



Elizabeth DiRenzo

Assistant Professor of Otolaryngology/Head and Neck Surgery (Laryngology) at the Stanford University Medical Center and, by courtesy, of Music

Otolaryngology - Head & Neck Surgery Divisions

CONTACT INFORMATION

• Administrative Contact

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Bio

BIO

I received my Master's degree in speech language pathology from Purdue University in 2008. I then completed my Clinical Fellowship Year (CFY) at Indiana University Health – Arnett Hospital in Lafayette, Indiana. Following the completion of my Master's degree, I remained at Purdue and received my PhD in 2012 in laryngeal physiology with M. Preeti Sivasankar, PhD. I then completed postdoctoral training in the Department of Surgery, Division of Otolaryngology – Head & Neck Surgery at the University of Wisconsin-Madison in the laboratory of Susan L. Thibeault, PhD studying vocal fold biology.

I joined the Stanford faculty in 2014 as an Assistant Professor. My clinical interests include the evaluation and treatment of patients with voice, resonance, airway, and swallowing disorders.

My overarching research goal is to use techniques from the basic sciences and human clinical sciences to improve the prevention and management of voice disorders. My research program is directed at improving our understanding of the biologic barriers essential to vocal fold health. Specifically, I investigate how external factors implicated in the development of voice disorders, such as inhaled pollutants, bacteria, and viruses, compromise the function of the vocal fold epithelial and mucus barriers and how these changes may influence voice production. I am also interested in clinical and quality of life outcomes in patients with voice disorders undergoing surgical or behavioral interventions. My ultimate aim is to utilize my research findings to develop novel interventions to prevent and manage voice disorders.

ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Otolaryngology - Head & Neck Surgery Divisions
- Assistant Professor - Med Center Line (By courtesy), Music
- Member, Bio-X

HONORS AND AWARDS

- New Investigator Research Grant, American-Speech-Language-Hearing Foundation (2015)
- The Fall Voice Conference Travel Grant, National Spasmodic Dysphonia Association (2015)
- National Institutes of Health Extramural Loan Repayment Award for Clinical Research, National Institutes of Health (2013-)
- Meritorious Poster Submission, American Speech-Language-Hearing Association (2012)

- Third Place Poster Award, American Laryngological Society (2012)
- Alumni and Friends Award, Department of Speech, Language, and Hearing Sciences, Purdue University (2010)
- New Century Scholars Doctoral Scholarship, American-Speech-Language-Hearing Foundation (2010)
- Wilson Travel Scholarship, Department of Speech, Language, and Hearing Sciences, Purdue University (2010)
- Student Research Travel Award, American Speech-Language-Hearing Association (2009)
- Frederick N. Andrews Fellowship, Purdue Graduate School (2008)
- Outstanding Student Clinician in Speech-Language Pathology, Indiana Speech-Language-Hearing Association (2008)
- Travel Grant, Purdue Graduate Student Government (2008)
- Outstanding Student Clinician in Speech-Language Pathology, Indiana Lion's Club (2007)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Speech-Language-Hearing Association (ASHA) (2010 - present)
- Member, ASHA, Special Interest Group - 3: Voice and Voice Disorders (2010 - present)
- Member, ASHA, Special Interest Group - 13: Swallowing and Swallowing Disorders (2014 - present)

PROFESSIONAL EDUCATION

- Postdoctoral Fellowship, University of Wisconsin - Madison , Vocal Fold Biology (2014)
- Ph.D., Purdue University , Vocal Fold Physiology (2012)
- M.S., Purdue University , Speech Language Pathology (2008)
- B.S., Purdue University , Speech, Language, & Hearing Sciences (2006)

LINKS

- Stanford Voice and Swallowing Center: <http://med.stanford.edu/ohns/voicecenter/>

Publications

PUBLICATIONS

- **Endoscopic Management of Postradiation Dysphagia in Head and Neck Cancer Patients: A Systematic Review** *ANNALS OF OTOLARYNGOLOGY AND LARYNGOLOGY*
Abu-Ghanem, S., Sung, C., Junlapan, A., Kearney, A., DiRenzo, E., Dewan, K., Damrose, E. J.
2019; 128 (8): 767-73
- **Phonomicrosurgery simulation: A low-cost teaching model using easily accessible materials.** *Laryngoscope*
Zambricki, E. A., Bergeron, J. L., DiRenzo, E. E., Sung, C. K.
2016; 126 (11): 2528-2533
- **Vocal Tremor: Novel Therapeutic Target for Deep Brain Stimulation.** *Brain sciences*
Ravikumar, V. K., Ho, A. L., Parker, J. J., Erickson-DiRenzo, E., Halpern, C. H.
2016; 6 (4)
- **Early Cellular Response to Radiation in Human Vocal Fold Fibroblasts.** *The Annals of otology, rhinology, and laryngology*
Erickson-DiRenzo, E., Enos, G., Thibeault, S. L.
2016; 125 (5): 425-432
- **Deep brain stimulation for vocal tremor: a comprehensive, multidisciplinary methodology.** *Neurosurgical focus*
Ho, A. L., Erickson-DiRenzo, E., Pendharkar, A. V., Sung, C., Halpern, C. H.
2015; 38 (6): E6-?
- **Deep brain stimulation for vocal tremor: a comprehensive, multidisciplinary methodology** *NEUROSURGICAL FOCUS*
Ho, A. L., Erickson-DiRenzo, E., Pendharkar, A. V., Sung, C., Halpern, C. H.

