

## **Teresa Pitts, Ph.D. CCC/SLP**

Laboratory of Airway Protection  
Kentucky Spinal Cord Injury Research Center  
Department of Neurological Surgery  
College of Medicine  
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### **EDUCATION/ TRAINING**

2003 B.A. in Communicative Disorders | University of Central Florida | Orlando, FL  
2006 M.A. in Communicative Disorders | University of Central Florida | Orlando, FL  
2008-2010 Pre-doctoral Fellow in Neurology | Malcom Randall Veterans Hospital | Gainesville, FL  
2010 Ph.D. in Communication Sciences and Disorders | University of Florida | Gainesville, FL

### **ACADEMIC APPOINTMENTS**

2010-2012 T-32 NIH-NIDCD Post-doctoral Fellow  
Department of Neurology  
College of Medicine  
University of Florida  
Gainesville, FL

2010-2013 Post-doctoral Fellow  
Department of Physiological Sciences  
College of Veterinary Medicine  
University of Florida  
Gainesville, FL

2013-2014 Assistant Research Professor  
Department of Physiological Sciences  
College of Veterinary Medicine  
University of Florida  
Gainesville, FL

2013-2015 Chief Medical Officer  
Sensory Integrated Solutions, LLC  
Gainesville, FL

2015-2020 Assistant Professor  
Laboratory of Airway Protection

Department of Neurological Surgery  
Kentucky Spinal Cord Injury Research Center  
School of Medicine  
University of Louisville  
Louisville, KY

2015- Affiliate College of Medicine Appointments:  
1. Department of Anatomical Sciences and Neurobiology  
2. Department of Physiology  
3. Department of Otolaryngology Head and Neck Surgery

2016- Director of Research  
Division of Communicative Disorders  
Department of Otolaryngology Head and Neck Surgery  
School of Medicine  
University of Louisville  
Louisville, KY

2021- Associate Professor  
Laboratory of Airway Protection  
Department of Neurological Surgery  
Kentucky Spinal Cord Injury Research Center  
School of Medicine  
University of Louisville  
Louisville, KY

2021- Endowed Chair  
Department of Neurological Surgery  
School of Medicine  
University of Louisville

2022- Director of Diversity Equity & Inclusion  
Kentucky Spinal Cord Injury Research Center &  
Department of Neurological Surgery  
School of Medicine  
University of Louisville

#### **CONSULTING- CLINICAL TRIAL DESIGN**

2015- Audentes Therapeutics, Inc. (Astelles Gene Therapies)  
2020- Dynacure  
2022- Seelos Therapeutics, Inc

#### **OTHER POSITIONS & EMPLOYMENT**

2005-2008 Speech-Language Pathologist  
Voice Care Center, Ear Nose Throat Plastic Surgery Associates  
Orlando, FL  
2008-2010 Veterans Administration Pre-Doctoral Fellow  
Speech-Language Pathology

Department of Neurology  
Malcom Randall Veterans Hospital  
Gainesville, FL

2009-2011 PRN Speech-Language Pathologist  
Department of Communication Sciences and Disorders  
Shand's Hospital  
University of Florida  
Gainesville, FL

### **CERTIFICATES**

2021-2022 Certificate of Specialization in Leadership and Management | Harvard Business School Online

- Certificate in Leadership Principles- 2021
- Certificate in Management Essentials- 2021
- Certificate in Negotiation Mastery- 2022

2022 Diversity and Inclusion Certificate | Cornell University

- ILRDI001 Improving Engagement
- ILRDI002 Counteracting Unconscious Bias
- ILRDI003 Diversity and Inclusion at Work
- ILRDI004 Fostering an Inclusive Climate

### **LICENSURE**

2005-2014 Licensure in Speech-Language Pathology | Florida (SA 9413)  
2007- CCC-SLP American Speech and Hearing Association (12097201)  
2015- Licensure in Speech-Language Pathology | Kentucky (SLPLPA00217492; 162966)

### **PROFESSIONAL MEMBERSHIPS & ACTIVITIES**

2007- American Speech-Language Hearing Association (12097201)  
2013- American Physiological Society (128869)  
2013-2018 NIH-IMAG Multiscale Modeling Consortium  
2014- Society for Neuroscience (210543498)  
2014-2015 American Heart Association (198017016)  
2018- Kentucky Speech-Language Hearing Association (41399)  
2020- Dysphagia Research Society (32014661)

### **HONORS & AWARDS**

2009 New Investigator Grant | Dysphagia Research Society & the American Speech and Hearing Association  
2011 Outstanding Young Alumnus | Department of Speech-Language and Hearing Science in the College of Public Health and Health Professions- University of Florida  
2013 Outstanding Alumni Award | Department of Communication Sciences and Disorders- University of Central Florida  
2014 Alumni Representative and Speaker | University of Central Florida Fall Commencement Ceremony

- 2017 New Investigator Award | American Physiological Society- Respiratory Section  
 2017 1<sup>st</sup> Award for Continuing Education (ACE) | American Speech and Hearing Foundation (ASHA)  
 2019 Pan-American Congress Travel Award | American Physiological Society  
 2020 Giles F. Filley Memorial Award for Excellence in Respiratory Physiology and Medicine | American Physiological Society

## ACADEMIC SERVICE

### Granting Agencies Reviewer

- 2015 American Speech and Hearing Foundation | Academic Affairs and Research Education Award and Mentoring Program  
 2017 American Speech and Hearing Foundation | Students Preparing for Academic Research Careers (SPARC) Award and Mentoring Program  
 2017 American Speech and Hearing Foundation | Graduate Student Scholarship Program  
 2018-2021 American Speech and Hearing Foundation | GRRT  
 2018 Neurological Foundation of New Zealand  
 2019 Veterans Affairs | Sensory Systems and Communicative Disorders (RRD3)  
 2019 National Institutes of Health | Small Business Application in Respiratory Sciences (CVRS A11)  
 2020 Veterans Affairs | Sensory Systems and Communicative Disorders (RRD3)  
 2020 National Institutes of Health | NCMRR Early Career Research Award R03 (ZHD1 DSR G)

### University of Louisville Service

- 2020- Diversity, Equity and Inclusion Committee | Department of Neurological Surgery & KSCIRC  
 2020- MD/PhD Advisory Committee  
 2020 Faculty search committee | Division of Communicative Disorders

### National Service

- 2017 Session organizer and co-chair for “Modeling across systems” at the 22<sup>nd</sup> Annual Kentucky Spinal Cord and Head Injury Trust Symposium  
 2018 Organized the inaugural *Ohio River Control of Breathing Symposium* which brought together faculty, post-docs and students from the University of Kentucky the University of Cincinnati, and the University of Louisville.  
 2019-2020 Mentoring Academic-Research Careers (MARC) program *American Speech and Hearing Association*  
 2019-2022 Member of the Career Opportunities in Physiology Committee for the *American Physiological Society*  
 2020 Poster judge for students and professionals at the *Kentucky Speech and Hearing Association Conference*  
 2020-2022 Liaison to the Women in Physiology Committee for the *American Physiological Society*  
 2022 Poster judge for students and professionals at the *Kentucky Speech and Hearing Association Conference*

2022 Session organizer and co-chair for “Rhythm: Identification and function of interneurons in critical motor systems” at the 27<sup>th</sup> Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium

#### International Service

2018 Session organizer and co-chair for “Neuroplasticity of Airway Reflexes” at *Experimental Biology*

2018 Member of the Committee for Trainee Poster Competition for the Respiratory Section at *Experimental Biology*

2019 Co-chair and organizer the Undergraduate Orientation at *Experimental Biology*

2021 Dependent Support Travel Award Review Committee for *Experimental Biology*

2022 Session organizer and chair for “The dynamics of aerodigestion: chewing, swallow and breathing” at *Experimental Biology*

2022 Session co-chair “Navigating career obstacles: handling rejection” at *Experimental Biology*

#### **GRANTS AND CONTRACTS**

<b>Grant</b>	<b>Title</b>
<b>1. 2018-2023</b> R01 NS110169 -Pitts (PI)	<u>Regulation of swallow and the effects of high cervical spinal cord injury</u> The long-term goal is to provide pre-clinical information on use of serotonin mediators in the treatment of dysphagia following cervical spinal cord injury
<b>2. 2020-2024</b> R01 HL155721 -Bolser & Morris (Multi-PI; Pitts Co-I)	<u>Influence of opioids on the brainstem respiratory network</u> The long-term goal is the understand the central regulation of the breathing, alterations with opioids, and creation of a predictive computational model.
<b>3. 2020-2024</b> R01 HL163008 -Bolser, Pitts, Morris (Multi-PI)	<u>Central and peripheral regulation of laryngeal adduction</u> The long-term goal is the understand the central regulation of the laryngeal adductor reflex, alterations in the reflex with opioids, and creation of a predictive computational model.
<b>4. 2020-2023</b> R21 HD110951 -Pitts & Mellen (Multi-PI)	<u>Delineating impacts of gestational opioid exposure on central swallow networks</u> Score 6 <sup>th</sup> percentile

