short-Term Maturation of the Neonate Auditory Brainstem Response. *Association for Research in Otolaryngology Abstracts* 2002; 25: 694
83. **Popelka**, GR: You're More Sensitive Than Your Equipment. *Advance for Audiologists*, 2002; November/December: 31-32
84. **Popelka**, GR, Hall, III, JW, Smith, SD: Sources of Functional Auditory Brainstem Maturation in the Human Neonate. *Association for Research in Otolaryngology Abstracts*, 2003; 166
85. **Popelka**, GR, Martinosky, JW, Walden, RE, Gourley, GR: Auditory Function and Hyperbilirubinemia in the Developing Neonate. *Association for Research in Otolaryngology Abstracts*, 2004; 882
86. Hall, JW, III, Smith, SD, **Popelka**, GR: Newborn Hearing Screening with Combined Automated Otoacoustic Emissions and Auditory Brainstem Responses. *Journal of the American Academy of Audiology*, 2004; 15:412–423
87. **Popelka**, GR: Total Serum Bilirubin Level and Auditory Brainstem Function in the Developing Neonate. *Association for Research in Otolaryngology Abstracts*, 2005; 436
88. Monfared, A, Blevins, N, Cheung, EL, Jung, J, **Popelka**, GR, Schnitzer, MJ: Fluorescence Microendoscopy of Mammalian Cochlear Blood Flow. *COSM Abstracts*, 2005.
89. Monfared, A, Blevins, N, Cheung, EL, Jung, J, **Popelka**, GR, Schnitzer, MJ.: Fluorescence Microendoscopy of Mammalian Cochlear Blood Flow. *Otology & Neurotology*, 2006; 27 (2):144-152.
90. **Popelka**, GR, Kent RD: Dynamics of Speech and Swallowing. *Association for Research in Otolaryngology Abstracts*, 2006; 305
91. **Popelka**, GR, Contributing Editor: *Yearbook of Neonatal and Perinatal Medicine*, Avroy A Fanaroff, M. Jeffrey Maisels and David K. Stevenson, Eds, Elsevier Mosby, Philadelphia, 2006
92. Cheung, ELM, Monfared, A, **Popelka**, G, Blevins, NH, M.J. Schnitzer, MJ: *In vivo* assessment of auditory hair cell functionality using fluorescence microendoscopy, *Society for Neuroscience Abstracts*, 32:45, 2006
93. Cheung, ELM, Monfared, A, **Popelka**, GR, Blevins, NH, Schnitzer, MJ: *In vivo* imaging and functional assessment of mammalian auditory hair cells using one- and two-photon fluorescence microendoscopy, *Association for Research in Otolaryngology Abstracts*, 2007
94. **Popelka**, GR: Hearing Impairment, *Encyclopedia of Science & Technology*, 10th Edition (ISBN: 007-144143-3/978-007-144143-8), April 2007, McGraw-Hill, Inc.

95. Engel, RR and **Popelka** GR: Single breath CO measurements normalized to 5% CO₂ in Coombs' test positive neonates, *Physiological Measurement*, 2007; 28 (9): 977-988
96. Barrera JE, Holbrook AB, Santos JM, **Popelka** GR. Novel Quantification of Airway Obstruction in Adult Obstructive Sleep Apnea. *CHEST Supplement*, 2007; 132: 464S
97. Barrera, JE, Forest, VI, Holbrook, AB, **Popelka**, GR: Predictors of Airway Obstruction in Adult Sleep Apnea. *Otolaryngology - Head and Neck Surgery*, 2007; 137 (2): 208-209
98. Barrera, JE, Holbrook, AB, Santos, J and **Popelka**, GR: Pulse Arterial Tone and Airway Obstruction in Sleep Apnea *Otolaryngology - Head and Neck Surgery*, 2008; 139 (2): 83
99. Puria, S, O'Connor, K, Yamada, H, Shimizu, Y, **Popelka**, GR, Steele, C: Do otoacoustic emissions travel in the cochlea via slow or fast waves? *Association for Research in Otolaryngology Abstracts*, 2009
100. Barrera JE, Holbrook AB, Santos, JM, **Popelka** GR. Sleep MRI: Novel technique to identify airway obstruction in obstructive sleep apnea. *Otolaryngology-Head and Neck Surgery*, 2009; 140, 423-425
101. Barrera, JE, Chang, RC, **Popelka** GR. Reliability of airway obstruction analysis from sleep MRI. *Otolaryngology - Head and Neck Surgery*, 2009, 141, (3), 122
102. **Popelka**, GR, Telukuntla, G, Puria, S: Middle-ear function at high frequencies quantified with advanced bone-conduction measures. *Hearing Research*, 2010; 263, 85-92
103. Barrera, JE, Chang, RC, **Popelka**, GR: Reliability of Airway Obstruction Analyses from Sleep MRI Sequences. *Otolaryngology-Head and Neck Surgery*, 2010; 142 (4), 526-530
104. **Popelka**, GR, Derebery J, Blevins, NH, Murray, M, Moore BCJ, Sweetow, RW, Wu, B, Centore, L, Katsis, M: Preliminary Evaluation of a Novel Bone Conduction Device for Single Sided Deafness. *Otology and Neurotology*, 2010; 31, 492-497
105. Murray, M, **Popelka**, G, Miller, R, Tucker J: Bone Conduction via Teeth for Unilateral Deafness, Validated. *Otolaryngology - Head and Neck Surgery*, 2010; 143 (2), 87-88
106. **Popelka**, GR, Telukuntla, G, Puria, S: Quantification of Human Middle Ear Function With High Frequency Bone Conduction Measures. *Association for Research in Otolaryngology Abstracts*, 2010
107. **Popelka**, GR: SoundBite Hearing System by Sonitus Medical: A New Approach to Single-Sided Deafness.. *Seminars in Hearing*, 2010; 31 (4), 393-409
108. Murray, M, **Popelka** GR, Miller, R: Efficacy and Safety of an In The Mouth Bone Conduction Device for Single Sided Deafness. *Otology and Neurotology*, 2011; 32, 437-443
109. Batts, S, Cheung, E, Monfared, A, Blevins, N, **Popelka**, G, Schnitzer, M: In Vivo Imaging of Functional Mammalian Hair Cells with Fluorescence Microendoscopy. *Association for Research in Otolaryngology Abstracts*, 2011

