# Leanne J. Sayce, DPhil

formerly Leanne J. Carrott preferred name: Lea "Lee"

Research Assistant Professor of Communication Science and Disorders School of Health and Rehabilitation Sciences, University of Pittsburgh 5060B Forbes Tower, Pittsburgh, PA, 15260, USA 412-383-0635 (office) | lea.sayce@pitt.edu

#### Education

2010 – 2014 Wolfson College, University of Oxford, United Kingdom

DPhil Biochemistry

<u>Thesis:</u> Characterisation of *pitch*: an early-onset model of sensorineural hearing loss <u>Thesis Advisors:</u> Professor Steve Brown, Dr. Mike Bowl, Professor Jonathan Hodgkin

2006 – 2010 University of Surrey, United Kingdom

Biochemistry (Neuroscience), BSc (Hons) Upper Second-Class Honours (2.1)

Thesis: The Effect of Per3 Genotype on Maze-Running Entrainment in Knockout and Wild Type Mice

Thesis Advisors: Professor Simon Archer, Dr. Dan Van Der Veen

### **Academic Appointments**

2010 procept	Research Assistant Professor
zu io – bieseni	Research Assistant Professor

University of Pittsburgh, Pittsburgh, PA

2018 – 2020 Adjunct Instructor of Otolaryngology

Vanderbilt University School of Medicine, Nashville, TN

2015 Subject Head, Natural Sciences

Oxford Summer College, Oxford, United Kingdom

# **Research Appointments**

2017 – 2018	Senior Research Scientist

Vanderbilt University Medical Center, Nashville, TN

2016 – 2017 Research Term Professional

Vanderbilt University Medical Center, Nashville, TN

2015 Assistant Research Fellow

Chronos Therapeutics, Oxford, United Kingdom

2014 **Postdoctoral Research Assistant** (pending *viva voce* for doctoral degree)

MRC Harwell, United Kingdom

2008 - 2009 Clinical Data Analyst

SRA Global Clinical Development, Abingdon, United Kingdom

## **Awards**

2010 - 2014	Medical Research Council Doctoral Training Award
2011 – 2014	The Wolfson College, Oxford, Travel Award
2011 – 2013	Biochemistry Department Travel Award, University of Oxford
2013	The Genetics Society Junior Scientist Award
2012	Conference Fee Scholarship – The Mouse as an Instrument for Ear Research V
2012	The Genetics Society Training Grant

# **Extramural Research Support**

5R01DC016236; Rousseau (PI)

12/01/17 - 11/30/22

NIH, NIDCD

\$ 2,329,524

Development of a Patient Specific Planning Tool for Type I Laryngoplasty

The goal of this five-year project is to develop and validate a patient specific surgical planning tool for unilateral vocal fold paralysis.

Role: Co-Investigator

# **Pending Research Support**

NIH Stephen I. Katz Early-Stage Investigator Research Project Award, PAR-21-038 NIH, NIDCD

12/01/23 - 11/30/28

\$3,553,299

Mechanisms of Inflammation in Vocal Fold Injury

This proposal will characterize adaptive inflammation following vocal fold surgical injury and advance preclinical investigation by in vitro model validation, in silico model development, and therapeutic repurposing. This multidisciplinary approach will provide robust tools for preclinical development and personalized medicine approaches in vocal fold inflammation.

Role: Principal Investigator

NIH NIDCD Research Opportunities for New Investigators to Promote Workforce

12/01/23-11/30/28

Diversity funding opportunity, RFA-DC-23-001

NIH, NIDCD

\$2.930.537

Multiscale and Multiphysics Modeling of Vocal Fold Permeability for Restoration of Functional Phonation in Dysphonia This proposal will characterize the contribution of epithelial permeability in functional phonation. Using existing injury models, we will compromise epithelial barrier integrity and capture physiological, functional, and imaging data to develop pore-scale computational fluid dynamics models. This multidisciplinary approach will provide a robust predictive tool for preclinical investigation and clinical management of dysphonia.