#### **Grants- Submitted/Resubmitted**

1. **2022-2027**  
 R01 NS131607  
 -Pitts (PI) Serotonin receptor activation as therapeutic intervention for dysphagia following spinal cord injury

#### **Grants- Completed**

1. **2018-2020** Effects of cervical spinal cord injury on swallow  
Craig H. Neilsen  
Foundation CNF546714  
Pitts (PI)
  2. **2016-2020** Modeling the role of the NTS in the neurogenesis of airway defensive behaviors  
R01 HL131716  
Bolser & Morris (MPI;  
Pitts, Co-I)
  3. **2016-2020** Functional mapping of peripheral and central circuits for airway protection and breathing  
OT2 TR001983 &  
TR023854  
-Bolser (PI; Pitts, Co-I)
  5. **2015-2018** Regulation of airway protective behaviors  
R00 HL111215  
-Pitts (PI)
  6. **2016-2018** Diaphragm pacing and rehabilitation in Pompé disease  
R21 HD090752  
-Smith (PI;  
Pitts, Consultant)
  7. **2016-2017** Characterization of radiation induced pharyngeal mucosa fibroses after head and neck cancer.  
ASHF New Investigators  
Research Grant  
-King (PI; Pitts, Mentor)
  8. **2013-2015** Regulation of airway protective behaviors  
K99 HL111215  
-Pitts (PI)
  9. **2013-2014** An External Device for Rehabilitation of Airway Protective Behaviors  
UF Opportunity Fund  
-Bolser (PI; Pitts, Co-I)
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## PATENTS

1. W Dixon, DC Bolser, TE **Pitts**, SC McCoy. Protecting Airways, US Provisional Patent Application No. 61/695,515, Aug. 31, 2012.
2. TE **Pitts**, W Dixon, DC Bolser, SC McCoy. Controlling coughing and swallowing, US Provisional Patent Application No. 61/843,084, July 5, 2013.

## EDUCATIONAL ACTIVITIES

### Primary Research Mentoring

#### ***-Post-Doctoral Fellows***

<i>Name</i>	<i>Dates</i>	<i>Subsequent Position</i>
1. Suzanne King, PhD	2015-2016	Tenure-Track Faculty
2. Mitchell D. Reed, PhD	2017-2019	Science officer with the US Navy
3. M. Nicholas Musselwhite, PhD	2020-2022	

#### ***-Doctoral Students***

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. Alyssa Huff, PhD	2015-2019	Physiology
2. Kellyanna Schneider, MS	2020-2022	Translational Neuroscience
3. Michael Frazure, MS	2020-	Physiology

***-Masters Students***

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. M. Katie McClure, MS	2017-2018	Speech-Language Pathology
2. Allison English, MS	2018-2019	Speech-Language Pathology
3. Michael Brennan	2022-	Speech-Language Pathology

***-Undergraduate Students***

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. Daniel Castillo, MD	2009-2011	Honors Thesis
2. Daniel Spearman, MD	2009-2013	Honors Thesis
3. Marianna Rodriguez	2022-	Louis Stokes Alliances for Minority Participation (LSAMP)

***-International visiting trainees***

<i>Name</i>	<i>Dates</i>	<i>Country</i>
1. In Morimoto, MS	2022-	Japan

***-Physicians/ Medical Students***

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. Albright Gayagoy, MD	2012-2015	Fellow
2. Jennifer Thomas, MD	2015-2017	Resident
3. Mason English, MD	2017	Summer Research Scholar
4. Alyssa Brown, MD/PhD	2016-2022	Research Distinction
5. Nathan Fielder	2022-	Summer Research Scholar

**Committee Research Mentoring*****-Doctoral Students***

<i>Name</i>	<i>Dates</i>	<i>Primary Mentor &amp; School</i>
1. Natasha Lorraine	2021-	Charles Hubscher PhD; University of Louisville
2. Alyssa Brown, MD/PhD	2018-2022	Gary Sieck PhD; Mayo Clinic
3. Kim Cheffer, MS	2015-2018	Dena Howland PhD; University of Louisville
4. M. Nick Musselwhite, PhD	2014-2020	Donald Bolser PhD; University of Florida
5. Stephanie Watts, PhD	2014-2017	David Eddins PhD; University of South Florida

***-Masters Students***

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. Lydia Doggett, MS	2016-2017	Speech-Language Pathology
2. Allison Brown, MS	2016-2017	Speech-Language Pathology
3. McKenzie Sexton, MS	2017-2018	Speech-Language Pathology
4. Kaitlin Juergensen, MS	2017-2018	Speech-Language Pathology

5. Michael Frazure, MS	2017-2018	Speech-Language Pathology
6. Bradley Kimbel, MS	2017-2018	Speech-Language Pathology
7. Britney Fletcher, MS	2018-2019	Speech-Language Pathology
8. Emily Schantz, MS	2018-2019	Speech-Language Pathology
9. Megan Sherehiy, MS	2018-2019	Speech-Language Pathology
10. Renee Brown, MS	2019-2020	Speech-Language Pathology
11. Emma Fegie, MS	2019-2020	Speech-Language Pathology
12. Amanda Matsumoto, MS	2019-2020	Speech-Language Pathology
13. Samantha Hahn, MS	2021-2022	Speech-Language Pathology

**- Physicians**

<i>Name</i>	<i>Dates</i>	<i>Program</i>
1. Prithish Mondal, MD	2012-2015	Fellow

Classroom Teaching**-Full Courses**Division of Communicative Disorders, University of Louisville

1. CDMS 600 Research Methods Fall 2015-

Department of Communication Sciences and Disorders, University of Florida

2. SPA 3101 Speech Anatomy & Physiology Fall 2007
3. SPA 4050 Clinical Observation Spring & Fall 2009

**-Lectures**Department of Communication Sciences and Disorders, University of Florida

1. SPA 4250 Introduction to Speech Disorders Spring 2007 - 2008
2. SPA 6581 Dysphagia Spring 2008

Department of Physiological Sciences, University of Florida

1. VEM 5110E Animal Systems I-Neuroscience: Auditory and Vestibular Fall 2010-2013

Department of Health and Exercise Science, Pfeiffer University

1. Women in Science Fall 2017

Department of Anatomical Sciences and Neurobiology, University of Louisville

1. ASNB 606-01 Anatomy Seminar- Chalk Talk Lecture Fall 2015  
Interdisciplinary Program in Translational Neuroscience (IPTN)
2. NCSI 600 Translational Neurosciences Spring 2016; Fall 2018  
Unit 6 Respiratory Disease: Airways, cough and swallow

**EDITORIAL WORK**Editorial Board Member

2018-2020 American Physiological Society Life Science Teaching Resource Community  
2021- Journal of Speech, Language and Hearing Research- Speech

2022- Associate Editor | Frontiers- Respiratory Physiology and Pathophysiology

Ad Hoc Reviewer for Scientific Journals

- 2010- Frontiers in Respiratory Physiology
- 2011- Dysphagia
- 2011- Journal of Rehabilitation Research and Development
- 2012- Laryngoscope
- 2013- Journal of Sport and Human Performance
- 2013- Medical Biological Engineering and Computing
- 2014- Journal of Applied Physiology
- 2014- Chest
- 2014- International Journal of Language and Communication Disorders
- 2014- IEEE Journal of Biomedical and Health Informatics
- 2015- Movement Disorders Clinical Practice
- 2015- Respiratory Physiology and Neurobiology
- 2015- Odontology
- 2016- American Journal of Speech-Language Pathology
- 2016- International Journal of Neurology and Neurotherapy
- 2016- Journal of Neurotrauma
- 2016- Journal of Pharmacology and Experimental Therapeutics
- 2016- Physiologic Reports
- 2017- Expert Opinion on Pharmacotherapy
- 2017- PLoS one
- 2017- Physiology and Behavior
- 2018- Annals of Otolaryngology, Rhinology, Laryngology
- 2018- Sensors
- 2018- Systems Neuroscience and Behavior
- 2019- Geriatrics
- 2020- Neurocase
- 2020- Parkinsonism and Related Disorders
- 2020- Applied Sciences
- 2020- Journal of Neurophysiology
- 2020- Therapeutic Advances in Respiratory Disease
- 2020- American Journal of Physiology- Gastrointestinal and Liver Physiology
- 2020- Journal of Speech Language Hearing Research
- 2020- Lung
- 2021- Audiology Research
- 2021- Scientific Reports

**PUBLICATIONS**

\*Denotes corresponding author

‡Denotes mentored manuscript: student/postdoc/fellow/resident

°Denotes mentored faculty

ˆDenotes invited review/editorial

-PMID or DOI is hyperlinked to PubMed or manuscript.

