

# LEAH BERNADETTE HELOU, PHD, CCC-SLP

## Assistant Professor

University of Pittsburgh | School of Health & Rehabilitation Sciences

Department of Communication Science & Disorders

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## Education

<b>Doctorate of Philosophy</b>	April 2014
University of Pittsburgh, Communication Sciences & Disorders	
Dissertation: <i>Intrinsic Laryngeal Muscle Response to a Speech Preparation Stressor: Personality and Autonomic Predictors</i>	
Advisor: Katherine Verdolini Abbott, PhD	
<b>Master of Arts</b>	May 2004
George Washington University, Speech & Hearing Sciences	
Thesis: <i>Qualitative and Quantitative Measures of Vocal Parameters Following Average Intake of Caffeinated and Non-Caffeinated Beverages</i>	
Advisor: GERALYN SCHULZ, PhD	
<b>Bachelor of Science, Magna cum laude</b>	May 2002
East Carolina University, Communication Sciences & Disorders	

## Work Experience

<i>Jan 2018 – present</i>	Assistant Professor	U. Pittsburgh Department of Communication Science & Disorders
<i>Jul 2014 – Dec 2017</i>	Post-doctoral Associate	Systems Neuroscience Institute, U. Pittsburgh School of Medicine
<i>Feb 2011 – Dec 2017</i>	Speech-Language Pathologist; Director of Transgender Voice Program	University of Pittsburgh Voice Center
<i>Jan 2014 – May 2016</i>	Adjunct Faculty Member	Rutgers University
<i>Aug 2011 – Dec 2013</i>	Adjunct Faculty Member	Duquesne University
<i>Aug 2009 – Apr 2014</i>	Graduate Student Researcher	University of Pittsburgh (U. Pitt)
<i>Jun 2007 – Nov 2012</i>	Research Associate in Speech-Language Pathology ( <i>transitioned to contractor position in Aug 2009</i> )	Henry M. Jackson Foundation for the Advancement of Military Medicine
<i>Sept 2006 – Jun 2007</i>	Clinical Supervisor ( <i>Voice Disorders, Accent Modification &amp; AAC Tracks</i> )	George Washington University (GWU) Department of Speech & Hearing Science
<i>Oct 2006 – May 2007</i>	Speech-Language Pathologist	RehabCare Staffing
<i>Jan 2006 – Jun 2006</i>	Adjunct Faculty Member	California State U. at Fullerton (CSUF), Dept Human Communication Disorders
<i>Sept 2005 – Sept 2006</i>	Speech-Language Pathologist, Director of Voice Programs	Maxum Physical Therapy, Inc.
<i>Jan 2005 – Sept 2005</i>	Clinical Fellow in Speech-Language Pathology	Maxum Physical Therapy, Inc.