Role: Principal Investigator

NSF Historically Black Colleges and Universities – Excellence in Research (HBCU – EiR),

09/30/23 - 09/28/26

NSF20542

Funding Agency: NSF

\$173,026 per year Direct Costs

Subject-Specific Modeling of Vaping Effects in Vocal Systems

We will investigate effects of chronic and acute e-cigarette ("vaping") injuries on the vocal system using in vivo and computational approaches. In vivo modelling of vaping will be conducted in C57BL/6J to inform numerical model reconstruction of the lung and upper respiratory tract. Multiphysics modeling will be performed, including fluid-heat and mass transfer to the tissue during vaping, tissue property changes due to vaping, and fluid structure interaction during breathing and phonation.

Role: Co-Investigator (PI: Li)

Grant #: NASA MUREP Space Technology Artemis Research (RFA: NNH23ZHA001N-MSTAR)

Dates: 08/01/2023 - 07/31/2026

NASA

Muscular Atrophy Effects of Long Duration Human Exploration Mission on Vocal Fold Adduction for Airway Protection The goal of this project is to simulate zero-gravity induced atrophy of the vocal folds, model zero-gravity effects using Multiphysics and poroelastic modeling, and to use this model to evaluate the utility of surface electrical stimulation as an intervention to counteract atrophic effects.

Role: Co-Investigator (PI: Li)

# **Completed Research Support**

5R01DC019566; Rousseau (PI)

04/01/22 - 03/31/27

\$ 2,687,767

NIH, NIDCD

Pharmacological Approaches for Transepithelial Delivery of Therapeutics to the Vocal Folds

The goal of this project is to leverage existing therapeutics to selectively regulate permeability enabling delivery of therapeutics across the vocal fold epithelium.

Role: Co-Investigator

5R01DC017397; Branski (PI)

08/01/16 - 07/30/22

NIH, NIDCD \$2,762,310

Development of a Patient Specific Planning Tool for Type I Laryngoplasty

The goal of this project is to investigate GC biology and glucocorticoid receptor (GR) function in models of VF injury and repair as well as interactions between GR and TGF-β and vocal fold epithelial barrier function.

Role: Co-Investigator

5R01DC015405; Rousseau (PI)

07/01/16 - 06/30/22

\$ 2.751.644

NIH, NIDCD

Pre-Clinical Testing of the Safety and Efficacy of Treatments for Voice Disorders

The goal of this project is to perform pre-clinical testing on the safety and efficacy of drugs used in the treatment of voice problems in humans.

Role: Principal Investigator

Investigator Initiated Study; Charles (PI)

04/01/17 - 12/01/18

Allergan

\$52,000

Prevalence of Comorbid Spasticity and Urinary Incontinence in Residents of a Long-Term Care Facility

The goal of this research is to identify if urinary incontinence can be used as a predictive factor for the diagnosis of spasticity, facilitating the expansion of a clinical algorithm in development by Dr. Charles's research team.

Role: Co-Investigator

# **Sponsored Investigations, Study Coordinator**

- 1. ULIS III: An International, Multicentre, Observational, Prospective, Longitudinal Cohort Study to assess the Impact of Integrated Upper Limb Spasticity Management including the use of BoNT-A Injections on Patient-Centred Goal Attainment in Real Life Practice. Ipsen Biopharmaceuticals. (clinicaltrials.gov NCT02454803).
- 2. Accordance: A Phase III, Multicenter, Randomized, Double-Blind, Double Dummy, Active-Controlled Study comparing the Efficacy and Safety of Gastric Retentive, Controlled Release Accordion Pill™ Carbidopa/Levodopa (AP-CD/LD) to Immediate Release CD/LD in Fluctuating Parkinson's Disease Patients. Intec Pharma. (clinicaltrials.gov NCT02605434).