-Publishing names: TE Pitts and T Pitts.

Peer-Reviewed Manuscripts

1. \***Pitts** T, Bolser D, Rosenbek J, Troche M, Sapienza C. (2008) Voluntary Cough Production and Swallow Dysfunction in Parkinson's disease. *Dysphagia* 23(3): 297-301. [PMID: 18483823](#)
2. Wheeler Hegland KM, Huber JE, **Pitts** T, Sapienza CM. (2009) Lung Volume during Swallowing: Single Bolus Swallows in Healthy Young Adults. *Journal of Speech, Language and Hearing Research* 52(1): 178-87. [PMID: 18723599](#)
3. \***Pitts** T, Bolser D, Rosenbek J, Troche M, Okun, M, Sapienza C. (2009) Impact of Expiratory Muscle Strength Training on Voluntary Cough and Swallow Function in Parkinson's disease. *Chest* 135(5): 1301-1308. [PMID: 19029430](#)
4. †\***Pitts** T, Wheeler-Hegland K, Davenport P. (2010) Event-related potentials and the swallow system. Perspectives on Swallowing and Swallowing Disorders. *Dysphagia* 19: 21-25. [DOI: 10.1044/sasd19.1.21](#)
5. Wheeler-Hegland K, **Pitts** T, Davenport P. (2010) Cortical Gating of oropharyngeal sensory stimuli. *Frontiers in Respiratory Physiology* 1: 167. [PMID: 21452760](#)
6. Troche M, Okun MS, Rosenbek J, Musson N, Fernandez H, Rodriguez R, Romrell J, **Pitts** T, Wheeler-Hegland K, Sapienza C. (2010) Aspiration and swallowing in Parkinson's disease and rehabilitation with EMST: a randomized trial. *Neurology* 75: 1912-1919. [PMID: 21098406](#)
7. \***Pitts** T, Troche M, Carnaby-Mann G, Rosenbek J, Okun M, Sapienza C. (2010) Using voluntary cough to detect penetration and aspiration during oropharyngeal swallowing in Parkinson's disease. *Chest* 138(6): 1426-1431. [PMID: 20705802](#)
8. Wheeler-Hegland K, Huber J, **Pitts** T, Davenport PW, Sapienza C. (2010) Lung Volume Measured during Sequential Swallowing in Healthy Young Adults. *Journal of Speech, Language and Hearing Research* 54: 777-786. [PMID: 20966381](#)
9. †\***Pitts** T, Sapienza C. (2010) Laryngeal contribution to cough. *Perspectives on Voice and Voice Disorders* 20: 90-95. [DOI: 10.1044/vvd20.3.90](#)
10. Sapienza C, Troche M, **Pitts** T, Davenport P, (2011) Respiratory strength training: concept and intervention outcomes. *American Journal of Speech-Language and Hearing Research* 32: 21-30. [PMID: 21491356](#)
11. Wheeler-Hegland K, **Pitts** T, Bolser D, Davenport P. (2011) Urge to cough with voluntary suppression following mechanical pharyngeal stimulation. *Bratislava Medical Journal* 112(3): 109-114. [PMID: 21452760](#)
12. Widdicombe J, Tatar M, Fontana G, Hanacek J, Davenport P, Lavorini F, Bolser D, other participants (Hull D, Chung F, Kollarik M, Udem B, Canning B, Millquist E, Dicipinigaitis P, Ebihara S, **Pitts** T) (2011) Workshop tuning the 'cough center'. *Pulmonary Pharmacology and Therapeutics* 24(3): 344-52. [PMID: 21215322](#)
13. Bolser DC, **Pitts** TE, Morris K. (2011) The use of multiscale systems biology approaches to facilitate understanding of complex control systems for airway protection. *Current Opinion Pharmacology* 11(3): 272-7. [PMID: 21724463](#)
14. †\***Pitts** T, Bolser D. (2011) Anatomy and Physiology of Cough. *Perspectives on Swallowing and Swallowing Disorders- Dysphagia* 20: 3-8. [DOI: 10.1044/sasd20.1.3](#)
15. Poliacek I, Morris M, Lindsey B, Segers L, Rose M, Corrie L, Wang C, **Pitts** TE, Davenport D, Bolser D. (2011) Blood pressure changes alter tracheobronchial cough: computational model of the respiratory-cough network and in vivo experiments in anesthetized cats. *Journal of Applied Physiology* 111(3): 861-73. [PMID: 21719729](#)

16. Wheeler-Hegland K, **Pitts** T, and Davenport PW. (2011) Peak Morphology and Scalp Topography of the Pharyngeal Sensory-Evoked Potential. *Dysphagia* 26: 287-294 . [PMID: 20890713](#)
17. \***Pitts** T, Morris KF, Lindsey B, Davenport P, Poliacek I, Bolser DC. (2011) Co-ordination of cough and swallow in vivo and in silico. *Experimental Physiology* 97(4): 469-473. [PMID: 22198014](#)
18. Segers L, Nuding S, Vovk A, **Pitts** T, Baekey D, O'Connor R, Morris K, Lindsey B, Shannon R, and Bolser D. (2012) Discharge identity of medullary inspiratory neurons is altered during repetitive fictive cough. *Frontiers in Physiology. Computational Physiology and Medicine* 3: 223. [PMID: 22754536](#)
19. O'Connor R, Segers LS, Morris KF, Nuding SC, **Pitts** T, Bolser DC, Lindsey BG. (2012) A joint computational respiratory neural network-biomechanical model for breathing and airway defensive behaviors. *Frontiers in Physiology. Computational Physiology and Medicine* 3: 264. [PMID: 22934020](#)
20. \***Pitts** T, Rose M, Mortensen A, Poliacek I, Sapienza C, Lindsey BG, Morris KF, Davenport PW, Bolser DC. (2013) Coordination of cough and swallow: A meta-behavioral response to aspiration. *Respiratory Physiology and Neurobiology* 189: 543-551. [PMID: 23998999](#)
21. Bolser C, Gestreau C, Morris K, Davenport T, **Pitts** T. (2013) Central neural circuits for coordination of swallowing, breathing and coughing: predictions from computational modeling and simulation. *Otolaryngologic Clinics of North America, Dysphagia: Diagnosis and Management* 46(6): 957-964. [PMID: 24262953](#)
22. ¥\*Castillo D, **Pitts** T. (2013) Influence of baclofen on laryngeal and spinal motor drive during cough in the anesthetized cat. *Laryngoscope* 123(12): 3088-3092. [PMID: 23670824](#)
23. Hoffman-Ruddy B, **Pitts** T, Lehman J, Spector B, Sapienza C. (2013) Improved voluntary cough immediately following office based vocal fold medialization injections. *Laryngoscope* 124(7): 1645-1647. [PMID: 24258681](#)
24. \***Pitts** T. (2014) Airway protective mechanisms. *Lung* 192: 27-31. [PMID: 24297325](#)
25. Silverman E, Carnaby-Mann G, **Pitts** T, Davenport P, Okun M, Sapienza C. (2014) Concordance and discriminatory power of cough measurement devices for individuals with Parkinson's disease. *Chest* 145(5): 1089-1096. [PMID: 24264124](#)
26. Zubcevic J, Santisteban M, **Pitts** T, Baekey D, Perez P, Bolser D, Febo M, Raizada M. (2014) Functional neural-bone marrow pathways: implications in hypertension and cardiovascular disease. *Hypertension* 63(6): e129-e139. [PMID: 24688127](#)
27. ¥\*Spearman D, Poliacek I, Rose M, Bolser D, **Pitts** T. (2014) Variability of the pharyngeal phase of swallow in the cat. *PLoS one* 9(8): e106121. [PMID: 25171095](#)
28. \***Pitts** T, Rose MJ, Poliacek I, Condrey J, Davenport PW, Bolser DC. (2015) Effect of laparotomy on the swallow-breathing relationship in the cat. *Lung* 193(1): 129-133. [PMID: 25331536](#)
29. Poliacek I, Rose MJ, **Pitts** TE, Mortensen A, Corrie LW, Davenport PW, Bolser DC. (2015) Central administration of nicotine suppresses tracheobronchial cough in anesthetized cats. *Journal of Applied Physiology* 118(3): 265-72. [PMID: 25477349](#)
30. \***Pitts** T, Gaygoy AG, Rose MJ, Poliacek I, Condrey JA, Musselwhite MN, Shen TY, Davenport PW, and Bolser DC. (2015) Suppression of abdominal motor activity during swallowing in cats and humans. *PLoS one* 10(5): e0128245. [PMID: 26020240](#)