110. Pikhart, KN, **Popelka**, GR, Sisto, R, Moleti, A, Oghalai, JS, Xia, A, Puria, S: Stimulus Frequency Otoacoustic Emissions (SFOAEs) in Wild Type and TECTA Mice, *Mechanics of Hearing Abstracts*, 2011
111. Shapiro, SM, and **Popelka**, GR: Auditory Impairment in Infants at Risk for Bilirubin-Induced Neurologic Dysfunction. *Seminars in Perinatology*, 2011; 35 (3), 162-170
112. Murray, M, Miller, R, Hujoel, P, **Popelka**, GR: Long Term Safety and Benefit of a New Intraoral Device for Single Sided Deafness. *Otology and Neurotology*, 2011; 32, 1262-1269
113. Miller, R, Hujoel P, Murray, M, **Popelka**, GR: Safety of an Intra-Oral Hearing Device Utilizing a Split-Mouth Research Design. *Journal of Clinical Dentistry*, 2011; 22(5), 159-62
114. Huth, M, **Popelka** G, Blevins, N: Sound Exposures in Recreational Environments. *Association for Research in Otolaryngology Abstracts*, 2012
115. Batts, S, Cheung, E, Blevins, N, **Popelka**, G, Savall, J, Schnitzer, M: Intravital Imaging of Auditory Hair Cells and Neurites in the Functional Mammalian Cochlea. *Association for Research in Otolaryngology Abstracts*, 2012
116. Lin, FY, Gurgel, RK, **Popelka**, GR, Capasso, R: The Effect of Continuous Positive Airway Pressure on Middle Ear Pressure. *Laryngoscope*, 2012; 122, 688-690
117. Gurgel, RK, **Popelka**, GR, Oghalai JS, Blevins, NH, Chang, KW and Jackler, RK: Is It Valid to Calculate the 3-Kilohertz Threshold by Averaging 2 and 4 Kilohertz? *Otolaryngology–Head and Neck Surgery*, 2012; 147(1), 102-104
118. Gurgel, RK, Jackler, RK, Dobie, RA, **Popelka**, GR: A New Standardized Format for Reporting Hearing Outcome in Clinical Trials, *Otolaryngology–Head and Neck Surgery*, 2012; 147(5), 803-807
119. Most, SP, Corey CL, **Popelka**, GR, Barrera JE: An Analysis of Malar Fat Volume in Two Age Groups: Implications for Craniofacial Surgery. *Craniofacial Trauma & Reconstruction*, 2012; 5(4), 231-234
120. **Popelka**, GR and Hunter, LL: Diagnostic measurements and imaging technologies for the middle ear, 2013; Chapter 8 in *The Middle Ear, Science, Otosurgery and Technology*, S Puria, RR Fay and AN Popper, Eds., Springer, NY, NY
121. Moore, BCJ and **Popelka**, GR: Preliminary comparison of bone-anchored hearing instruments and a dental device as treatments for unilateral hearing loss. *International Journal of Audiology*, 2013; 52(10), 678-686
122. Margolis, RH and **Popelka**, GR: Bone-Conduction Calibration. *Seminars in Hearing*, 2014; 35(4), 329-345
123. Huth, M, **Popelka** G, Blevins, N: Smart phone measurements of sound exposure in movie theaters. *Ear and Hearing*, 2014, 35(6), 680-686
124. **Popelka**, G: Vestibular Schwannoma, 2015, Chapter 12, 44-50, *Adult Audiology Casebook*, M Valente and LM Valente, Eds, Thieme Medical, NY, NY
125. Margolis, R, Wilson, R, Quillen, JH, **Popelka**, G, Eikelboom, R, Swanepoel, D, Saly, G: Distribution Characteristics of Normal Pure-Tone Thresholds. *International Journal of Audiology*, 2015, 54(11), 796-805

126. Margolis, R, Wilson, R, **Popelka**, G, Eikelboom, R, Swanepoel, D, Saly, G: Distribution Characteristics of Air-Bone Gaps – Evidence of Bias in Manual Audiometry. *Ear and Hearing*, 2016, 37(2), 177-188
127. **Popelka**, GR., Moore, BJC, Popper, AN, and Fay, RR: 2016, *Hearing Aids*, Springer Science, LLC, NY, NY
128. Moore, BJC and **Popelka**, GR: Introduction to Hearing Aids, 2016; Chapter 1 in *Hearing Aids*, Popelka, GR, Moore, BJC, Popper, AN and Fay, RR, Eds, Springer Science, LLC, NY, NY
129. **Popelka**, GR and Moore, BJC: Future Directions for Hearing Aid Development, 2016, Chapter 11 in *Hearing Aids*, Popelka, GR, Moore, BJC, Popper, AN and Fay, RR, Eds, Springer Science, NY, NY
130. Hauptmann, C, Wegener, A, Poppe, H, Williams, M, **Popelka**, G and Tass, PA: Validation of a Mobile Device for Acoustic Coordinated Reset Neuromodulation Tinnitus Therapy. *Journal American Academy Audiology*. 2016, 27(9), 720-731
131. Barrera, JE, Pau, CY, Forest, VI, Holbrook, AB and **Popelka**, GR: Anatomic measures of upper airway structures in obstructive sleep apnea, *World Journal of Otorhinolaryngology - Head and Neck Surgery*. 2017, 3(2), 85-91
132. Mohammadjavadi, M, Peiyong Ye, P, Xia, A, Brown, J, **Popelka**, G, Pauly, KB: Elimination of peripheral auditory pathway activation does not affect motor responses from ultrasound neuromodulation. *Brain Stimulation*. 2019, 12(4), 901-910
133. Tass, PA, Silchenko, A, **Popelka**, GR: Acoustic coordinated reset therapy for tinnitus with perceptually relevant frequency spacing and levels. *Scientific Reports*, Nature, 2019, 9, 13607
134. Batts, SA, Cheung, EL, Monfared, A, Savall, J, Jung, J, **Popelka**, GR, Blevins, NH, Schnitzer, MJ: Intravital imaging of auditory hair cells and neurites in the functional mammalian cochlea. *Nature Medicine* (Submitted, September, 2012)
135. Fitzgerald, MB, Farquhar, Kearns, Larky, J, **Popelka**, GR, Blevins, NH: The BabyTalk program: Outcomes observed after providing teletherapy to at-risk children with hearing loss. *Journal of Speech Language Hearing Research* (Submitted June, 2019)

