

Gerald R. Popelka, Ph.D.

May 1, 2022

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
Phone: 650-736-2667
E-mail: gpopelka@stanford.edu
Web: <https://profiles.stanford.edu/gerald-popelka>

4. Present Position

- 2004- School of Medicine, Stanford University, Stanford California
Professor of Otolaryngology, Consulting 2004-
Professor of Neurosurgery, Adjunct 2017-2018
Chief of Audiology, 2005-2015
Senior Scientist in Radiology, 2018-
- 2000- School of Medicine, Washington University, St. Louis, Missouri
Professor of Otolaryngology, Adjunct

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

2000-2004 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 (six 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
2013-2021	Undergraduate Advisor, Newcomer Program (4-10 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
2021-	Undergraduate Advisor, Wayfinder Program (2-4 students/year)

8. Certification and Licenses

1970-2022	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*
- 1980- Editorial Reviewer, 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*
- 2020- *Journal of Otology*
- 1980- Grant Reviewer, National Institutes of Health, AUD Study Section
Site visitor, Houston, Texas, 1980,
Site visitor, San Francisco, California, 1983,
Ad Hoc Member, Washington, DC, 1993, 2001, 2002

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 (Fellow)
1978-	Member, Association for Research in Otolaryngology
1997-2000	Member, Society for Neuroscience
1999-2008	Member, American Auditory Society
2004-	Member, American Academy of Audiology (Fellow)

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

- 2010-2019 Member, Board of Trustees, Baker Institute for Children with Hearing Loss, Palo Alto, CA
- 2016- Medical Monitor, Clinical Studies, Smith+Nephew Austin, TX
- 2017- Member, Scientific Advisory Board, SoundMed, LLC, Shanghai, 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 Tass, PA, Principal Co-Investigator, **Popelka**, GR, Co-Investigator
Tinnitus Neuromodulation and 3D EEG Imaging
Department of Neurosurgery
Stanford University
\$800,000

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

16. Clinical Titles and Responsibilities

- 1974-1976 Director of Audiology, Department of Otolaryngology
New York University School of Medicine, New York. NY
Directed and managed a comprehensive outpatient and inpatient audiology clinic that employed an average of twelve audiologists who saw approximately 10,000 patients annually. Patients ranged in age from neonate to elderly. All audiologic services were provided.
- 1980-1996 Head of Audiology, Central Institute for the Deaf
St Louis MO
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, Stanford CA
Created, directed and managed a comprehensive outpatient and inpatient audiology clinic that employed an average of ten audiologists who saw approximately 11,500 patients annually ranging in age from neonate to elderly. All audiologic and vestibular services were provided.
- 2009-2015 Co-Founder and Co-Director Stanford Balance Center
Stanford University School of Medicine, Stanford CA
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 Titles 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 Lecturer, Electrical Engineering, Seminar in Hearing Disorders, Graduate students
 - 2004- Independent Studies, Electrical Engineering (EE 190), Digital signal processing, Undergraduate students
 - 2004- Independent Studies, Electrical Engineering (EE 390, EE 391) Digital signal processing, Graduate students
- d. School of Medicine, Stanford University
- 2004-2017 Lecturer, Otolaryngology residents
 - 2004-2017 Lecturer, Clerkships and Medical students
 - 2004- Mentor, Otolaryngology surgical fellows (1-2 per year)
 - 2006-2011 Triologic Thesis Advisor, Otolaryngology, Jose E. Barrera, MD, Sleep Magnetic Resonance Imaging: Dynamic Characteristics of the Airway During Sleep in Obstructive Sleep Apnea Syndrome
 - 2007-2008 Dissertation Committee Member, Electrical Engineering (EE 801), Ryan Cassidy, PhD, Auditory Signal Processing to Improve Impaired Listening Experiences Via Efficient, Loudness-Based Algorithms
 - 2013-2021 Lecturer, Anatomy, Anatomy in Society (SURG 72Q)
 - 2015-2021 Student Advisor, Pre-major undergraduates, Newcomer Program (8-12 students per year)
 - 2018-2019 Dissertation Committee Member, Bioengineering, Patrick Ye, PhD, Ultrasound Neuromodulation: Optimization, Mechanisms, and Confounds
 - 2018- Dissertation Committee Member, Music, Alex Chechile, PhD, Practical Applications of Difference Tones in Electronic Music Composition and Synthesis
 - 2018-2020 Dissertation Committee Member, Bioengineering, Steven Leung, PhD A Hybrid Angular Spectrum Simulation Framework for Safer and More Efficient Focussed Ultrasound Brain Treatments
 - 2019- Dissertation Committee Member, Bioengineering, Mi Hyun Choi, How Changes in Ultrasound Signal Parameters Affect Cell-Type Activations
 - 2021- Student Advisor, Pre-major undergraduates, Wayfinder Program (2-4 students per year)
 - 2019-2022 Independent Studies, Radiology (RAD 199), Tom Pritsky, Computer Science undergraduate student, Real time integration of facial, text and audio to enhance communication ability in the hearing impaired using artificial intelligence and augmented reality
 - 2022 Lecturer, Genetics, How We Age: Hearing (GENE 229)
 - 2022- Lecturer, Anatomy, Anatomy and Design Innovations (SURG 172)