31. <sup>o</sup>Mattingly R, Mukkada V, Smith A, **Pitts T**. (2015) Optimizing an aversion feeding therapy protocol for a child with Food Protein-Induced Enterocolitis Syndrome (FPIES). *Journal of Pulmonary and Respiratory Medicine* 5:4. [PMID: 26779390](#)
32. Bolser D, **Pitts T**, Davenport PW, Morris KF. (2015) Role of the dorsal medulla in the neurogenesis of airway protection. *Journal of Pulmonary Pharmacology and Therapeutics* 35, 105-110. [PMID: 26549786](#)
33. <sup>¥</sup>Mondal P, Abu-Hasan M, Saha M, **Pitts T**, Rose M, Bolser D, Davenport P. (2016) Effect of Laparotomy on Respiratory Muscle Activation Pattern. *Physiological Reports* 4(1), e12668 [PMID: 26733250](#)
34. <sup>¥\*</sup>King SN, Dunlap NE, Tennant PA, **Pitts T**. (2016) Pathophysiology of radiation-induced dysphagia in head and neck cancer. *Dysphagia* 31(3), 339-351. [PMID: 27098922](#)
35. **\*Pitts T**, Morris KF, Segers LS, Poliacek I, Rose MJ, Lindsey BG, Davenport PW, Howland DR, Bolser DC. (2016) Feed-forward and reciprocal inhibition for gain and phase timing control in a computational model of repetitive cough. *Journal of Applied Physiology* 121(1): 268-78. [PMID: 27283917](#)
36. **\*Pitts T**, Wheeler-Hegland K, Sapienza CM, Bolser DC, Davenport PW. (2016) Alterations in the Oropharyngeal Sensory Evoked Potentials (PSEP) with Age and Parkinson's disease. *Journal of Respiratory Physiology and Neurobiology* 229: 11-6. [PMID: 27090350](#)
37. Poliacek I, Simera M, Veternik M, Kotmanova Z, **Pitts T**, Hanacek J, Plevkova J, Machac P, Visnovcova N, Misek J, Jakus J. (2016) The course of lung inflation alters the central pattern of tracheobronchial cough in cat – the evidence for volume feedback during cough. *Journal of Respiratory Physiology and Neurobiology* 229: 59-64. [PMID: 27125979](#)
38. Ovechkin AV, Sayenko DG, Ovechkin EN, Aslan CS, **Pitts T**, Folz RJ. (2016) Respiratory motor training and neuromuscular plasticity in patients with chronic obstructive pulmonary disease: a pilot study. *Journal of Respiratory Physiology and Neurobiology* 229: 59-64. [PMID: 27137413](#)
39. Poliacek I, Plevkova J, **Pitts T**, Kotmanova Z, Jakus J, Simera M. (2016) Cough modulation by upper airway stimuli in cat- potential clinical application? *Open Journal of Molecular and Integrative Physiology* 6: 35-43. [PMID: 28944100](#)
40. Poliacek I, **Pitts T**, Rose M, Davenport P, Simera M, Veternik M, Kotmanova Z, Bolser D. (2017) Microinjection of kynurenic acid in the rostral nucleus of the tractus solitarius disrupts spatiotemporal aspects of mechanically induced tracheobronchial cough. *Journal of Neurophysiology* 257, 100-106. [PMID: 28250153](#)
41. <sup>o</sup>Smith AF, Mattingly R, **Pitts T**. (2016) Child maltreatment: What attitudinal factors drive preservice speech-language pathologists to report? *Journal of Speech Pathology and Therapy* 1(3): 1-9. [DOI: 10.1016/j.ijnurstu.2009.05.015](#)
42. <sup>i¥\*</sup>Huff A, Brown A, Smith BK, **Pitts T**. (2017) Mechanisms for successful rehabilitation of cough in Parkinson's disease using Expiratory Muscle Strength Training. *Perspectives of the ASHA Special Interest Groups* 2(SIG 13): 103-110. [DOI: 10.1044/persp2.SIG13.93](#)
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48. °Juergensen K, Mattingly R, Pitts T, Smith AF. (2018) Autism spectrum disorder: investigating predictive diagnostic relationships in children three years-of-age and younger. *Early Years: a International Research Journal*. [DOI: 10.1080/09575146.2018.1490891](#)
49. °Frazure M, Mattingly R, Pitts T, Smith AF. (2018) Traumatic brain injury: investigating misconceptions among graduate students in physical therapy, occupational therapy, and speech-language pathology. *Physiotherapy & Physical Rehabilitation* 3:3. [DOI: 10.4172/2573-0312.1000160](#)
50. Pitts T, Bordelon R, Huff A, Byrne BJ, Smith BK. (2019) Cough effectiveness and pulmonary hygiene practices in patients with Pompe disease. *Lung* 197(1):1-8. [PMID: 30361764](#)
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53. ¥\*Huff A, Day TA, English M, Reed MD, Zouboules S, Saran G, Leacy J, Mann C, Peltonen JDB, O'Halloran KD, Pitts T (2019). The coordination of swallow and breathing during incremental ascent to altitude. *Journal of Respiratory Physiology and Neurobiology* 265: 121-126. [PMID: 29920337](#)
54. ¥King SN, Fletcher B, Kimbell B, Bonomo N, Pitts T. (2020) Adaptations to Oral and pharyngeal swallowing function induced by injury to mylohyoid muscle. *Dysphagia*. [PMID: 31897608](#)
55. °\*King SN, Shen TY, Musselwhite MN, Huff A, Reed M, Poliacek I, Howland DR, Dixon D, Morris KF, Bolser DC, Iceman KE, Pitts T. (2020) Swallow motor pattern is modulated by fixed or stochastic alterations in afferent feedback. *Frontiers Human Neuroscience Special edition Orofacial functions: from Neural Mechanisms to Rehabilitation* 14:112. [PMID: 32327986](#)
56. ¥\*Huff A, Reed MD, Iceman K, Howland DR, Pitts T. (2020) Sex specific vagal and spinal modulation of breathing with chest compression. *PLoS one* 15(6) e0234193. [PMID: 32555612](#)
57. ¥\*Huff A, Reed MD, Iceman K, Howland DR, Pitts T. (2020) Sex-specific vagal and spinal modulation of swallow and its coordination with breathing *PLoS one* 15(6): e0234194. [PMID: 32525920](#)
58. Poliacek I, Veternik M, Martvon L, Simera M, Pitts T, Komanova , Babalova L, Krakikova O, Cibulkova L, Jakus J, Plevkova J. (2021) Volume feedback during cough in anesthetized cats, effects of occlusion and modulation summary. *Journal of Respiratory Physiology and Neurobiology* 283 [PMID: 32942050](#)