20. Invited Presentations and Guest Lectures

1. **Popelka**, GR: Computer assisted hearing aid assessment. April 1, 1982; Missouri State Speech and Hearing Association, St. Louis, Missouri
2. **Popelka**, GR: Computer assisted hearing aid assessment for the clinician. October, 1982; American Academy of Otolaryngology, New Orleans, Louisiana
3. **Popelka**, GR: Computer assisted hearing aid assessment. April 9, 1983; American Academy of Private Practice in Speech Pathology and Audiology, Marina Del Rey, California
4. **Popelka**, GR: Computer assisted hearing aid assessment. October 24, 1983; American Academy of Otolaryngology, Anaheim, California
5. **Popelka**, GR: Computer assisted hearing aid assessment. November 18, 1983; American Speech-Language-Hearing Association, Cincinnati, Ohio

6. **Popelka**, GR: Computer assisted hearing aid assessment. February 12, 1984; American Speech-Language-Hearing Association, Las Vegas, Nevada
7. **Popelka**, GR: Computer assisted hearing aid assessment. February 13, 1984; Indiana Speech and Hearing Association, Indianapolis, Indiana
8. **Popelka**, GR: Computer assisted hearing aid assessment. June 6, 1984; Academy of Rehabilitative Audiology, Knoxville, Tennessee
9. **Popelka**, GR: Computer assisted hearing aid assessment. July 11 and 12, 1984; Indian Health Services, Billings, Montana
10. **Popelka**, GR: Computer assisted hearing aid assessment. July 16 and 17, 1984; Utah State University, Logan, Utah
11. **Popelka**, GR: Computer assisted hearing aid assessment. August 9, 1984; Hearing Aid Symposium, Madison, Wisconsin
12. **Popelka**, GR: Computer assisted hearing aid assessment. October 19, 1984; Minnesota Speech and Hearing Association, St. Paul, Minnesota
13. **Popelka**, GR: Computer assisted hearing aid fitting for maximum speech-sound/hearing area. December 5, 1984; Gallaudet College, Washington, D.C.
14. **Popelka**, GR: Computer assisted hearing aid assessment. March 23, 1985; Iowa State University, Ames, Iowa
15. **Popelka**, GR: Computer assisted hearing aid assessment. March 29, 1985; Conference on Hearing Aid Fitting, St. Louis Children's Hospital, St. Louis, Missouri
16. **Popelka**, GR: Computer assisted hearing aid assessment. April 13, 1985; Illinois Speech and Hearing Association, Chicago, Illinois
17. **Popelka**, GR: Cochlear implants in children. April 16, 1985; UCLA School of Medicine, Los Angeles, California
18. **Popelka**, GR: Computer assisted hearing aid assessment. April 19, 1985; California Speech and Hearing Association, Anaheim, California
19. **Popelka**, GR: Computer assisted hearing aid assessment. April 23, 1985; San Diego State University, San Diego, California
20. **Popelka**, GR: Computer assisted hearing aid fitting. October 2-5, 1985; Arkansas Speech, Language and Hearing Association, Hot Springs, Arkansas
21. **Popelka**, GR: Computer assisted hearing aid fitting. October 24-26, 1985; Speech and Hearing Association of Alberta, Calgary, Alberta Canada
22. **Popelka**, GR: Current concepts in hearing aid fitting. October 25-26, 1985; Kansas Speech and Hearing Association,
23. **Popelka**, GR: Computer assisted hearing aid fitting. November 1, 1985; Advanced School for Hearing Aid Fitting, Newark, New Jersey
24. **Popelka**, GR: Computer assisted hearing aid fitting. February 24-26, 1986; Amplification Update 1986, Cincinnati, Ohio

25. **Popelka**, GR: Computer assisted hearing aid fitting. March 1-2, 1986; Amplification: Demonstrating Tomorrow's Technology for Today's Patients, Newport Beach, California
26. **Popelka**, GR: Computer technology and hearing aids. March 6-8, 1986; Missouri State Speech and Hearing Association Annual Meeting, St. Louis, Missouri
27. **Popelka**, GR: Computer technology and hearing aids. March 15, 1986; New Perspectives on Amplification, Stanford University, Stanford, California
28. **Popelka**, GR: Computer technology for sensorineural hearing impairment. March 20-21, 1986; New Approaches to Sensorineural Hearing Impairment, Deafness Research Foundation, New York, New York
29. **Popelka**, GR: Computers in the rehabilitation of hearing. March 27, 1986; Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel
30. **Popelka**, GR: New developments in hearing aid technology. April 1-5, 1986; Otology Today, Riva Del Garda, Italy
31. **Popelka**, GR: Computer assisted hearing aid fitting. April 1-5, 1986; University of Wisconsin, Madison, Wisconsin
32. **Popelka**, GR: New developments in hearing aid technology. May 18, 1986; Fourth Rion International Seminar, Tokyo, Japan
33. **Popelka**, GR: The CID digital hearing aid. July 31-August 1, 1986; Digital Signal Processing and Real Ear Measurement, Madison, Wisconsin
34. **Popelka**, GR: Computer technology and auditory rehabilitation devices. September 10, 1986; Department of Otolaryngology, Washington University Medical School, St. Louis, Missouri
35. **Popelka**, GR and Pascoe, D: Hearing aid seminar. October 31-November 1, 1986; Ontario Speech and Hearing Association, Toronto, Ontario
36. **Popelka**, GR and Herzog, J: Cochlear implants. January 20, 1987; St. Louis University, St. Louis, Missouri
37. **Popelka**, GR: Computer technology and hearing aids. March 7, 1987; Ohio Speech and Hearing Association, Columbus, Ohio
38. **Popelka**, GR: Digital signal processing for the hearing impaired: Hearing aids. November 13, 1987; American Speech-Language-Hearing Association, New Orleans, Louisiana
39. **Popelka**, GR: CID hearing aid fitting method: PHASE IV. November 13, 1987; American Speech-Language-Hearing Association, New Orleans, Louisiana
40. **Popelka**, GR: Hearing aid evaluation: General principles. January 27-29, 1988; Lexington Center, New York, New York
41. **Popelka**, GR: Speech audiometry for children with cochlear implants. January 16, 1989; University of Iowa, Iowa City, Iowa
42. **Popelka**, GR: Effects of certain auditory factors on individual susceptibility to noise. January 22, 1990; Consensus Development Conference on Noise and Hearing Loss, National Institutes of Health, Washington, D.C.