## Research Experience

<i>Sept 2016 – present</i>	Principal Investigator	<b>Transgender Voice and Communication Survey: Barriers to receiving care, service model preferences, willingness to pay</b>
<i>July 2016 – present</i>	Principal Investigator	<b>Control of the diaphragm by motor cortical areas</b> , National Heart, Lung, and Blood Institute (#1 F32 HL132586)
<i>Nov 2015 – present</i>	Assisted with study design, grant prep	<b>Subthalamic and corticosubthalamic coding of speech production</b> , National Institute of Neurological Disorders and Stroke (NINDS, # 1 U01 NS098969), Principal Investigator Mark Richardson, M.D.
<i>July 2014 – present</i>	Postdoctoral Scholar	<b>Premotor areas in the frontal lobe</b> , NINDS (#R01 NS24328) Principal Investigator Peter L. Strick, Ph.D.
<i>Jan 2013 – Apr 2014</i>	Principal Investigator	<b>Intrinsic laryngeal muscle response: personality and autonomic predictors</b> (Dissertation study)
<i>Jun 2011 – Apr 2014</i>	Principal Investigator	<b>Intrinsic laryngeal muscle activity in response to sympathetic nervous system activation</b> (Pre-dissertation study)
<i>Jul 2011 – Sep 2011</i>	Research Assistant	<b>Electrocorticography direct brain interface for individuals with upper limb paralysis</b> , funded by NINDS, Defense Advance Research Projects Agency, and University of Pittsburgh Medical Center, Principal Investigator Wei Wang, M.D., Ph.D.
<i>Nov 2010 – Apr 2014</i>	Collaborator, Research Assistant	Arm of <b>Hybrid model of vocal fold inflammation and tissue mobilization</b> involving accelerometric, electroglottographic, and laser Doppler imaging of vocal fold vibration, Principal Investigator (study arm) Luc Mongeau, Ph.D.
<i>May 2010 – Apr 2014</i>	Study Coordinator, Investigator	<b>Hybrid model of vocal fold inflammation and tissue mobilization</b> , NIDCD (#R01 DC005643), Principal Investigator Katherine Verdolini Abbott, Ph.D.
<i>May 2010 – Apr 2014</i>	Research Assistant	<b>Prospective study on prevention and treatment of voice disorders</b> , NIDCD (#R01 DC008567), Principal Investigator Katherine Verdolini Abbott, Ph.D.
<i>2008 – 2010</i>	Collaborator	<b>Orofacial strength in neurogenic speech disorders</b> , Principal Investigator Nancy P. Solomon, Ph.D.
<i>2007 – 2009</i>	Coordinator, Investigator	<b>Referral and practice patterns of medical professionals for patients with post-thyroidectomy/ parathyroidectomy voice impairment</b> , Principal Investigators Alexander Stojadinovic, M.D. and Nancy P. Solomon, Ph.D.
<i>2007 – 2009</i>	Coordinator, Investigator	<b>Auditory perceptual ratings of disordered voices</b> , Principal Investigators Alexander Stojadinovic, M.D. and Nancy P. Solomon, Ph.D.
<i>2007 – 2009</i>	Coordinator, Investigator	<b>VOCAL-trial: Voice Outcomes Appraisal, Longitudinal Trial</b> , Principal Investigators Alexander Stojadinovic, M.D. and Nancy P. Solomon, Ph.D.
<i>2003 – 2004</i>	Principal Investigator	<b>Qualitative and quantitative measures of vocal parameters following average intake of caffeinated and non-caffeinated beverages</b> , Master's thesis completed under the guidance of GERALYN SCHULZ, Ph.D. and SHEILA STAGER, Ph.D.

### Peer-reviewed Publications

- Upcoming: **Helou LB**, Rosen CA, Verdolini Abbott K. Intrinsic laryngeal muscle response to a public speech preparation stressor: personality and autonomic predictors (Part II). *In preparation, target journal: the Journal of Speech, Language, and Hearing Research*.
- Upcoming: **Helou LB**, Rosen CA, Wang W, Verdolini Abbott K. Intrinsic laryngeal muscle response to a public speech preparation stressor: characterizing the response (Part I). *Journal of Speech, Language, and Hearing Research (Accepted pending revisions)*.
- Ziegler A, Henke T, Wiedrick J, **Helou LB**. (2017) Effectiveness of Testosterone Therapy for Masculinizing Voice in Transgender Patients: A Meta-Analytic Review. *International Journal of Transgenderism, Accepted for publication*.
- Helou LB**. (2017) Crafting the dialogue: Meta-therapy in transgender voice and communication training. *Perspectives of the ASHA Special Interest Groups, SIG 10, Vol 2(Part 2)*.
- Solomon NP, Makashay MJ, **Helou LB**, Clark HM. Neurogenic orofacial weakness and speech in adults with dysarthria. *American Journal of Speech Language Pathology, In Press*.
- Vicente DA, Solomon NP, Avital I, Henry LR, Howard RS, **Helou, L.B....Stojadinovic A**. (2014). Voice outcomes after total thyroidectomy, partial thyroidectomy, or non-neck surgery using a prospective multifactorial assessment. *Journal of the American College of Surgeons, 219(1): 152-63*. doi: 10.1016/j.jamcollsurg.2014.03.019
- Nagle KF, **Helou LB**, Solomon NP, Eadie T. (2014) Does the presence or location of graphic markers affect untrained listeners' ratings of severity of dysphonia? *Journal of Voice, 28(4): 469-75* doi: 10.1016/j.jvoice.2013.12.011
- Gillespie AI, **Helou LB**, Ingle JW, Baldwin M, Rosen CA. (2014) The role of voice therapy in the treatment of dyspnea and dysphonia in a patient with vagal nerve stimulation. *Journal of Voice, 28(1), 59-61*. doi: 10.1016/j.jvoice.2013.08.007
- Ingle J, **Helou LB**, Li YK, Hebda PA, Rosen CA, Verdolini Abbott K. (2014) Role of steroids in acute phonotrauma: a basic science investigation. *Laryngoscope, 124(4), 921-7*. doi: 10.1002/lary.23691.
- Helou LB**, Wang W, Ashmore R, Rosen CA, Verdolini Abbott, K. (2013) Intrinsic laryngeal muscle activity in response to autonomic nervous system activation. *Laryngoscope, 123(11), 2756-65*. doi: 10.1002/lary.24109.
- Solomon NP, Henry LR, **Helou LB**, Howard RS, Coppit G, Saha AR, Stojadinovic A. (2013). Utility of the Voice Handicap Index as an indicator of postthyroidectomy voice dysfunction. *Journal of Voice, 27(3), 348-354*. doi:10.1016/j.jvoice.2012.10.012
- Awan SN, Solomon NP, **Helou LB**, Stojadinovic A. (2013) Spectral/cepstral estimation of dysphonia severity: external validation. *Annals of Otology, Rhinology and Laryngology, 122(1), 40-48*. doi: 10.1177/000348941312200108
- Radowsky J, **Helou LB**, Solomon NP, Henry LR, Stojadinovic A. (2013). Racial disparities in voice outcomes following thyroid and parathyroid surgery. *Surgery 153(1), 103-10*. doi: 10.1016/j.surg.2012.06.001
- Solomon NP, Awan SN, **Helou LB**, Stojadinovic A. (2012). Acoustic analyses of thyroidectomy-related changes in vowel phonation. *Journal of Voice, 26(6): 711-20*. doi: 10.1016/j.jvoice.2012.06.006
- Henry LR, **Helou LB**, Solomon NP, Chang A, Libutti SK, Stojadinovic A. (2012) Current practice patterns regarding the conduct of thyroidectomy and parathyroidectomy amongst surgeons – A survey study. *Journal of Cancer, 3: 207-216*. doi: 10.7150/jca.4452
- Stevens K, Stojadinovic A, **Helou LB**, Solomon NP, Howard RS, Shriver CD, Buckenmaier, CC, Henry LR. (2011). The impact of recurrent laryngeal neuromonitoring on multi-dimensional voice outcomes