59. Feige EL, Mattingly RE, **Pitts T**, Smith AF. (2021) Autism spectrum disorder: investigating predictive adaptive behavior skill deficits in young children. *Autism Research and Treatment*. 2021: 8870461. [PMID: 33604088](#)
60. Frazure M, Brown A, Greene CL, Iceman K, **Pitts T**. (2021) Rapid activation of esophageal mechanoreceptors alters the pharyngeal phase of swallow: evidence for inspiratory activity during swallow. *PLoS one* 16(4): e0248994. [PMID: 33798212](#)
61. **Pitts T**, Huff A, Reed M, Iceman K, Mellen N. (2021) Evidence of intermediate reticular formation involvement in swallow pattern generation: novel use of optical recording in the neonate rat sagittally-sectioned hind-brain. *Journal of Neurophysiology* 125(4): 993-1005. [PMID: 33566745](#)
62. <sup>o</sup>Smith AF, Matusmoto A, Mattingly R, **Pitts T** (2021). Hearing loss: Investigating the comfort, confidence, knowledge, and preparedness of school-based speech-language pathologists. *J Commun Disord Deaf Stud Hearing Aid*. 9:215. [Link](#)
63. <sup>o</sup>Brown R, Smith AF, Goodwin N, **Pitts T**, Mattingly R. (2021). Predictive factors of post-extubation dysphagia (PED) in the overdose (OD) population. *Journal of Community Medicine and Health Education* 11:707. [Link](#)
64. \*Musselwhite MN, Shen TY, Rose MJ, Iceman KE, Poliacek I, **Pitts T**, Bolser DC. (2021) Differential effects of acute cerebellectomy on cough in spontaneously breathing cats. *PLoS one* 16(6): e0253060. [PMID: 34153070](#)
65. Shen TY, Poliacek I, Melanie MJ, Musselwhite MN, Kotmanova Z, Martvon L, **Pitts T**, Davenport PW, Bolser DC. (2022) The role of neuronal excitation and inhibition in the pre-Bötzinger complex on the cough reflex in the cat. *Journal of Neurophysiology* 127(1):267-278. [PMID: 34879205](#)
66. Martvon L, Veternik M, Simera M, Kotmanova Z, Babalova L, Morris KF, **Pitts T**, Bolser DC, Poliacek I. (2022) Modeling and stimulation of vagal afferent input of the cough reflex. *Respiratory Physiology and Neurobiology* 301: 103888. [PMID: 35307565](#)
67. Dowling JJ, Müller-Felber W, Smith BK, Bönnemann CG, Kuntz NL, Muntoni F, Servais L, Alfano LN, Beggs AH, Bilder DA, Blaschek A, Duong T, Graham RJ, Jain M, Lawlor MW, Lee J, Coats J, Lilien C, Lowes LP, MacBean V, Neuhaus S, Noursalehi M, **Pitts T**, Finlay C, Christensen S, Rafferty G, Seferian AM, Tsuchiya E, James ES, Miller W, Sepulveda B, Candida Vila M, Prasad S, Rico S, Shieh PB. (accepted) INCEPTUS Natural history, run-in study for gene replacement clinical trial in x-linked myotubular myopathy. *Journal of Neuromuscular Diseases* 9(4): 503-516. [PMID: 35694931](#)
68. Huff A, Karlen-Amarante M, **Pitts T**, Ramirez JM. (2022) Optogenetic stimulation of preBötzinger complex reveals novel circuit interaction in swallow-breathing coordination. *PNAS* 119(29): e2121095119. [DOI: 10.1073/pnas.2121095119](#)
69. \***Pitts T**, Iceman KE, Huff A, Musselwhite MN, Frazure ML, Young KC, Greene CL, Howland DR. (2022) Laryngeal and swallow dysregulation following acute cervical spinal cord injury. *Journal of Neurophysiology* [PMID: 35830612](#)
70. \***Pitts T**, Iceman KE. (in revision) Swallowing behavior as a model for understanding complex networks. *Physiology*
71. \*Musselwhite MN, Shen TY, Rose M, Iceman KE, Poliacek I, **Pitts T**, Bolser DC. (in revision) The influence of CO<sub>2</sub> on spatiotemporal features of mechanically induced cough in anesthetized cats. *Journal of Respiratory Physiology and Neurobiology*

#### Book Chapters

72. Bautista T, **Pitts** T, Pilowsky P, Morris KF. (2014) The Brainstem Respiratory Network. *Neuronal Networks in Brain Function, CNS Disorders, and Therapeutics* 18: 235-245.
73. <sup>¥</sup>Huff A, **Pitts** T. (2016) Laryngeal Reflexes. *Voice Disorders 3<sup>rd</sup> Edition*. Edited by Sapienza C & Hoffman-Ruddy B. San Diego, CA 2018.
74. <sup>¥</sup>Huff A, **Pitts** T. (2022) Laryngeal Reflexes. *Voice Disorders 4th Edition*. Edited by Sapienza C & Hoffman-Ruddy B. San Diego, CA 2022.

#### Letters to The Editor

75. Wheeler-Hegland K, Sapienza C, **Pitts** T, Troche M, Davenport P. (2011) Comment on Swallowing dysfunction after mechanical ventilation in trauma patients. *Journal of Critical Care* 26: 428-430. [PMID: 21530150](#)

#### Online Continuing Education

76. Contributor/Editor for American Speech-Language-Hearing Association. (n.d.). *Aerodigestive Disorders*. (Practice Portal). From [www.asha.org/Practice-Portal/Clinical-Topics/Aerodigestive-Disorders/](http://www.asha.org/Practice-Portal/Clinical-Topics/Aerodigestive-Disorders/)

## PRESENTATIONS

### Invited Oral Presentations

#### *International*

1. **Pitts** T. Airway protection in Parkinson's disease. *Experimental Biology*. Anaheim, CA: May 2010.
2. **Pitts** T, Morris K, Bolser D. Coordination of cough and swallow in vivo and in silico. *US-Japan Brain Research Cooperative Program Workshop*. Okinawa, Japan: October 2010
3. **Pitts** T, Morris K, Lindsey B, Davenport P, Poliacsek I, Bolser D. Coordination of cough and swallow in vivo and in silico. *Multi-systems Modeling/ National Heart Lung and Blood Institute Meeting*. Washington D.C.: October 2011.
4. **Pitts** T. Invited session chair for "cough and speech pathology." *American Cough Conference*. New York City, NY: June 2011.
5. **Pitts** T. Repetitive coughing: in vivo and computational models. *NIH's Interagency Modeling and Analysis Group*. Washington DC: September 2012.
6. **Pitts** T. Repetitive coughing: in vivo and computational models. *Cough It Up*. Martin, Slovakia: August 2012.
7. **Pitts** T. Microinjection of kynurenic acid (KA) into the medial reticular formation elicits dysphagic swallow motor patterns in the anesthetized cat. *American Laryngological Association's 2012 Annual Meeting at Combined Otolaryngology Spring Meetings*. San Diego, CA: April 2012.
8. **Pitts** T, Gestreau C, Morris KF, Davenport PW, Lindsey BG, Bolser DC. Coordination of swallow and breathing: in vivo and computational model simulations. *NIH's Interagency Modeling and Analysis Group*. Washington DC: October 2013.
9. **Pitts** T. Control of cough and swallowing: neurological interactions. *American Cough Conference*. New York City, NY: May 2013.
10. **Pitts** T. In vivo and in silico models of airway protection. *Interagency Modeling Consortium*. Webinar: January 2014.

11. **Pitts T.** Cough and swallow a meta-behavioral response to aspiration: predicting human disease. *Experimental Biology*. San Diego, CA: May 2014.
12. **Pitts T.** Co-Chair for Airway Defensive Reflexes: Ex vivo, in vivo, in silico and translation to bedside. *Experimental Biology*. San Diego, CA: May 2014.
13. **Pitts T.** Simulation of repetitive cough in humans. *Cough It Up*. Martin, Slovakia: July 2014.
14. **Pitts T.** Speech and swallowing assessments. *Protocol ATX-MTM-009: INCEPTUS Investigator Meeting*. Charlotte, NC: April 2016.
15. **Pitts T.** The coordination of cough and swallow in humans. Speaker and Moderator (From Lab to Clinic), *Martin Days of Respiration and Cough It Up*. Martin, Slovakia: June 2016.
16. **Pitts T.** Vocalization and swallowing: insights from Inceptus. *Protocol ATX-MTM-009: INCEPTUS Investigator Meeting*. Orlando, FL: June 2017.
17. **Pitts T.** Changes in cortical oropharyngeal sensory integration in Parkinson's disease, *Mediterranean Neuroscience Society Sixth Conference*. St. Julian's, Malta: June 2017.
18. **Pitts T.** Computational modeling development for cough. *SPARC Group Meeting*. Gainesville, FL: August 2017.
19. **Pitts T.** Swallow computationally modelled as a tri-level oscillator predicts interactions with breathing. *XIV Oxford Conference on Modelling and Control of Breathing*. Merton College, Oxford, UK: September 2017.
20. **Pitts T.** The importance of spinal pathways in the regulation of swallow. *Experimental Biology*. San Diego, CA: April 2018.
21. **Pitts T.** Laryngeal adductor reflex the surprising arbiter of swallow-breathing coordination. *Martin Days of Respiration and Cough It Up*. Martin, Slovakia: June 2018.
22. **Pitts T.** Plasticity of the muscles controlling swallow and cough. *Physiology without borders, 2nd PanAmerican Congress of Physiological Sciences*. Havana, Cuba: May 2019.
23. **Pitts T.** Airway protection and spinal cord injury: Myths, mechanisms, and management. *Control of Breathing and Airway Defense (CoBAD) International Online Seminar Series*. July 2020.
24. **Pitts T.** Coordination of swallow with breathing & cough- Lessons learned from translational studies. *Where Breathing Meets Swallowing*. Haifa, Israel: July 2022.