2015; 38 (6)

- **Utility of cell viability assays for use with ex vivo vocal fold epithelial tissue.** *Laryngoscope*
Erickson-DiRenzo, E., Sivasankar, M. P., Thibeault, S. L.
2015; 125 (5): E180-5
- **Deep Brain Stimulation for Essential Vocal Tremor: A Technical Report.** *Cureus*
Ho, A. L., Choudhri, O., Sung, C. K., DiRenzo, E. E., Halpern, C. H.
2015; 7 (3)
- **A preliminary investigation of potential biases in phonation threshold pressure analysis.** *Journal of voice*
Sundarrajan, A., Erickson-Levendoski, E., Sivasankar, M. P.
2015; 29 (1): 22-25
- **Vocal Fold Ion Transport and Mucin Expression Following Acrolein Exposure** *JOURNAL OF MEMBRANE BIOLOGY*
Levendoski, E. E., Sivasankar, M. P.
2014; 247 (5): 441-450
- **Reducing the negative vocal effects of superficial laryngeal dehydration with humidification.** *The Annals of otology, rhinology, and laryngology*
Levendoski, E. E., Sundarrajan, A., Sivasankar, M. P.
2014; 123 (7): 475-81
- **Vocal fold epithelial barrier in health and injury: a research review.** *Journal of speech, language, and hearing research : JSLHR*
Levendoski, E. E., Leydon, C., Thibeault, S. L.
2014; 57 (5): 1679-91
- **Influence of Obligatory Mouth Breathing, During Realistic Activities, on Voice Measures** *JOURNAL OF VOICE*
Sivasankar, M. P., Erickson-Levendoski, E.
2012; 26 (6)
- **Role for Ion Transport in Porcine Vocal Fold Epithelial Defense to Acid Challenge** *OTOLARYNGOLOGY-HEAD AND NECK SURGERY*
Erickson-Levendoski, E., Sivasankar, M. P.
2012; 146 (2): 272-278
- **Acute Stress to Excised Vocal Fold Epithelium From Reactive Oxygen Species** *Combined Otolaryngology Spring Meeting (COSM)/132nd Annual Meeting of the American-Laryngological-Association/Annual Meeting of the American-Otological-Society*
Alper, R., Fu, X., Erickson-Levendoski, E., Zheng, W., Sivasankar, M.
WILEY-BLACKWELL.2011: 2180-84
- **Investigating the Effects of Caffeine on Phonation** *JOURNAL OF VOICE*
Erickson-Levendoski, E., Sivasankar, M.
2011; 25 (5): E215-E219
- **Simulated Reflux Decreases Vocal Fold Epithelial Barrier Resistance** *Annual Meeting of the American-Laryngological-Association*
Erickson, E., Sivasankar, M.
WILEY-BLACKWELL.2010: 1569-75
- **Evidence for Adverse Phonatory Change Following an Inhaled Combination Treatment** *JOURNAL OF SPEECH LANGUAGE AND HEARING RESEARCH*
Erickson, E., Sivasankar, M.
2010; 53 (1): 75-83
- **Hypertonic challenge to porcine vocal folds: Effects on epithelial barrier function** *OTOLARYNGOLOGY-HEAD AND NECK SURGERY*
Sivasankar, M., Erickson, E., Rosenblatt, M., Branski, R. C.
2010; 142 (1): 79-84
- **Short-Duration Accelerated Breathing Challenges Affect Phonation** *Annual Convention of the American-Speech-Language-Hearing-Association*
Sivasankar, M., Erickson, E.
JOHN WILEY & SONS INC.2009: 1658-63
- **Phonatory Effects of Airway Dehydration: Preliminary Evidence for Impaired Compensation to Oral Breathing in Individuals With a History of Vocal Fatigue** *JOURNAL OF SPEECH LANGUAGE AND HEARING RESEARCH*

Sivasankar, M., Erickson, E., Schneider, S., Hawes, A.
2008; 51 (6): 1494-1506