#### **Peer-reviewed Publications**

- 1. <u>Carrott L</u>, Bowl MR, Aguilar C, Johnson S, Chessum L, West M, Morse S, Dorning J, Smart E, Hardisty-Hughes, Ball G, Parker A, Barnard A, MacLaren RE, Wells S, Marcotti W, Brown SDM. Absence of Neuroplastin-65 affects synaptogenesis in mouse inner hair cells and causes profound hearing loss. *Journal of Neuroscience* (2016); 36(1):222–234.
- 2. <u>Sayce L</u>, Hudson T, Heusinkveld L, Currie AD, Hacker M, Charles, D. (2016) Spasticity Diagnosis and Treatment in the United States A Priority for our Aging Population. *International Journal of Neurorehabilitation* 3: 216. doi:10.4172/2376-0281.1000216
- 3. Hudson TS.; Turchan M; Gill C; Currie AD.; **Sayce L**; Molinari A; Davis T; Phibbs F; Tolleson C; Meystedt J; Grisham C; Charles D; Hacker M. Inter-rater reliability of a novel spasticity diagnostic algorithm. *Tennessee Medicine E-Journal* (2018) 3(3):5.
- 4. Kimball EE, <u>Sayce L</u>, Powell M, Gartling GJ, Brandley J, Rousseau B. Different Vibratory Conditions Elicit Different Structural and Biological Vocal Fold Changes in an In-Vivo Rabbit Model of Phonation. Journal of Voice. 2019 Sep 18.
- Sayce LJ, Powell ME, Kimball EE, Chen PH, Gartling GJ, Rousseau B. Continuous Rate Infusion of Ketamine Hydrochloride and Dexmedetomidine for Maintenance of Anesthesia during Laryngotracheal Surgery in New Zealand White Rabbits (Oryctolagus cuniculus). Journal of the American Association for Laboratory Animal Science. 2020 59(2):176-185
- 6. Hacker ML, Tomaras MC, <u>Sayce L</u>, Ploucher S, Naik A, Turchan M, Harper KA, Hedera P, Charles D. Prevalence of Comorbid Spasticity and Urinary Incontinence in Residents of a Long-Term Care Facility. *Journal of gerontological nursing*. 2020 Oct 1;46(10):35-42.
- 7. Kimball EE, <u>Sayce L</u>. Research in Speech Science and Voice Disorders: The Promise of Modern Genetic Approaches in Improving Clinical Diagnosis and Treatment. *Perspectives of the ASHA Special Interest Groups*. 2020 Nov 23.1-11. doi: 10.1044/2020 PERSP-20-00111.
- 8. Li Z, Wilson A, <u>Sayce L</u>, Avhad A, Rousseau B, Luo H. Numerical and Experimental Investigations on Vocal Fold Approximation in Healthy and Simulated Unilateral Vocal Fold Paralysis. *Applied Sciences*. 2021 Jan;11(4):1817

- 9. Wilson A, Kimball EE, <u>Sayce L</u>, Luo H, Khosla SM, Rousseau B. Medialization Laryngoplasty: A Review for Speech-Language Pathologists. *Journal of Speech, Language, and Hearing Research*. 2021 Feb 17;64(2):481-90.
- 10. Gartling GJ, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Rousseau B. A Comparison of the Localization of Integral Membrane Proteins in Human and Rabbit Vocal Folds. The Laryngoscope. 2021 Apr;131(4):E1265-71.
- 11. Kimball EE, <u>Sayce L</u>, Xu XC, Kruszka CM, Rousseau B. Protein Substrate Alters Cell Physiology in Primary Culture of Vocal Fold Epithelial Cells. Cells Tissues Organs. 2021 Apr 28:1-4.
- 12. Naik AG, Ezana D, Cannard G, Mitchell N, Tomaras M, Meystedt JC, <u>Sayce L</u>, Charles D, Hacker ML. Exploring the presence of multiple abnormal non-motor features in patients with cervical dystonia. Journal of Clinical Neuroscience. 2021 Dec 1;94:315-20.
- 13. Avhad A, Li Z, Wilson A, <u>Sayce L</u>, Chang S, Rousseau B, Luo H. Subject-Specific Computational Fluid-Structure Interaction Modeling of Rabbit Vocal Fold Vibration. Fluids. 2022 Mar 6;7(3):97.
- 14. Gartling G, Nakamura R, <u>Sayce L</u>, Zimmerman Z, Slater A, Wilson A, Bing R, Branski RC, Rousseau B. Acute In Vitro and In Vivo Effects of Dexamethasone in the Vocal Folds: a Pilot Study. The Laryngoscope. 2022 Nov 1.
- 15. <u>Sayce L</u>, Zimmerman Z, Gartling G, Rousseau B, Branski RC. Epithelial response to vocal fold microflap injury in a preclinical model. Laryngoscope. 2023 Feb;133(2):350-356.