43. **Popelka**, GR: Assessment of the auditory system from measurements of otoacoustic emissions. May 17, 1994; Biological and Biomedical Engineering Workshop, Washington University, St. Louis, Missouri
44. **Popelka**, GR: Biomedical science and the internet. April 14, 1995; Southern Illinois University School of Medicine, Springfield, Illinois
45. **Popelka**, GR: Distortion product otoacoustic emissions: basic and clinical issues. April 14, 1995; Department of Otolaryngology, Southern Illinois University School of Medicine, Springfield, Illinois
46. **Popelka**, GR: Information sharing via the internet. March 22, 1995; Department of Otolaryngology, Washington University School of Medicine, St. Louis, Missouri
47. **Popelka**, GR: Otoacoustic emissions. October 13, 1995; Audiology: The Scope of Practice Conference, St. Louis University and the Missouri Academy of Audiology, St. Louis, Missouri
48. **Popelka**, GR, Santi, PA, Brownell, WE, and Tabibzadeh, S: Should the Association for Research in Otolaryngology publish a peer-reviewed electronic journal? February 5, 1997; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
49. **Popelka**, GR, *et al.*: A proposal for a peer-reviewed ARO journal. February 16, 1998; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
50. **Popelka**, GR: Development of language and speech of deaf children identified early – Case examples. February 10, 2001; American-Speech-Language-Hearing-Association, St. Petersburg Beach, Florida
51. **Popelka**, GR: Current Issues in Universal Neonatal Hearing Screening, May 30, 2002; NHS2002: International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Como, Italy (With Dauman, R, Hall, III, JW, Kileny, P, Norton, S, and Slinger, Y)
52. **Popelka**, GR: An Interview with Gerald Popelka, August 27, 2002; Audiology Online
53. **Popelka**, GR: Focus Group on the Future of Early Hearing Detection and Intervention, October 31-November 2, 2003; International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Lake Orta, Italy
54. **Popelka**, GR: Hyperbilirubinemia in the Developing Neonate. November 14, 2003; Yale University Medical School, New Haven Connecticut
55. **Popelka**, GR: Auditory Function in the Developing Neonate, February 2, 2004; William Beaumont Medical Center, Royal Oaks, MI
56. **Popelka**, GR: Emerging Non-Invasive Measures of Biologic Processes, November, 2004; Stanford Otology & Neurotology Update 2004, San Francisco, CA
57. **Popelka**, GR: The Latest in Hearing Aids, November 3, 2006, Stanford Otology & Neurotology Update 2006, San Francisco, California
58. **Popelka**, GR: Recent Advances in Hearing Assessment, November 4, 2006, Stanford Otology & Neurotology Update 2006, San Francisco, California
59. **Popelka**, GR: Hyperbilirubinemia and the Developing Auditory System, November 30, 2006; Society for Ears Nose and Throat AC, San Francisco, California

60. **Popelka**, GR: Simulation-Based Learning and Auditory Function, December 6, 2007, 2nd Annual CISL Research and Development Symposium, Stanford University, Stanford, California
61. **Popelka**, GR: Hearing Loss and Hearing Aids, June 4, 2008, Health Library Series, Stanford University, Stanford, California
62. **Popelka**, GR: Latest Technological Advances in Hearing Aids, November 7, 2008 Stanford Otology & Neurotology Update 2008, San Francisco, California
63. **Popelka**, GR and Chang, KW: Practical Methods for Monitoring Ototoxicity in Chemotherapy Patients, December 1, 2009, Cancer Education Seminar Series, Stanford University Cancer Center, Stanford, California
64. **Popelka**, GR: The SoundBite Hearing System, October 16, 2011, Annual Fall Research Forum, House Ear Research Institute, Los Angeles, California
65. **Popelka**, GR: Latest Technology in Hearing Aids, May 9, 2012, Hearing Loss Association of America, San Jose, California
66. **Popelka**, GR: Audiology and Electronic Medical Records: Current Status, September 22, 2012, California Academy of Audiology, Berkeley, California
67. **Popelka**, GR: Current Options for Single Sided Deafness, November 3, 2012, Stanford Otology & Neurotology Update 2012, Stanford, California
68. **Popelka**, GR: Teletherapy and Infant Language Development, October 7, 2013, Flinders University, Adelaide, Australia
69. **Popelka**, GR: Open Horizon: Innovative 'Hearing' With Your Teeth, October 26, 2013 Open Forum Otolaryngology Meeting, Colorado Springs, Colorado, 2013
70. **Popelka**, GR: Devices for Bone Conduction Hearing, February 23, 2014, Association for Research in Otolaryngology, San Diego, California
71. **Popelka**, GR: Single-Sided Deafness Management and Treatment, January 30, 2014, Illinois Academy of Audiology, Chicago, Illinois
72. **Popelka**, GR: Latest Technology for Hearing Restoration, November 8, 2014, Stanford Otology & Neurotology Update 2014, Stanford, California
73. **Popelka**, GR: Current and Future Hearing Aid Technology, April 7, 2015, Flinders University, Adelaide, Australia
74. **Popelka**, GR: State of the Art in Tinnitus Intervention, November 5, 2016, Stanford Otology & Neurotology Update 2016, Stanford, California
75. **Popelka**, GR: Wearable Hearing Devices, February 20, 2019, Stanford eWEAR Annual Meeting, Stanford, California
76. **Popelka**, GR: Wearable Hearing Devices (Hearables), April 26, 2019, Stanford Center for Research in Music and Acoustics Hearing Seminar, Stanford California