#### *National*

25. **Pitts T.** How is cough important? *Advanced Practice Skill: Management for Adults with Tracheostomy and Ventilators*. Veterans Affairs Medical Center. Pittsburg, PA: June 2014.
26. **Pitts T.** Mechanics of cough and swallow. *Advanced Practice Skill: Management for Adults with Tracheostomy and Ventilators*. Veterans Affairs Medical Center. Minneapolis, MI: September 2014.
27. **Pitts T.** Mechanics of cough and swallow. *Advanced Practice Skill: Management for Adults with Tracheostomy and Ventilators*. Veterans Affairs Medical Center. Tacoma, WA: September 2014.
28. **Pitts T.** Interactive Sessions on Pharyngeal/Laryngeal function for treatment recommendations in Expiratory Muscle Strength Training. *Department of Veterans Affairs: Evidence Based Treatment for Dysphagia Training*: May 2015.
29. **Pitts T.** Dysphagia treatment: Utilizing the evidence and clinical experiences for best practices. *Department of Veterans Affairs: Evidence Based Treatment for Dysphagia Training*: May 2015.

30. **Pitts T.** Regulation of airway protection, from bedside to bench and back again. Department of Communicative Disorders, University of Wisconsin- Madison: January 2019.
31. **Pitts T.** Laryngeal dysfunction following spinal cord injury. *Center for Integrative Brain Research, Seattle Children's Research Institute and the University of Washington.* Seattle, WA: June 2019.
32. **Pitts T.** The neurobiology of pain. *National Association of Workers' Compensation Judiciary.* Orlando, FL: September 2019.
33. **Pitts T.** What is pain and why is it so hard to treat? *Southern Association of Workers' Compensation Administrators Conference.* White Sulphur Springs, WV: November 2019.
34. **Pitts T.** The neurobiology of pain. *E. Robert Williams American Inn of Court.* Jacksonville, FL: December 2019.
35. **Pitts T.** Spinal cord injury and the airway: Myths, Mechanisms & Management. Department of Neuroscience, Ohio State University. July 2020.
36. **Pitts T.** Why cough is critical in airway management. *RMST Training Workshops.* October 2020.

#### *Regional*

37. **Pitts T.** The physiology of airway protection. *Department of Physiology Research Seminar Series.* Louisville, KY: July 2015
38. **Pitts T.** What Parkinson's disease has taught us about airway protection? *Louisville Speech-Language Pathology Journal Club.* Louisville, KY: September 2015.
39. **Pitts T.** The regulation of airway protection. *Department of Neurosurgery Grand Rounds.* Louisville, KY: September 2015.
40. **Pitts T.** Spinal Regulation of Swallow. *Department of Anatomical Sciences and Neurobiology Fall Seminar Series.* Louisville, KY: October 2015.
41. **Pitts T.** Effects of spinal cord injury on swallow. *University of Kentucky Physiology Seminar Series.* Lexington, KY: December 2016.
42. **Pitts T.** The importance of spinal pathways in the regulation of swallow. *Ohio River Control of Breathing Symposium.* Louisville, KY: September 2018
43. **Pitts T.** Use of respiratory training to increase airway protection in at-risk populations. *Allied Health Symposium Baptist Health Louisville.* Louisville, KY: September 2018.
44. **Pitts T.** Shared networks, how understanding the brainstem can shape clinical care of airway protection. *Interdisciplinary Neuroscience Grand Rounds.* Louisville, KY: September 2018.
45. **Pitts T.** Dysphagia after SCI and treatment with Buspirone. *Department of Anatomical Sciences and Neurobiology Seminar Series.* Louisville, KY: January 2020.

#### Oral Presentations

##### *International*

46. **Pitts T.** Bolser D, Morris K, Sapienza C. Regulation for Airway Defense Behavior. *Neurology Study Group at the Combined Otolaryngology Spring Meetings.* Orlando, FL: 2008.
47. **Pitts T,** Hegland K, Chan S, Sapienza C, Davenport P. Somatosensory Cortical Evoked Potentials from the Oral-Pharyngeal Wall: Healthy and PD. *Dysphagia Research Society.* New Orleans, LA: March 2009. (Awarded the 2009 New Investigator Grant)
48. **Pitts T.** Cough Production in Parkinson's disease, sensitivity and specificity. *American Speech Hearing Association Conference.* New Orleans, LA: November 2009.

49. **Pitts** T, Wheeler-Hegland K, Davenport PW. Oropharyngeal mechanically elicited cortical evoked potentials in PD and healthy adults; relationships with swallow function. *Dysphagia Research Society*. San Diego, CA: March 2010.
50. **Pitts** T, Carnaby-Mann G, Sapienza C. Sensitivity and specificity of voluntary cough detecting dysphagia in Parkinson's disease. *Dysphagia Research Society*. San Diego, CA: March 2010.
51. **Pitts** T, Bolser D, Sapienza C. Impact of Expiratory Muscle Strength Training on Voluntary Cough and Swallow in Parkinson's Disease. *6th Annual Symposium on Cough*. London, England: June 2010.
52. **Pitts** T. Activity patterns of the thyropharyngeus (ThPh) muscle during eupnea, cough and swallow. *6th Annual Symposium on Cough*. London, England: June 2010.
53. **Pitts** T, Shen TY, Morris KF, Bolser DC. Inspiratory and expiratory dorsal respiratory group neuron activity during swallow. *Dysphagia Research Society*. Chicago, IL: March 2015.
54. **Pitts** T, Greene C, Howland DR, Icemen K. Laryngeal deficits following cervical spinal cord injury and evidence for a novel therapy. *Dysphagia Research Society*. Virtual: February 2021.

### *Regional*

55. **Pitts** T, Hoffman-Ruddy B. Reliability of the CAPE-V on Pediatric Voices with trained and untrained listeners. *Florida Speech-Language and Hearing Association Convention*. Marco Island, FL: June 2005
56. **Pitts** T. Voluntary cough and swallow function. *Brain Rehabilitation Research Center Weekly scientific meeting*. Gainesville, FL: 2008.
57. **Pitts** T. Effects of EMST on voluntary cough and swallow in Parkinson's disease. *Physiological Sciences Seminar Series*. Gainesville, FL: 2008.
58. **Pitts** T. Cough Production in PD. *Florida Speech and Hearing Conference*. Marco Island, FL: May 2009.
59. **Pitts** T. Cough evaluation in Parkinson's disease. *Georgia Speech Hearing Association*. Atlanta, GA: March 2010.
60. **Pitts** T. The swallow breath and the testing of a very old hypothesis. *Kentucky Spinal Cord Injury Research Center Seminar Series*. Louisville, KY: January 2016.
61. **Pitts** T. The effect of SCI on swallow function. *Kentucky Spinal Cord Injury Research Center Seminar Series*. Louisville, KY: November 2016.
62. **Pitts** T. Swallow and serotonin: modulation of central regulation. *Kentucky Spinal Cord Injury Research Center Seminar Series*. Louisville, KY: March 2018.
63. **Pitts** T. Expanding our understanding of the swallow pattern generator. *Kentucky Spinal Cord Injury Research Center Seminar Series*. Virtual: December 2021.

### **ABSTRACTS/POSTERS**

<sup>‡</sup>Denotes mentored student/postdoc/fellow/resident

<sup>◊</sup>Denotes mentored faculty

### *International Meetings*

1. **Pitts** T, Troche M, Bolser D, Rosenbek J, Sapienza C. Voluntary cough production related to swallow dysfunction in PD. *American Speech-Language and Hearing Association*. Boston, MA: November 2007.