## **Accepted Peer-Reviewed Manuscripts**

1. Wilson A, <u>Sayce L</u>, Li Z, Gartling G, Luo H, Rousseau B. (Accepted 03/23/2025). Custom Laser-Cut Silastic® Implants for Type I Thyroplasty in a Preclinical Model. Journal of Otorhinolaryngology, Head and Neck Surgery. DOI: 10.1159/000530419

#### **Invited Articles**

1. Carrott L. Using the Mouse as an Instrument for Ear Research V. Genetics Society News (2014); 69:39–40.

# **Oral Presentations**

- 1. <u>Carrott L</u>, Bowl MR, Aguilar C, West M, Dorning J, Morse S, Hardisty-Hughes R, Ball G, Parker A, Wells S, Marcotti W, Brown SDM. Pitch: A model of sensorineural deafness identifies Neuroplastin as essential for inner hair cell maturation and function. *The Mouse as an Instrument for Ear Research V, Jackson Laboratory, 2012.*
- 2. <u>Carrott L</u>, Bowl MR, Aguilar C, Johnson SL, West M, Morse S, Dorning J, Smart E, Hardisty-Hughes R, Ball G, Parker A, Barnard AR, MacLaren, RE, Wells S, Marcotti W, Brown SDM. Pitch: A model of sensorineural deafness identifies Neuroplastin as essential for inner hair cell maturation and function. *9<sup>th</sup> Molecular Biology of Hearing and Deafness Conference, Stanford Medical School, 2013.*
- 3. <u>Carrott L</u>. Characterisation of pitch: an early onset model of sensorineural deafness. Department of *Biochemistry Student Symposium*, *University of Oxford*, *2013*.
- 4. Carrott L. Characterisation of pitch: an early onset model of sensorineural deafness. MRC Harwell, UK, 2014.
- 5. Powell ME, Kimball EE, <u>Sayce L</u>, Sueyoshi S, Kurita T, Rousseau B. Effects of phonation magnitude-dose on structural, molecular, and functional changes in rabbit vocal folds. The Fall Voice Conference, Washington D.C., 2017.
- 6. Kimball EE, <u>Sayce L</u>, Powell ME, Brandley J, Rousseau B. Damage and Changes to the Vocal Fold Tissue Following Phonation: Effects of Vibratory Closure. *Upper Airway Microbiome: Principles for Mucosal Biology in Health and Disease, University of Wisconsin Madison, WI, 2018.*
- 7. <u>Sayce L</u>, Kimball EE, Powell ME, Sueyoshi S, Gartling GJ, Brandley J, Rousseau B. Molecular Characterization of Glucocorticoid Steroid Treatment on Vocal Fold Physiology. *Upper Airway Microbiome: Principles for Mucosal Biology in Health and Disease, Madison, WI, 2018.*
- 8. Kimball EE, Xu C, Sayce L, Rousseau B. The effect if protein coating on epithelial barrier integrity, cell proliferation, and