21. Peer Reviewed Presentations

1. **Popelka**, GR: Gestures and visual speech reception. November 18, 1970; American Speech-Language-Hearing Association, New York, New York
2. Margolis, RH and **Popelka** GR. Detection of tones in band-reject noise. Acoustical Society of America, May 19, 1978, Providence, Rhode Island
3. **Popelka**, GR: The implementation of frequency-selective amplification procedures. November 18, 1981; American Speech-Language-Hearing Association, Los Angeles, California
4. **Popelka**, GR: Clinical Advantages of a Digital Hearing Aid. November 19, 1983; American Speech-Language-Hearing Association, Cincinnati, Ohio
5. **Popelka**, GR: A unified digital hearing aid design and fitting procedure. November 19, 1983; American Speech-Language-Hearing Association, Cincinnati, Ohio
6. **Popelka**, GR: Audiologic findings in a child with a cochlear implant. November 19, 1983; American Speech-Language-Hearing Association, Cincinnati, Ohio
7. **Popelka**, GR: Selection of amplification for adults, infants and low-functioning children; Keynote Speaker. September 18-20, 1985; Fifth Annual Van Riper Lectures, Kalamazoo, Michigan
8. **Popelka**, GR and Mason, DI: Hearing aid gain with coupler, functional, and probe-tube measurements. November 22-25, 1985; American Speech-Language-Hearing Association, Washington, D.C.
9. **Popelka**, GR, Geers, AE, Moog, JS, and Calvert, DR: Predicting spoken language acquisition of deaf children. August 4-9, 1985; International Congress on Education of the Deaf, Manchester, England
10. **Popelka**, GR, Himelfarb, MZ, and Whyte, MP: X-Linked hypophosphatemia and auditory impairment. February 1-6, 1986; Association for Research in Otolaryngology, Clearwater, Florida
11. **Popelka**, GR: Assessment of hearing aid performance and benefits from amplification. November 17, 1989; American Speech-Language-Hearing Association, St. Louis, MO
12. **Popelka**, GR, Russo, M.: Development of speech perception assessment tools for hearing-impaired children. November 18, 1990; American Speech-Language-Hearing Association, Seattle, Washington
13. **Popelka**, GR, Davidson, L., Holstad, B.: Reassessment of the role of the educational audiologist. November 17, 1990; American Speech-Language-Hearing Association, Seattle, Washington
14. **Popelka**, GR, Mason, D, Russo, M: Evaluation of probe-tube measures of hearing aid maximum output. November 16, 1990; American Speech-Language-Hearing Association, Seattle, Washington
15. **Popelka**, GR, Mason, D, and Russo, M: Issues relating to individual and averaged measurements of real-ear SSPL-90. November 24, 1991; American Speech-Language-Hearing Association, Atlanta, Georgia

16. **Popelka**, GR, Russo, M, Mason, D, and Gilbert, R: Asymmetrical hearing loss: Predicting handicap from percent binaural hearing impairment. November 21, 1992; American Speech-Language-Hearing Association, San Antonio, Texas
17. **Popelka**, GR, Osterhammel, P, Nielsen, L, and Rasmussen, A: Growth of the $2f_1$ - f_2 distortion product otoacoustic emission with stimulus level in normal hearing humans. February 8, 1993; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
18. **Popelka**, GR, Karzon, R, and Ellis Arjmand, E: Growth of the $2f_1$ - f_2 distortion product otoacoustic emission for low-level stimuli in human neonates. February 7, 1994; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
19. **Popelka**, GR, Karzon, R, and Arjmand, E: Developmental characteristics of the $2f_1$ - f_2 distortion product otoacoustic emission (DPOAE) in human neonates. February 7, 1995; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
20. **Popelka**, GR: The relation between hearing sensitivity and the $2f_1$ - f_2 distortion product otoacoustic emission for low-level stimuli. February 7, 1995; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
21. **Popelka**, GR, Karzon, RK, and Clary, RA: Noise floor characteristics of distortion product otoacoustic emission measurements in human neonates. February 2, 1997; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
22. **Popelka**, GR, Santi, PA, Brownell, WE, Neely, S, Salt, AN, Schulte, BA: A Proposal for a Peer-Reviewed ARO Journal. February 16, 1998; Association for Research in Otolaryngology St. Petersburg Beach, Florida
23. Popper, AN and **Popelka**, GR: A proposal to create an ARO peer-reviewed journal. February 14, 1999; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
24. **Popelka**, GR, Causevic, EM, Morley, RE, and Ellsworth, AR: Spectral content of noise from isolated sources during distortion product otoacoustic emissions measurements. February 15, 1999; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
25. Popper, AN and **Popelka**, GR: Further discussion of a proposal to create an ARO peer-reviewed journal. February 17, 1999; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
26. **Popelka**, GR, Causevic, EM, Krohn, R., Morley, RE, Wickerhauser, VM, Zhao, J. and Walden, R.: Interaction of environmental noise, measurement type, and digital signal processing for universal neonatal auditory screening. February 21, 2000; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
27. **Popelka**, GR, and Moog, JS: Development of language and speech of deaf children identified early. October 12, 2000; International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Milan, Italy
28. Causevic, E, Causevic, E. and **Popelka**, GR: Application of artificial intelligence for automated infant hearing screening and diagnosis. October 12, 2000; International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Milan, Italy
29. **Popelka**, GR, Causevic, E, Krohn, RJ and Karzon, RK: Spectral content of ambient noise in typical hospital nurseries. October 12, 2000; International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Milan, Italy