2. **Pitts** T, Bolser D, Sapienza C. Voluntary Cough in Patients with PD. *American Academy of Neurology*. Boston, MA: May 2007.
3. **Pitts** T, Bolser D, Rosenbek JC, Troche MS, Sapienza CM. Laryngeal function during voluntary cough: Its relationship to penetration/aspiration and voice quality in Parkinson's disease. *Motor Speech Conference*. Monterrey, CA: March 2008.
4. **Pitts** T, Rose M, Mortensen A, Bolser D. Microinjection of kynurenic acid (KA) into the medial reticular formation elicits dysphagic motor patterns in anesthetized cat. *Dysphagia Research Society*, San Antonio, TX: March 2011.
5. Bolser D, Morris, K Lindsey B, Davenport P, Poliacek I, **Pitts** T. Coordination of cough and swallow in vivo and in silico. *Dysphagia Research Society*, San Antonio, TX: March 2011.
6. **Pitts** T, Morris K, Segers L, O'Connor R, Lindsey B, Nuding S, Davenport P, Bolser D. Paroxysmal coughing: in vivo investigations and model simulation. *Neural Circuits*, Cold Springs Harbor Laboratory, NJ: March 2012.
7. Wheeler-Hegland K, **Pitts** T, Troche M. Airway Protection Deficits for the Speech-Language Pathologist: Cough and Swallowing. *American Speech-Language Hearing Convention*. Atlanta, GA: November 2012.
8. Wheeler-Hegland K, **Pitts** T, Davenport P. Cortical evoked potential response to oral pharyngeal mechanical stimulation. *Neuroscience*. Chicago, IL: November 2009.
9. Bolser DC, Rose MJ, **Pitts** T, Davenport PW, Baekey DM, Nuding SC, Lindsay BG, Shannon R, Gestreau C, Morris KF. Neurogenesis of Airway Protective Behaviors in the Cat: Cough and Pharyngeal Swallow. *Experimental Biology*. New Orleans, LA: March 2009.
10. **Pitts** T, Rose M, Poliacek I, Sapienza C, Davenport P, Bolser D. Activity patterns of the thyropharyngeus (ThPh) muscle during eupnea, cough and swallow. *Experimental Biology*. Anaheim, CA: May 2010.
11. Rose M, **Pitts** T, Poliacek I, Sapienza C, Davenport P, Bolser D. Activity patterns of neurons in the caudal medial medulla are modulated during swallow in the cat. *Experimental Biology*. Anaheim, CA: Ma, 2010.
12. Bolser D, Rose M, Mortensen A, **Pitts** T. Microinjection of kynurenic acid (KA) into the medial reticular formation elicits dysphagic motor patterns in anesthetized cat. *Experimental Biology*. Washington D.C.: April 2011.
13. **Pitts** T, Morris K, Lindsey B, Davenport P, Poliacek I, Bolser D. Coordination of cough and swallow in vivo and in silico. *Experimental Biology*. Washington D.C.: April 2011.
14. Dean J, Rose M, Mortensen A, **Pitts** T, Vovk A, Deoghare H, D'Agostino, Morris K, Davenport P, Bolser D. A new concept in central CO<sub>2</sub> chemoreception and pH regulation: gastric CO<sub>2</sub> ventilation during hypercapnia in anesthetized spontaneous breathing cat. *Experimental Biology*. Washington D.C.: April 2011.
15. **Pitts** T. Repetitive coughing: in vivo and computational models. *Oxford Conference*. Almelo, Netherlands: August 2012.
16. Condrey J, Adams S, Tsai H, **Pitts** T, Hegland K, and Davenport P. Electromyographic pattern analysis of swallow in both conscious and anesthetized rat. *Experimental Biology*. Boston, MA: April 2013.
17. Rose MJ, **Pitts** T, Davenport PW, Morris KF, Lindsey BG, Bolser DC. Laparotomy disrupts respiratory phase preference for swallow. *Experimental Biology*. Boston, MA: April 2013.

18. **Pitts** T, Gestreau C, Rose MJ, Davenport PW, Morris KF, Bolser DC. The mechanical advantage of negative intra-thoracic pressure during swallow. *Experimental Biology*. Boston, MA: April 2013.
19. Nicholas J, Castillo D, **Pitts** T, Rose MJ, Bolser DC. Influence of baclofen on upper airway and spinal motor drive during cough in the anesthetized cat. *Experimental Biology*. Boston, MA: April 2013.
20. Spearman D, **Pitts** T, Rose MJ, Mortensen A, Davenport PW, Bolser DC. Effect of repetitive coughing on swallowing in the anesthetized cat. *Experimental Biology*. Boston, MA: April 2013.
21. Bolser DC, **Pitts** T, O'Connor R, Segers LS, Sapienza CM, Davenport PW, Morris KF, Lindsey BG. Prediction of inverse relationship between compression phase duration and expulsive airflow during voluntary cough in humans by a joint neural network biomechanical computational model. *Experimental Biology*. Boston, MA: April 2013.
22. **Pitts** T, Gestreau C, Morris KF, Lindsey BG, Davenport PW, Bolser DC. Coordination of swallow and breathing: in vivo and computational model simulations. *Experimental Biology*. San Diego, CA: May 2014.
23. Dobrolubov B, Poliacek I, Simera M, Veternik M, Babalova L, **Pitts** T, Jakus J. Uneven cough inhibition by GABA microinjections in the medullary raphe of cat. *8th International Symposium on Cough*. London UK: June 2014.
24. <sup>¥</sup>Shen TY, Musselwhite MN, Rose MJ, Bolser DC, **Pitts** T. Tracheal distension decreases upper airway reflex responsiveness in the cat. *Experimental Biology*. Boston, MA: March 2015.
25. <sup>¥</sup>Musselwhite MN, **Pitts** TE, Shen TY, Rose MJ, Poliacek I, Morris KF, Davenport PW, Bolser DC. Cough-induced hyperventilation does not elicit prolonged apnea during the cough-to-eupnea transition period. *Experimental Biology*. Boston, MA: March 2015.
26. **Pitts** T, King S, Howland D. Spinal pathways for the coordination of swallow and cough. *Society for Neuroscience*. Chicago, IL: October 2015.
27. Shen TY, Gestreau C, Musselwhite MN, Rose MJ, **Pitts** TE, Morris KF, Lindsey BG, Davenport PW, Bolser DC. Frequency-dependent inhibitory mechanisms controlling the laryngeal adductor response. *Experimental Biology*. San Diego, CA: April 2016.
28. Musselwhite MN, **Pitts** TE, Morris KF, Shen TY, Davenport PW, Bolser DC. Adaptive mechanisms governing tracheobronchial cough: in vivo experiments and model simulations. *Experimental Biology*. San Diego, CA: April 2016.
29. <sup>¥</sup>Huff A. (Mentor **Pitts** T) The coordination of cough and swallow behaviors in humans. *Experimental Biology- Respiratory Trainee Highlights Breakfast*. San Diego, CA: April 2016.
30. **Pitts** T, King S, Poliacek I. Ventral medullary inspiratory neurons do not contribute to increased inspiratory drive during swallow. *Experimental Biology*. San Diego, CA: April 2016.
31. <sup>¥</sup>King S, Bolser DC, Rose MJ, Poliacek I, Shen TY, Musselwhite MN, **Pitts** T. Influence of electrical and natural stimulation of pharyngeal/laryngeal sensory afferents on the swallow motor pattern. *Experimental Biology*. San Diego, CA: April 2016.
32. Hoffman Ruddy B, Ilegbushi O, Sapienza C, **Pitts** T, Lehman J. Computational modeling of cough function following expiratory muscle strength training (EMST) for laryngeal dysfunction. *The Voice Foundation*, Philadelphia PA: June 2016.
33. <sup>°</sup>King S, **Pitts** T. Effects of pharyngeal and submental injuries on swallow function. *Dysphagia Research Society*. Portland, OR: March 2017.