- following thyroid surgery. *Journal of Surgical Oncology*, 105(1):4-9. doi: 10.1002/jso.22063.
- Solomon, NP, **Helou, LB**, Makashay, MJ, Stojadinovic, A. (2012). Aerodynamic evaluation of the post-thyroidectomy voice. *Journal of Voice*, 26(4),454-461. doi: 10.1245/s10434-008-9936-8
- Solomon NP, **Helou LB**, Dietrich-Burns K, Stojadinovic A. (2011). Do obesity and weight loss affect vocal function? *Seminars in Speech & Language*, Feb; 32(1):31-42. doi: 10.1055/s-0031-1271973
- Awan S, **Helou LB**, Stojadinovic A, Solomon NP. (2011). Tracking voice change after thyroidectomy: application of spectral/cepstral analyses. *Clinical Linguistics & Phonetics*, Apr; 25(4):302-20. doi:10.3109/02699206.2010.535646
- Solomon NP, **Helou LB**, Stojadinovic A. (2011). Clinical versus laboratory ratings of voice using the CAPE-V. *Journal of Voice*, Jan; 25(1):e7-14. doi: 10.1016/j.jvoice.2009.10.007
- Helou LB**, Solomon NP, Henry LR, Coppit GL, Howard RS, Stojadinovic A. (2010). The role of listener experience on Consensus Auditory-perceptual Evaluation of Voice (CAPE-V) ratings of postthyroidectomy voice. *American Journal of Speech-Language Pathology*, Aug; 19(3):248-58. doi: 10.1044/1058-0360(2010/09-0012)
- Henry LR, **Helou LB**, Solomon NP, Howard RS, Gurevich-Uvena JG, Coppit GL, Stojadinovic A. (2010). Functional voice outcomes after thyroidectomy: An assessment of the Dysphonia Severity Index (DSI) after thyroidectomy. *Surgery*, Jun; 147(6):861-70. doi: 10.1016/j.surg.2009.11.017
- Henry LR, Saha A, Solomon N, Howard R, Gurevich-Uvena J, **Horst L**, Orlikoff R, Libutti S, Stojadinovic A. (2008) The functional impact on voice of sternothyroid muscle division during thyroidectomy. *Annals of Surg Onc*, Jul;15(7): 2027-33. doi: 10.1245/s10434-008-9936-8