30. Causevic, EM, Wickerhauser, Causevic, E and **Popelka**, GR: Wavelet transform analysis and noise reduction for auditory evoked responses. February 5, 2001; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
31. Causevic, E, Causevic, E. and **Popelka**, GR: Application of artificial intelligence for automated infant hearing screening and diagnosis. March 22, 2001; New Frontiers in the Amelioration of Hearing Loss. Central Institute for the Deaf, St. Louis, Missouri
32. **Popelka**, GR, Causevic, E, Krohn, RJ and Karzon, RK: Spectral content of ambient noise in typical hospital nurseries. March 22, 2001; New Frontiers in the Amelioration of Hearing Loss. Central Institute for the Deaf, St. Louis, Missouri
33. Causevic, EM, Wickerhauser, Causevic, E and **Popelka**, GR: Wavelet transform analysis and noise reduction for auditory evoked responses. March 22, 2001; New Frontiers in the Amelioration of Hearing Loss. Central Institute for the Deaf, St. Louis, Missouri
34. **Popelka**, GR, Causevic, E, Karzon, RK and Parthasarathy, TK: Measurement Principles for Neonatal Auditory Screening. April 24, 2001; American Academy of Audiology, San Diego, California
35. **Popelka**, GR, Hall, III, JW, Smith, SD, Davis, II, WN: Short-Term Maturation of the Neonate Auditory Brainstem Response. January 29, 2002; Association for Research in Otolaryngology, St. Petersburg Beach, Florida
36. **Popelka**, GR, Causevic, E, Karzon, RK and Parthasarathy, TK: Neonatal Hearing Screening Test Protocols and Measures. April 20, 2002; American Academy of Audiology, Philadelphia, Pennsylvania
37. Hall, III, JW, Smith, SD, Davis, II, WN and **Popelka**, GR: Combined automated auditory brainstem response and otoacoustic emissions measurement in infancy. May 30, 2002; NHS2002: International Conference on Newborn Hearing Screening, Diagnosis and Intervention, Como, Italy
38. **Popelka**, GR: The One-Two of Universal Neonatal Hearing Screening, October 10, 2003; National Association of Neonatal Nurses, Palm Springs, CA
39. **Popelka**, GR: Auditory Function and Hyperbilirubinemia in the Developing Neonate, December 7, 2003; Hot Topics in Neonatology, Washington, DC
40. **Popelka**, GR, Martinosky, JW, Walden, RE and Gourley, GR: Auditory Function and Hyperbilirubinemia in the Developing Neonate, Association for Research in Otolaryngology, Daytona Beach Florida, February 25, 2004
41. **Popelka**, GR: New Technology from Everest Biomedical, American Auditory Society, Phoenix, AZ, March 7, 2004
42. **Popelka**, GR, Engel, RR, Martinosky, JE, Himelfarb, MZ, Barak, M, Gourley, GR: A Multi-Center Study of Neonatal Breath Carbon Monoxide Using a New Non-Invasive Approach, Pediatric Academic Society, San Francisco, May, 2004
43. **Popelka**, GR: Total Serum Bilirubin Levels and Auditory Brainstem Function in the Developing Neonate, Association for Research in Otolaryngology, New Orleans, Louisiana, February 21, 2005

44. Vreman, HJ, Wong, RJ, Stevenson, DK, McClatchie, EA, **Popelka**, GR, Rolf R. Engel: A New, Portable, Bedside ETCOC Measuring Device: Evaluation of Linearity, Accuracy, and Precision versus Gas Chromatography, Pediatric Academic Society, Washington DC, May, 2005
45. Engel, RR, **Popelka**, GR, Vreman, HJ, Stevenson, DK, Martinosky, J: Breath End Tidal Carbon Monoxide Measurement Improves Prediction of Need for Phototherapy in Neonates with Maternal Blood Type Incompatibility, Pediatric Academic Society, Washington DC, May, 2005
46. Monfared A, Blevins NH, Cheung ELM, Jung J, **Popelka** G, Chang K, Jackson R, Schnitzer M: Fluorescence Microendoscopy of the Mammalian Inner Ear, American Neurotology Society Spring COSM, Boca Raton, Florida, May 14-15, 2005
47. **Popelka**, GR: Total Serum Bilirubin Levels and Auditory Brainstem Function in the Developing Neonate, Pediatric Academic Society, Washington DC, May, 2005
48. **Popelka**, GR: New Technology in Neurotology, Keynote Speaker, Otology & Neurotology Conference, Tel Aviv, Israel, June 10, 2005
49. **Popelka**, GR and Kent, RD: Dynamics of Speech and Swallowing, Association for Research in Otolaryngology, Baltimore, Maryland, February 5, 2006
50. Santos, JM, Butts, K, **Popelka** GR and Pauly JM: Real-Time MRI of Speech and Swallowing in Upright Position, International Society for Magnetic Resonance in Medicine: Dynamic Interactive Imaging and its Applications, Santa Monica, California, February 22-24, 2006
51. Cheung, ELM, Monfared, A, **Popelka**, G, Blevins, NH, M.J. Schnitzer, MJ: In vivo assessment of mammalian auditory hair cell functionality using fluorescence microendoscopy, Society for Neuroscience, Atlanta, Georgia, October 14-18, 2006
52. Santos, JM, Butts, K, **Popelka** GR and Pauly JM: Real-Time MRI of Speech and Swallowing in Upright Position, International Society for Magnetic Resonance in Medicine, SMRT 16th Annual Meeting, Berlin, Germany, May 19-25, 2007
53. Cheung, E, Monfared, A, **Popelka**, GR, Blevins, N, Schnitzer, M: *In vivo* imaging and functional assessment of mammalian auditory hair cells using one- and two-photon fluorescence microendoscopy, Association for Research in Otolaryngology, Denver, Colorado, February 10, 2007
54. Barrera, JE, Forest, VI, Holbrook, AB, **Popelka**, GR: Predictors of Airway Obstruction in Adult Sleep Apnea; Research Forum, American Academy of Otolaryngology, Washington DC, September 16, 2007
55. Holbrook AB, Barrera JE, Santos JM, Butts-Pauly K, **Popelka** GR: Real Time Sleep MRI and Physiologic Monitoring of Patients with Obstructive Sleep Apnea; International Society for Magnetic Resonance in Medicine, Toronto, Ontario, Canada, May 3-9, 2008
56. Vreman, HJ, Wong, RJ, McClatchie, EA, **Popelka**, GR and Stevenson, DK: A New Portable Hand Held ETCOC Measuring Device: Evaluation of Linearity, Accuracy and Precision Versus Gas Chromatography, Breath Analysis for Biomedicine and National Security Sensor Design Issues and Strategies for National Security: Sensor Design Issues and Strategies for Biomarker Discovery Workshop, University of California-Davis, CA, September 8-9, 2008