- cell physiology in primary culture of vocal fold epithelial cells. *International Conference on Voice Physiology and Biomechanics*, *East Lansing*, *MI*, 2018.
- 9. <u>Sayce L</u>, Kimball EE, Gartling G, Powell M, Sueyoshi S, Schneeberger S, Brandley J, Xu C, Rousseau B. Effect of Methylprednisolone Treatment on Rabbit Vocal Fold Physiology. *International Conference on Voice Physiology and Biomechanics, East Lansing, MI, 2018.*
- 10. Kimball EE, <u>Sayce L</u>, Gartling G, Powell ME, Brandley J, Rousseau B. Effects of Vibratory Contact of Vocal Fold Structure and Physiology. *Fall Voice, Seattle, WA, 2018.*
- 11. <u>Sayce L</u>, Gartling G, Schneeberger S, Kimball EE, Brandley J, Rousseau B. Glucocorticoid Steroid Responses in the Healthy Rabbit Vocal Fold. *Fall Voice 2019, Dallas, TX.*
- 12. **Sayce L**, Kimball EE, Sueyoshi S, Gartling G, Schneeberger Powell M, Brandley J, Rousseau B. Molecular Characterization of Glucocorticoid Steroid Treatment on Vocal Fold Physiology: A Preliminary Study. *Fall Voice, Seattle, WA, 2018.*
- 13. <u>Sayce L</u>, Xu C, Kimball EE, Rousseau B. In Vitro Vocal Fold Epithelial Responses to Chronic Gluocorticoid Steroid Treatment. Accepted for presentation at *Improving Outcomes in Voice Disorders through Clinical and Translational Research in conjunction with the 16th Biennial Phonosurgery Symposium, July 2020, Madison, WI (postponed to July 2021).*
- 14. <u>Sayce L</u>, Kimball EE, Xu XC, Rousseau B. (2020, October 25) In Vitro Vocal Fold Epithelial Responses to Chronic Glucocorticoid Steroid Treatment [Interactive Poster Pod Presentation]. *The Fall Voice Conference, Long Beach, CA, United States.*
- 15. Kimball EE, <u>Sayce L</u>, Powell ME, Rousseau B. (2020, October 25). Laryngeal Changes in Acute Systemic Dehydration in a Rabbit Model [Interactive Poster Pod Presentation]. *The Fall Voice Conference, Long Beach, CA, United States*.
- 16. Gartling GJ, Wilson AW, <u>Sayce L</u>, Kimball EE, Schneeberger S, Zimmerman Z, Rousseau B. Exploring the Acute Effects of Glucocorticord Treatment on Vocal Fold Tissue in a Rabbit Model. *American Laryngological Association's (ALA) Spring Meeting at COSM 2021 Virtual Meeting.*
- 17. Xu XC, <u>Sayce L</u>, Wilson A, Rousseau B. Glucocorticoid Steroid Effects on Proliferation and Barrier Repair in Rabbit Vocal Fold Epithelial Cells. *Accepted for oral presentation at Fall Voice 2021, Miami, FL.*
- 18. Zimmerman Z, Gartling G, <u>Sayce L</u>, Slater A, Branski R, Rousseau B. Long-term characterization of iatrogenic vocal fold wound healing in an in vivo rabbit model. *Accepted for oral presentation at Fall Voice 2021, Miami, FL.*
- 19. Li Z, Gupta M, Avhad A, Luo H, Wilson A, <u>Sayce L</u>, Rousseau B. PhonoSim: a subject-specific modeling tool for presurgical planning of type I thyroplasty procedure. *Accepted for oral presentation at the 75<sup>th</sup> Annual Meeting of the Division of Fluid Dynamics, Indianapolis, IN.*

#### **Poster Presentations**

- 1. <u>Carrott L</u>, Bowl MR, Aguilar C, West M, Dorning J, Morse S, Hardisty-Hughes R, Ball G, Parker A, Wells S, Marcotti W, Brown SDM. Pitch: A model of sensorineural deafness identifies Neuroplastin as essential for inner hair cell maturation and function. *The Mouse as an Instrument for Ear Research V, Jackson Laboratory, 2012.*
- 2. <u>Carrott L</u>, Bowl MR, Aguilar C, West M, Dorning J, Morse S, Hardisty-Hughes R, Ball G, Parker A, Wells S, Marcotti W, Brown SDM. Pitch: A model of sensorineural deafness identifies Neuroplastin as essential for inner hair cell maturation and function. *Department of Biochemistry Student Symposium, University of Oxford, UK, 2012.*
- 3. <u>Carrott L</u>, Bowl MR, Aguilar C, Johnson S, Chessum L, West M, Morse S, Dorning J, Smart E, Hardisty-Hughes, Ball G, Parker A, Barnard A, MacLaren RE, Wells S, Marcotti W, Brown SDM. Absence of Neuroplastin-65 affects synaptogenesis in mouse inner hair cells and causes profound hearing loss. *MRC Harwell Quinquennial Review, Harwell, UK*, 2014.
- 4. Kimball EE, Powell M, <u>Sayce L</u>, Rousseau B. Investigating the Effects of Plate Coating Proteins on Vocal Fold Epithelial Cell Proliferation and Barrier Integrity. *The Fall Voice Conference, Washington D.C., 2017.*
- 5. <u>Sayce L</u>, Powell ME, Garrett CG, Francis DO, Cohen S, Mau T, Rousseau B. Voice Handicap Index as a Measure of Treatment Outcomes for Phonotraumatic Lesions at Three Tertiary Voice Clinics: An Interim Analysis. *The Fall Voice Conference, Washington D.C.*, 2017.