### Book Chapters and Periodicals

\* equal authorship

- Upcoming*: **Helou LB** & Hirsch S. (Submitted to editors) Discharge and Maintenance. *Voice and Communication Therapy for the Transgender Client: A Comprehensive Clinical Guide, Third Edition*. Invited contribution, due in press February 2018.
- Helou LB**, Jeswani S, Branski RC. (in press). Functional Voice Disorders: Theory and Treatment. In Amin M. (Ed). *International Textbook of Otolaryngologic Principles and Practice*. Jaypee Brothers Medical Publishers, Philadelphia.
- Ziegler A, **Helou LB**, Gillespie A. Respiratory-phonatory interaction: current understanding and potential directions. *The Voice*. Vol 20(1), 2015.
- Solomon NP\*, & **Helou LB**\*. (2013). Aerodynamic assessment of phonation: Avoiding common mistakes. In R. Scherer & K. Verdolini Abbott (Eds.). *Tribute book for Ingo R. Titze*, National Center for Voice and Speech, Salt Lake City.

### Podium Presentations

\* equal authorship

- Lipski WJ, Alhourani A, Pirnia T, Jones PW, Dastolfo-Hromack C, **Helou LB**, Crammond DJ, Shaiman S, Dickey MW, Holt LL, Litman D, Turner RS, Fiez JA, Richardson RM. Speech encoding in the human subthalamic nucleus. Nanosymposium presentation at Neuroscience 2017. Washington DC, November 11-15 2017.
- Helou LB**, Dum R, Strick PL. Cortical control of the costal diaphragm in monkeys. Fall Voice Conference. Washington, DC, October 12-14 2017.
- Wang H, **Helou LB**, Rosen CA. A survey of motivation and barriers related to seeking voice feminization training. Fall Voice Conference. Washington, DC, October 12-14 2017.

- Wang H, **Helou LB**, Rosen CA. Voice feminization: motivation and barriers to transition. Voice Foundation's 46<sup>th</sup> Annual Symposium: Care of the Professional Voice. Philadelphia, PA, May 31-June 4 2017.
- Block C\*, Hirsch S\*, **Helou LB\***. Describing a transgender voice and communication training protocol for SLPs. Part of symposium titled "Global Approaches to a Transgender-Specific Curriculum for Speech-Language Clinicians" at the World Professional Association for Transgender Health's 24<sup>th</sup> Scientific Symposium. Amsterdam, Netherlands, June 17-21, 2016.
- Gillespie AI\*, **Helou LB\***, Ziegler AS\*. Respiration, meet phonation. Advanced Practices in Voice and Dysphagia. Las Vegas, NV, February 22-24, 2015.
- Helou LB\***, Gillespie AI\*, Ziegler AS\*. The dynamic larynx: crossroads of the respiratory and phonatory systems. Invited Presentation for Special Session at Voice Foundation's 43<sup>rd</sup> Annual Symposium: Care of the Professional Voice. Philadelphia, PA, May 28-June 1 2014.
- Helou LB**, Wang W, Verdolini Abbott K, Rosen CA. Intrinsic laryngeal muscle response to psychological stress: psychological and cardiovascular predictors. Voice Foundation's 43<sup>rd</sup> Annual Symposium: Care of the Professional Voice. Philadelphia, PA, May 28-June 1 2014.
- Helou LB**, Rosen CA, Wang W, Verdolini Abbott K. Laryngeal subvocalization during non-vocal linguistic tasks. Voice Foundation's 43<sup>rd</sup> Annual Symposium: Care of the Professional Voice. Philadelphia, PA, May 28-June 1 2014.
- Li, Z., Bakhshaei, H., **Helou, L.**, Li, N.Y.K., Mongeau, L., Kost, K., Rosen, C., and Verdolini, K., "Evaluation of contact pressure in human vocal folds during phonation using high-speed videoendoscopy, electroglottography, and magnetic resonance imaging" Proceedings of the 21th International Conference on Acoustics, Montreal, Canada, June 2-7, 2013. Paper 5pSC5. Abstract published in Journal of the Acoustical Society of America, Vol. 133(5), p. 3618, 2013. POMA 19, 060306 (2013).
- Helou LB**, Rosen CA, Wang W, Verdolini Abbott K. Intrinsic laryngeal muscle response to psychological stress. Fall Voice Conference. Atlanta, GA, October 17-19 2013.
- Helou LB\***, Solomon NP\*. Aerodynamic assessment of phonation: Avoiding common mistakes. American Speech-Language and Hearing Association Annual Convention. Atlanta, GA, November 15-18 2012.
- Gillespie AI, **Helou LB**, Ingle JW, Rosen CA. Case Report: Paradoxical vocal fold motion as a result of vagal nerve stimulation: response to respiratory retraining therapy. Fall Voice Conference. New York, NY, October 4-6 2012.
- Ingle J, **Helou LB**, Li YK, Hebda P, Rosen CA, Verdolini Abbott K. Role of steroids in acute phonotrauma: a basic science investigation. Combined Otolaryngology Spring Meetings. San Diego, CA, April 18-22 2012.
- Ingle J, **Helou LB**, Li YK, Hebda P, Rosen CA, Verdolini-Abbott K. Role of steroids in acute phonotrauma: a basic science investigation. University of California-San Francisco and International Association of Phonosurgery Fall Voice Conference. San Francisco, CA, 2-5 November 2011.
- Helou LB**, Rosen CA, Verdolini-Abbott K. Intrinsic laryngeal muscle activity in response to sympathetic nervous system activation. University of California-San Francisco and International Association of Phonosurgery Fall Voice Conference. San Francisco, CA, 2-5 November 2011.
- Awan S, Stojadinovic A, Solomon NP, **Helou LB**. Acoustic estimation of dysphonia severity in CAPE-V samples: external validation. American Speech-Language and Hearing Association Annual Convention. San Diego, CA, 17-19 November 2011.
- Solomon NP, Makashay M, **Helou LB**, Clark H. Temporal and perceptual characteristics of speech in neurogenic orofacial weakness. American Speech-Language and Hearing Association Annual Convention. San Diego, CA, 17-19 November 2011.
- Solomon NP, Awan SN, **Helou LB**, Stojadinovic A. Acoustic analysis of thyroidectomy-related changes in
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vowel phonation. Voice Foundation's 39th Annual Symposium: Care of the Professional Voice. Philadelphia, PA, 2-6 June 2010.