57. **Popelka**, GR, Barak, N, Himelfarb M, Gourley, GR, Vreman, HJ, Wong, RJ, and Stevenson, DK: End Tidal Breath Carbon Monoxide Measurements: Normative Studies. Breath Analysis for Biomedicine and National Security Sensor Design Issues and Strategies for National Security: Sensor Design Issues and Strategies for Biomarker Discovery Workshop, University of California-Davis, CA, September 8-9, 2008
58. Barrera, JE, Holbrook, AB, Santos, J, **Popelka**, GR: Pulse Arterial Tone and Airway Obstruction in Sleep Apnea; Research Forum, American Academy of Otolaryngology, Chicago, IL September 21-24, 2008
59. Puria, S, O'Connor, K, Yamada, H, Shimizu, Y, **Popelka**, GR, Steele, C: Do otoacoustic emissions travel in the cochlea via slow or fast waves?, Association for Research in Otolaryngology, Baltimore, Maryland, February 16, 2009
60. **Popelka**, GR, Derebery J, Blevins, NH, Murray, M, Moore BCJ, Sweetow, RW, Wu B: Evaluation of a New Device for Single Sided Deafness; American Auditory Society, Scottsdale, Arizona, March 7, 2009
61. **Popelka**, GR, Telukuntla, G, Puria, S.: Auditory Thresholds by Bone Conduction for High Frequencies, American Academy of Audiology, Dallas, Texas, April, 2, 2009
62. **Popelka**, GR, Derebery J, Blevins, NH, Murray, M, Moore BCJ, Sweetow, RW, Wu, B, Centore, L, Katsis, M: Evaluation of a New Device for Single Sided Deafness; American Otological Society, Phoenix, Arizona, May 30, 2009
63. **Popelka**, GR, Telukuntla, G, Puria, S: Auditory Thresholds by Bone Conduction for High Frequencies, 5th International Symposium on Middle Ear Mechanics in Research and Otolaryngology, Stanford University, Stanford CA, June 28, 2009
64. Barrera, JE, Chang, RC, **Popelka**, GR: Reliability of airway obstruction analysis from sleep MRI; Research Forum, American Academy of Otolaryngology, San Diego, CA October 4-7, 2009
65. Tidmarsh, GF, Vreman, HJ, **Popelka**, GR and Stevenson, DK: A Hand-Held End Tidal Carbon Monoxide (CO) Measurement Device for Quantification Of Hemolysis In Newborns; Second Annual Workshop on Breath Analysis for Biomedicine and National Security, SRI International, Palo Alto, CA, November 16, 2009
66. Delgado, RE, **Popelka**, GR, Yavuz, E, Lopez, CN: AEP and OAE Simulator for Newborn Hearing Screening Training; NHS 2010 Conference, Cernobbio (Como Lake), Italy, June 8-10, 2010
67. **Popelka**, GR: Laboratory and Clinical Measures of a Novel Bone Conduction Device for Single Sided Deafness; American Academy of Audiology, San Diego, CA, April 15, 2010
68. Proulx, TL, **Popelka**, GR: Development of an invisible and removable intra-oral tissue conduction microphone for hearing device applications; International Hearing Aid Research Conference, Lake Tahoe, CA, August 19, 2010
69. Murray, M, **Popelka**, GR, Miller, R, Tucker, J, Dolan, R: Bone Conduction via Teeth for Unilateral Deafness, Validated; American Academy of Otolaryngology, Boston, Massachusetts, September 28, 2010
70. Batts, S, Cheung, E, Monfared, A, Blevins, N, **Popelka**, G, Schnitzer, M: In Vivo Imaging of Functional Mammalian Hair Cells with Fluorescence Microendoscopy, Association for Research in Otolaryngology, Baltimore, Maryland, February 21, 2011

71. **Popelka**, GR, Derebery, MJ, Murray M, Miller R: Efficacy And Safety Of An In-The-Mouth Bone Conduction Device For Single Sided Deafness, Third International Symposium on Bone Conduction Hearing – Craniofacial Osseointegration Meeting, Sarasota, Florida, March 26, 2011
72. **Popelka**, GR, and Swanson, A: Audiology and Electronic Medical Records: Getting Closer, American Academy of Audiology Annual Meeting, Chicago, Illinois, April 8, 2011
73. Murray M, and **Popelka**, GR: Long Term Clinical Findings for a Novel Bone Conduction Device for Single Sided Deafness, AOS/COSM Spring Meeting Scientific Sessions, Chicago, Illinois, May 1, 2011
74. Larky, J, Loy, M, Friedlander, E, **Popelka**, G and Blevins, N: Reconsidering Cochlear Implantation in Subjectively Sub-Optimal Pediatric Candidates: 13th Symposium on Cochlear Implants in Children, Chicago, Illinois July 14-16, 2011
75. Pikhart, KN, **Popelka**, GR, Sisto, R, Moleti, A, Oghalai, JS, Xia, A, Puria, S: Stimulus Frequency Otoacoustic Emissions (SFOAEs) in Wild Type and TECTA Mice, Mechanics of Hearing, 11th International Workshop, Williamstown, Massachusetts, July 16-22, 2011
76. **Popelka**, GR, and Moore, BCJ, Evaluation of Methods for Comparing Devices for Unilateral Hearing Loss, Fourth International Meeting on Bone Conduction Hearing, Newcastle-on-Tyne, England, June 6-8, 2013
77. **Popelka**, GR, Gurgel, R, and Shelton, C, A Long Term Multi-Site Study of the Safety and Benefit of the SoundBite Hearing System, Fourth International Meeting on Bone Conduction Hearing, Newcastle-on-Tyne, England, June 6-8, 2013
78. **Popelka**, GR, Tinnitus Demographics, Current Interventions and Sound Therapy Delivered by Hearing Aids, International Hearing Aid Research Conference: IHCON 2016, Lake Tahoe, California, August 10-14, 2016
79. Pauly, KB, Mohammadjavadi, M, Kubanek, J, Leung, S, Webb, T, **Popelka**, G, Ye, P, Gaur, P, Brown, J, Pascal-Tenorio, A, Newsome, B, Moore, T, Saenz, Y, Focused Ultrasound: From Movement Disorders, to BBB Opening to Neuromodulation, Stanford Neurosciences Institute Retreat, Watsonville, California, May 6-8, 2018
80. Mohammadjavadi, M, Peiyong Ye, P, Xia, A, Brown, J, **Popelka**, G, Pauly, KB, Elimination of Peripheral Auditory Pathway Activation Does Not Affect Motor Responses from Ultrasound Neuromodulation, 3rd International Brain Stimulation Conference, Vancouver, Canada, February 24-27, 2019
81. Pauly, KB, Mohammadjavadi, M, Peiyong Ye, P, Xia, A, Brown, J, Sayyid, Z, Watkins, R, Lundberg Y, **Popelka**, G, What Are We Stimulating with Transcranial Focused Ultrasound in Mice?, The BRAIN Initiative Investigators Meeting, Washington, DC, April 11-13, 2019
82. Pauly, KB, Mohammadjavadi, M, Leung, S, Webb, T, Gaur, P, Kubanek, K, Saenz Y, **Popelka**, G, Li, N, MR-guided Focused Ultrasound Neuromodulation of Deep Brain Structures, The BRAIN Initiative Investigators Meeting, Washington, DC, April 11-13, 2019
83. Mohammadjavadi, M, Gaur, P, Kubanek, J, Saenz, Y, **Popelka**, G, Pauly, KB, Transcranial Focused Ultrasound Neuromodulation of the Visual System in a Large Animal (Sheep), International Society for Therapeutic Ultrasound, Barcelona, Spain, June 13-15, 2019