- 6. Powell ME, Kimball EE, <u>Sayce L</u>, Sueyoshi S, Rousseau B. The effect of time dose of raised intensity phonation on functional outcomes. *Combined Otolaryngology Spring Meetings (COSM)*, *National Harbor, Maryland*, 2018.
- 7. Xu C, Kimball EE, <u>Sayce L</u>, Rousseau B. Characterization of acute exposure to glucocorticoid steroids in human and rabbit primary vocal fold epithelial cells. *International Conference on Voice Physiology and Biomechanics, East Lansing, MI*, 2018.
- 8. Sueyoshi S, <u>Sayce L</u>, Kimball EE, Gartling G, Powell M, Xu C, Rousseau B. Expression of Inflammatory Cytokines in Rabbit Vocal Fold with Methylprednisolone Treatment. *International Conference on Voice Physiology and Biomechanics, East Lansing, MI, 2018.*
- 9. Powell M, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Gartling G, Rousseau B. Vocal Fold Vibratory Outcomes Following High Dose of Glucocorticoids. *International Conference on Voice Physiology and Biomechanics, East Lansing, MI*, 2018.
- 10. Gartling G, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Brandley J, Rousseau B. A Preliminary Comparison of the Expression and Localization of Integral Epithelial Proteins in Human and Rabbit Vocal Folds. *International Conference on Voice Physiology and Biomechanics, East Lansing, MI, 2018.*
- 11. Xu C, Kimball EE, <u>Sayce L</u>, Rousseau B. Characterization of acute exposure to glucocorticoid steroids in human and rabbit primary vocal fold epithelial cells. *The Fall Voice Conference 2018, Seattle, WA, United States.*
- 12. Gartling G, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Brandley J, Rousseau B. A Preliminary Comparison of the Expression and Localization of Integral Epithelial Proteins in Human and Rabbit Vocal Folds. *The Fall Voice Conference 2018, Seattle, WA, United States*.
- 13. Kimball EE, <u>Sayce L</u>, Powell ME, Rousseau B. Assessing Structural and Physiologic Laryngeal Changes in Response to Systemic Dehydration in a Rabbit. *The Fall Voice Conference 2019, Dallas, TX, United States.*
- 14. Wilson A, Kimball EE, <u>Sayce L</u>, Rousseau B. Feasibility of Magnetic Nanoparticle Co-culture with Vocal Fold Epithelial Cells. *The Fall Voice Conference 2019, Dallas, TX, United States*
- 15. Gartling G, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Brandley J, Rousseau B. A comparison of the Localization of Integral Membrane Proteins in Human and Rabbit Vocal Folds. *The Fall Voice Conference 2019, Dallas, TX, United States.*
- 16. Gartling G, <u>Sayce L</u>, Kimball EE, Sueyoshi S, Brandley J, Rousseau B. A Comparison of Critical Subcellular Components in Rabbit and Human Vocal Folds. *ASHA 2019, Orlando, FL, United States.*
- 17. <u>Sayce L</u>, Kimball EE, Chen P, Wilson AC, Powell ME, Rousseau B. Optimizing anesthesia for basic voice research in a rabbit model. *ASHA 2019, Orlando, FL, United States*.
- 18. Wilson A, Kimball EE, <u>Sayce L</u>, Rousseau B. The Magnetic Voice Project (MVP): Bringing Nanoscience to Voice Science. *ASHA 2019, Orlando, FL, United States.*
- 19. Wilson A, Gartling G, <u>Sayce L</u>, Rousseau B. Low-Cost Custom Laser-Cut Silastic Implants for Type I Thyroplasty in a Rabbit Model. *Accepted as a Technical Research Session at ASHA 2020 (cancelled)*.
- 20. Gartling G, <u>Sayce L</u>, Kimball EE, Wilson A, Rousseau B. (2020, October 24). Investigating the adverse effects of glucocorticoid treatment in a rabbit model [Poster presentation]. *The Fall Voice Conference 2020, Long Beach, CA, United States.*
- 21. Wilson, A., Gartling, G., <u>Sayce, L.</u>, Rousseau, B. (2020, October 24). Low-cost custom laser-cut Silastic implants for type I thyroplasty in a rabbit model [Poster presentation]. *The Fall Voice Conference 2020, Long Beach, CA, United States.*
- 22. <u>Sayce L</u>, Wilson A, Gartling G, Rousseau B. Innovations in Modeling of Voice Disorders: Development of Surgical Approaches to Advance Preclinical Laryngology Research. *Accepted for presentation as a poster at Fall Voice 2021, Miami, FL.*
- 23. Wilson A, <u>Sayce L</u>, Li Z, Ahvad A, Luo H, Rousseau B. Comparison of two surgical methods to simulate unilateral vocal fold paralysis in an ex vivo rabbit model. *Accepted for presentation as a poster at Fall Voice 2021, Miami, FL.*
- 24. Gartling G, <u>Sayce L</u>, Zimmerman Z, Slater A, Wilson A, Branski R, Rousseau B. Investigating the Occurrence of Vocal Fold Atrophy Following Intracordal Glucocorticoid Injection in a Rabbit Model. *Accepted for presentation as a poster at Fall Voice 2021, Miami, FL.*