18. Patents and Intellectual Property

- 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 current 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
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
2020	Multi-Modal wearable communication device, Co-Inventors: Pritsky, T and Popelka , GR, Docket 20-231, Assigned to Stanford University, In process
2021	Device and Method for Hearing Threshold Adapted Acoustic Stimulation #10,933,213, March 2, 2021, Inventors: Popelka , GR and Tass, PA, Docket 16-272, Assigned to Stanford University, Priority date Aug 12, 2016, Applied internationally, PCT/US2017/043151

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. Berger, KW and **Popelka**, GR: Extra-facial gestures in relation to speechreading. Journal of Communication Disorders 1971; 3: 302-308
3. **Popelka**, GR and Berger, KW: Gestures and visual speech reception. American Annals of the Deaf 1971; 116(4): 434-436
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
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139. 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 (Revision in process)

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 Sininger, 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 ETCO₂ 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, Ye PP, Xia A, **Popelka** G, Pauly KB, Auditory Phenomenon as a Potential Confounding Variable in Ultrasound-Stimulated Motor Responses, International Society for Therapeutic Ultrasound (ISTU), Nashville, Tennessee, May, 2018

81. Mohammadjavadi M, Ye PP, Xia A, **Popelka** G, Pauly KB, Is ultrasound-elicited motor response in rodents an acoustic startle reflex?, 6th International Symposium on Focused Ultrasound, Reston, Virginia,. October, 2018
82. 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
83. 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 Focussed Ultrasound in Mice?, The BRAIN Initiative Investigators Meeting, Washington, DC, April 11-13, 2019
84. 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, NIH 5th Annual BRAIN Initiative Investigators Meeting, Washington, DC, April 11-13, 2019
85. 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
86. 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
87. Mohammadjavadi, M, Gaur, P, Kubanek, J, Saenz, Y, Glover, GH, **Popelka**, GR, Norcia, Pauly, KB, Transcranial Focused Ultrasound Neuromodulation of Deep Brain Structures, NIH 6th Annual BRAIN Initiative Investigators Meeting, Held virtually (pandemic), June 1-3, 2020
88. Pauly, KB, Qiu, Z, Choi, MH, Mohammadjavadi, M, **Popelka**, GR, Transcranial Ultrasound Stimulation in Mice: Smoothed Waveforms Reduce the Auditory Confound, 10th International IEEE EMBS Conference on Neural Engineering, Held virtually (pandemic), May 4-6, 2021
89. Choi, MH, **Popelka**, GR, Pauly KB, A Novel Metric for Assessing Audibility of Transcranial Ultrasound Neuromodulation Signals. University of Oxford, Focused Ultrasound Neuromodulation Online Conference, September 7-10, 2021
90. Singh, K, Choi, MH, **Popelka**, GR, Pauly KB, Development of a Computational Tool to Guide Transcranial Ultrasound Signal Parameter Selection and Reporting. University of Oxford, Focused Ultrasound Neuromodulation Online Conference, September 7-10, 2021
91. Fu, F, Dai, E, **Popelka**, GR, Ghanouni, P, Pauly, KB, Human Skull imaging with Ultrashort TE and Zero TE MRI sequence. University of Oxford, Focused Ultrasound Neuromodulation Online Conference, September 7-10, 2021
92. Choi, MH, **Popelka**, GR, Pauly KB, A Computational Method To Predict Peripheral Auditory Activation During Transcranial Ultrasound Stimulation (TUS) In Mice, International Society for Therapeutic Ultrasound, Toronto, Canada, June 7-10, 2022

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 Otology & Neurotology Update, Stanford, California, November 6, 2014
- 2016 Otology & Neurotology Update, Stanford, California, November 3, 2016

23. Service**a. Committee Memberships**

- 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

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| 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 |
| 2019 | Poster Judge, Stanford Imaging Symposium, Sponsored by Stanford Department of Radiology and the Training in Biomedical Imaging Instrumentation Program, September 27, 2019, Clark Center Auditorium, Stanford University |
| 2019-2021 | Member, Steering Committee, Business Climate Leaders, a component of the Citizens Climate Lobby, a national nonpartisan grassroots advocacy group to help endorse the Energy Innovation and Carbon Dividend Act, the first bicameral, bipartisan carbon pricing bill introduced in Congress |
| 2020 | Member, Democratic Volunteer Center, Palo Alto CA, caller for phone banking project to encourage voter registration and support for Democratic candidates |