84. Mohammadjavadi, M, Gaur, P, Kubanek, J, Saenz, Y, Glover, GH, **Popelka, GR**, Norcia, A, Butts Pauly, K, Transcranial Focused Ultrasound Neuromodulation of the Lateral Geniculate Nucleus in a Large Animal Model, Focused Ultrasound Neuromodulation Symposium, Oriel College University of Oxford, Oxford, England, September 23-24, 2019

22. Continuing Education

- 1997 Molecular biology techniques and applications to otolaryngology, Short course of the Association for Research in Otolaryngology, February 1, 1997
- 1998 Techniques used in evaluating cochlear function, Short course of the Association for Research in Otolaryngology, February 14, 1998
- 1999 Anatomical techniques for research in otolaryngology, Short course of the Association for Research in Otolaryngology, February 13, 1999
- 2000 Introduction to psychoacoustic research: Methods and terminology, Short course of the Association for Research in Otolaryngology, February 19, 2000
- 2001 Non-Syndromic Deafness: Clinical issues and research opportunities, Short course of the Association for Research in Otolaryngology, February 3, 2001
- 2002 Neuroethology: What birds, bats, and bullfrogs can tell us about speech perception, Short course of the Association for Research in Otolaryngology, January 26, 2002
- 2003 Vestibular System 101: Introduction to Vestibular System Structure and Function for Non-Experts, Short course of the Association for Research in Otolaryngology, February 22, 2003
- 2004 Embryonic Stem Cells: From Cell Culture to Clinic, Short course of the Association for Research in Otolaryngology, February 21, 2004
- 2004 Otology & Neurotology Update, San Francisco, California, November 4, 2004
- 2006 Otology & Neurotology Update, San Francisco, California, November 3, 2006
- 2008 Otology & Neurotology Update, San Francisco, California, November 7, 2008
- 2010 Otology & Neurotology Update, Stanford, California, November 4, 2010
- 2011 Fall Research Forum, House Ear Institute, Los Angeles, California, October 15, 2011
- 2012 California Academy of Audiology, Berkeley, California, September 22, 2012
- 2012 Otology & Neurotology Update, Stanford, California, November 1, 2012

2014 Otolology & Neurotology Update, Stanford, California, November 6, 2014

2016 Otolology & Neurotology Update, Stanford, California, November 3, 2016

23. Service

a. Committee Memberships

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|-----------|--|
| 1980-1986 | Convention Committee Chairman, Technical Sessions,
American Speech-Language-Hearing Association |
| 1981 | Convention Committee Member, Technical Sessions,
American Speech-Language-Hearing Association |
| 1982 | Ad Hoc Study Section Member, National Institutes of Health,
Washington, D.C., March, 1982 |
| 1983 | Workshop Director: Computer Assisted Hearing Aid Evaluation,
St. Louis, Missouri |
| 1983 | Site Visit Member, National Institutes of Health, San Francisco,
California, December, 1983 |
| 1984 | External Advisory Committee Member, National Institutes of
Health Program Project, "Neuro-Otology Clinical Research
Center", Baylor School of Medicine, Houston, Texas |
| 1986 | Publication Committee Member, Association for Research in
Otolaryngology |
| 1986 | Revenue Committee Member, Association for Research in
Otolaryngology |
| 1989-1992 | Advisor for Committee on Hearing, Bioacoustics, and
Biomechanics (CHABA) |
| 1993 | Ad Hoc Study Section Member, National Institutes of Health,
Washington, D.C., August, 1993 |
| 1996-1998 | Ad Hoc Scholarly Publication Committee Chair, Association for
Research in Otolaryngology |
| 1998-2001 | Ad Hoc Scholarly Publication Committee Co-Chair, Association
for Research in Otolaryngology |
| 1998 | Reviewer for Fellowship applications, Association of Teachers
of Preventive Medicine |
| 2001-2009 | Member, Healthy Hearing Audiology Advisory Board,
Audiology Online |
| 2001 | Ad Hoc Study Section Member, National Institutes of Health,
Washington, D.C., November, 2001 |
| 2002 | Ad Hoc Study Section Member, National Institutes of Health,
Washington, D.C., July, 2002 |

- 2003 Ad Hoc Study Section Member, National Institutes of Health, Washington, D.C., July, 2003
- 2004-2009 Member, Mentors Directory for Deaf and Hard-of-Hearing (HoH) Individuals, National Institutes on Deafness and Other Communication Disorders, National Institutes of Health, Washington, D.C.
- 2009 Member, Organizing Committee, 5th International Symposium on Middle Ear Mechanics in Research and Otolaryngology, Stanford University, Stanford CA, June 24-28, 2009
- 2009-2019 Board Member, Baker Institute for Hearing Impaired Children, Palo Alto, CA
- 2015- Member, Founding Grant Society, Stanford University, Stanford CA

b. Volunteer Activities

- 1988 Judge, Monsanto/St. Louis Post Dispatch Science Fair of Greater St. Louis
- 1998-2000 Presenter, Washington University Book Awards to High School Juniors
- 1996-2000 Contributor, Mad Scientist website, wrote responses to 19 inquiries concerning sound and audition
- 2000- Contributor, Audiology Online website, wrote responses to inquiries concerning audiology
- 2007 Contributor, Living History Project, Stanford University
A first person oral history of political activism for the civil rights and anti-war movements of the 1960s
- 2015- Member, Stanford Founding Grant Society, Stanford University