### **Research Mentorship**

PhD students:

2020 - present Elizabeth (Lizzie) Hary, MS, CCC-SLP

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor

2018 – present Azure Wilson, MA, CCC-SLP

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor

2017 – 2021 Gary Gartling, PhD, CCC-SLP

University of Pittsburgh, Communication Sciences and Disorders, Co-Mentor

2017 – 2019 Emily Kimball, PhD, CCC-SLP

Vanderbilt University, Department of Hearing and Speech Sciences, Co-Mentor

Master's students:

2011 – 2012 Melissa (nee West) Cassini, MBiochem

University of Oxford, Department of Biochemistry, Co-Mentor

Undergraduate students:

2023 – present Gianna Benni

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2022 – present Chloe Benincasa

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2022 – present Emma Cavotta

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2022 – present Jacob Mercer

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2022- present Jasmine Cardino

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2022 – 2023 Caroline Henning

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2021 – 2023 Teresa (Tessa) King

University of Pittsburgh, Communication Sciences and Disorders, Primary Mentor for

Undergraduate Research Volunteer

2018 – 2020 Chase Kruszka

University of Pittsburgh, Biological Sciences, Primary Mentor for Undergraduate Research

Volunteer

2016 – 2017 Aaditi Naik

Vanderbilt University, Department of Neurology, Co-Mentor for Undergraduate Research Volunteer

High School students:

2012 Elizabeth (Lizzie) Smart

MRC Harwell Summer Student Program, Primary Mentor

#### **Teaching Experience**

University of Pittsburgh:

CSD 1023 (3 credits) Anatomy and Physiology of Speech (Fall 2022)
CSD 1027 (1 credit) Anatomy and Physiology of Speech Lab (Fall 2022)
CSD 3971 (3 credits) Research Practicum for PhD students (Spring 2023)

CSD 3902 (3 credits) Directed Study (Fall 2018, Spring and Fall 2019, Spring 2022)

BIOSC 1903 (3 units) Undergraduate Research (Fall 2020) – 10 mentored research hours per week

CSD 2520 (3 credits) Mentored Clinical Internship (Summer 2019)

Oxford Summer School:

3 credit course Natural Sciences (Summer 2015) – high school-level students

# **Professional Memberships**

2019 – 2020	ASHA Special Interest Group 3 (Voice)
2018 - 2020	ASHA
2010 – 2016	The Genetics Society

# **Professional Service**

2023 – present 2022 – present 2021 – present 2020 – present	Ad-Hoc Reviewer, <i>The Laryngoscope</i> Institutional Animal Care and Use Committee, University of Pittsburgh SHRS Space Committee, School of Health and Rehabilitation Sciences, University of Pittsburgh Basic Science Advisory Committee (3-year appointment), University of Pittsburgh
2020 – present 2020 – present 2020 – present	Equity, Justice and Inclusion Working Group, Department of Communication Science and Disorders, University of Pittsburgh Ad-Hoc Reviewer, <i>Scientific Reports</i>
2020 – present 2020 – present 2020 – present 2018 – present 2018 – present	Ad-Hoc Reviewer, <i>Scientific Reports</i> Ad-Hoc Reviewer, <i>Plos One</i> Ad-Hoc Reviewer, <i>Analyst</i> Communication Science and Disorders PhD Admissions Committee, University of Pittsburgh MA SLP Admissions Committee, University of Pittsburgh

#### Referees

Dr Bernard Rousseau

Dean of the Doisy College of Health Sciences

Saint Louis University

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Dr David Charles

Professor and Vice-Chair

Department of Neurology

Medical Director

Vanderbilt Telehealth

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1161 21st Ave South

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Dr Mike Bowl
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