34. Rose MJ, Shen TY, Musselwhite MN, **Pitts** TG, Bolser DC. Sex differences in cough responses of cats. *Experimental Biology*. Chicago, IL: April 2017.
35. <sup>¥</sup>Brown A, King SN, Poliacek I, **Pitts** T. Activation of esophageal mechanoreceptors alters the pharyngeal phase of swallow. *Experimental Biology- Respiratory Trainee Highlights Breakfast*. Chicago, IL: April 2017.
36. <sup>¥</sup>Huff A, Greene C, Cheffer KA, O'Steen WA, Howland DR, **Pitts** T. Cervical C2 hemisection acutely induces swallow hyperreflexia. *Experimental Biology- Respiratory Trainee Highlights Breakfast*. Chicago, IL: April 2017.
37. **Pitts** T, Huff A, Greene C, Cheffer KA, O'Steen WA, Howland DR. Effects of Cervical Spinal cord injury on cough. *Experimental Biology*. Chicago, IL: April 2017.
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50. <sup>¥</sup>Reed M, Huff A, Iceman K, Howland D, **Pitts** T. Evidence for stretch feedback in the thyroarytenoid muscle and potential implications in spasmodic dysphonia. *Experimental Biology*. Orlando, FL: April 2019.
51. <sup>¥</sup>Schneider (Young) K, Strecker C, Iceman K, **Pitts** T. Translation of clinical scales for use in translational studies. *Experimental Biology*- abstract published, 2020.
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56. Mellen N, Gourevitch B, Cai J, Musselwhite MN, Iceman K, **Pitts** T. Large-scale optical recording of respiration-modulated neurons in ventrolateral medulla reveals cycle-to-cycle variability compatible with multifunctionality. *Experimental Biology*. Virtual: April 2021.
57. <sup>¥</sup>Frazure M, Young K, Musselwhite N, Greene C, Iceman K, **Pitts** T. Swallowing disorder following a clinical dose of buprenorphine in adult cats. *Society for Neuroscience*. Virtual: November 2021.
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#### *Regional Meetings*

60. Pelish N, **Pitts** T, Chetter KA, O'Steen WA, Winter SK, Howland JR, Long Y, Trimble S, Behrman AL, Howland DR. Stimulating the Sole. *26th Annual Louisville Neuroscience Day*. Louisville, KY: April 2016.
61. <sup>¥</sup>Huff A, Brown EH, Abbas M, Ovechkin AV, **Pitts** T. The effects of cough on swallow motor pattern generation. *26th Annual Louisville Neuroscience Day*. Louisville, KY: April 2016.
62. <sup>¥</sup>King S, Bolser DC, Rose MJ, Poliacek I, Shen TY, Musselwhite MN, **Pitts** T. Influence of electrical and natural stimulation of pharyngeal/laryngeal sensory afferents on the swallow motor pattern. *26th Annual Louisville Neuroscience Day*. Louisville, KY: April 2016.
63. <sup>¥</sup>Brown A, King S, **Pitts** T. The effects of esophageal distension on the pharyngeal phase of swallow. *Research! Louisville*. Louisville, KY: October 2016.

64. <sup>¥</sup>Huff A, Greene C, Cheffer K, O'Steen W, Howland D, **Pitts T**. The effects of C2 acutely induces swallow hyperreflexia. *27th Annual Louisville Neuroscience Day*. Louisville, KY: April 2017.
65. <sup>¥</sup>Brown A, King SN, Poliacek I, **Pitts T**. The pharyngeal phase of swallow is modified by esophageal mechanoreceptors. *27th Annual Louisville Neuroscience Day*. Louisville, KY: April 2017.
66. Kimbel BM, **Pitts T**, King SN. Respiratory and swallowing coordination following suprahyoid injury. *Research! Louisville*. Louisville, KY: September 2017.
67. <sup>¥</sup>English M, Greene C, Huff A, **Pitts T**. Removal of the cerebellum induces hyperventilation and alters swallow. *Research! Louisville*. Louisville, KY: September 2017.
68. <sup>¥</sup>Brown A, King SN, Poliacek I, **Pitts T**. The pharyngeal phase of swallow is modified by esophageal mechanoreceptors. *American College of Physicians Meeting Kentucky Chapter*. Louisville, KY: September 2017.
69. Frazure M, **Pitts T**, Smith AF. Traumatic Brain Injury: Investigating Misconceptions Among Graduate Students in Physical Therapy, Occupational Therapy, and Speech-Language Pathology. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2018.
70. Juergensen K, **Pitts T**, Smith A.F. Autism Spectrum Disorder: Investigating Predictive Diagnostic Relationships in Children Under Three Years. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2018.
71. <sup>¥</sup>McClure MK, Altstadt T, **Pitts T**. New O-C2 fusion surgery approach solving the dysphagia problem. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2018.
72. <sup>¥</sup>McClure MK, Altstadt T, **Pitts T**. New O-C2 fusion surgery approach solving the dysphagia problem. *University of Louisville Graduate Student Regional Research Conference*. Louisville, KY: March 2018.
73. <sup>¥</sup>English A, Reed M, Huff A, **Pitts T**. Investigating relationship between esophageal pressure and inspiratory muscle activity during swallow. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
74. Schantz E, Mattingly R, **Pitts T**, Smith AF. Investigating predictive relationships between students' sense of community, learning and anxiety. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
75. Sherehiy M, Smith AF, **Pitts T**, Mattingly R. Self-efficacy: mothers caring for infants with prenatal drug exposure. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
76. Fletcher B, **Pitts T**, King S. Alterations in licking behaviors following fibrosis in rat mylohyoid muscle. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
77. <sup>¥</sup>Huff A, Reed M, **Pitts T**, Gourévitch B, Mellen N. Electrical stimulation of swallow and coordination with breathing recorded optically in the sagittally-sectioned rat hindbrain. *Neuroscience Day*. Louisville, KY: April 2019.
78. <sup>¥</sup>Reed M, Huff A, Iceman K, Mian S, Howland DR, **Pitts T**. Evidence for stretch feedback in the thyroarytenoid muscle and its implications in spasmodic dysphonia. *25th Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium*. Louisville, KY: May 2019.

79. <sup>¥</sup>Huff A, Reed M, Mian S, Iceman K, **Pitts T**. Gender-specific respiratory response to modulation of vagal and spinal pulmonary afferents. *25th Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium*. Louisville, KY: May 2019.
80. Brown R, Polluck M, Smith AF, **Pitts T**, Mattingly R. Predictive Factors of Post Extubation Dysphagia (PED) in the Overdose (OD) Population. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
81. Matsumoto A, Mattingly R, **Pitts T**, Smith AF. Hearing Loss: Investigating the Comfort, Confidence, Knowledge, and Preparedness of Kentucky School-Based Speech-Language Pathologists. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
82. Fegie E, Mattingly R, **Pitts T**, Smith AF. Autism spectrum disorder: Investigating predictive adaptive behavior skills deficits in young children. *Kentucky Speech and Hearing Association Conference*. Lexington, KY: February 2019.
83. <sup>¥</sup>Musselwhite MN, Shen T, Rose M, Poliacek I, Mellen N, Iceman K, Bolser DC, **Pitts T**. Mapping of the substrate for production of swallow and cough within the rostral nucleus of the tractus solitarius (NTS)/paramedian reticular nucleus by electrical stimulation. *26th Annual KSCHIRT Symposium*. Virtual: May 2021.
84. <sup>¥</sup>Musselwhite MN, Frazure M, Young K, Greene C, Iceman K, Howland DR, **Pitts T**. Swallow synchrony is restored with a 5HT<sub>1A</sub> agonist after cervical spinal cord injury. *Research! Louisville*. Louisville, KY: October 2021.
85. Mellen N, Lane L, Iceman K, Cai J, Gourévitch B, **Pitts T**. Neonatal opioid withdrawal syndrome disrupts the ventral swallow pattern generator in germline-GCamP6F mouse. *Experimental Biology*. Philadelphia, PA: April 2022.
86. <sup>¥</sup>Frazure M, Young K, Musselwhite MN, Greene C, Iceman K, **Pitts T**. Global dysphagia scare detects swallowing disorder following a clinical dose of buprenorphine. *Experimental Biology*. Philadelphia, PA: April 2022.
87. <sup>¥</sup>Musselwhite MN, Young K, Frazure M, Greene C, Iceman K, **Pitts T**. The 5-HT<sub>1A</sub> agonist 8-OH-DPAT enhances submental laryngeal elevator EMG amplitude during swallow. *Experimental Biology*. Philadelphia, PA: April 2022.
88. <sup>¥</sup>Frazure M, Young K, Greene C, Iceman K, **Pitts T**. Model development of opioid induced dysphagia. *Kentucky Spinal Cord and Head Injury Research Trust Symposium*. Louisville, KY: May 2022.

#### Continuing Medical Education (CME) for Speech-Language Pathologists

1. **Pitts T**. Assessing cough in a dysphagia practice. *Northern Speech Services*. available online: 2014. [weblink](#)

#### **WEBPAGES**

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2. Laboratory Website [teresapitts.com](http://teresapitts.com)
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5. [ORCiD](#)
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