Solomon NP, **Horst LB**, Makashay MJ, Henry LR, & Stojadinovic A. Aerodynamic voice assessment before and after thyroidectomy. Voice Foundation's 38th Annual Symposium: Care of the Professional Voice. Philadelphia, PA, 2-6 June 2009.

**Horst LB**, Littlefield P, Chang A, Solomon N, Henry L, Stojadinovic A, Coppit G. Otolaryngology practice patterns in the context of post-thyroidectomy voice impairment. ENT World Congress, Sao Paulo, Brazil, 1-5 June 2009.

**Horst LB**, Henry L, Solomon N, Coppit G, Howard S, Stojadinovic A. Ratings of post-thyroidectomy voice quality by experienced and inexperienced listeners. ENT World Congress, Sao Paulo, Brazil, 1-5 June 2009.

### Invited Presentations and Panels

*\* equal authorship*

*Upcoming:* **Helou LB**. The Self that lives in our voice and speech: exploring stress, personality, and the way we communicate. Invited extended short course at the Memphis National Student Speech-Language Hearing Association's 48<sup>th</sup> Annual Mid-South Conference on Communicative Disorders, Memphis, TN. February 22-23, 2018.

**Helou LB**. Transgender Voice and Communication Assessment. Pre-Conference Day for the Fall Voice Conference. Arlington, VA. October 12, 2017.

Block CB\*, Hirsch S\*, **Helou LB\***. Overview of a two-day transgender voice and communication training course for voice clinicians. World Professional Association for Transgender Health. Amsterdam, Netherlands, June 19, 2016.

**Helou, LB**. Panelist: "Functional" Voice Disorders: Old Habits Die Hard. Fall Voice Pre-Conference for Speech Pathologists, Pittsburgh, PA, Oct 15, 2015.

**Helou, LB**. Panelist: Muscle Tension What? Fall Voice Conference, Pittsburgh, PA, Oct 16-18, 2015.

### Poster Presentations

**Helou LB**, Dum R, Strick PL. Two representations of the diaphragm in the primary motor cortex. Neuroscience 2017. Washington DC, November 11-15 2017.

Ingle JW, Roth DR, Shembel A, **Helou LB**, Rosen CA, Verdolini Abbott K. Comparative investigation of biologic effects of two vocal loading conditions in human subjects. Fall Voice Conference. Atlanta, GA, October 17-19 2013.

Henry LR, **Helou LB**, Solomon NP, Chang A, Libutti S, Stojadinovic A. Technical variations in the conduct of thyroidectomy and parathyroidectomy amongs surgeons: A survey study. Society for Surgical Oncology Annual Cancer Symposium. Ft. Lauderdale, FL, 21-24 March 2012.

Nagle K, **Helou LB**, Solomon NP, Eadie T. Do severity markers differentiate visual-analog scale ratings of dysphonia? American Speech-Language and Hearing Association Annual Convention. San Diego, CA, 17-19 November 2011.

**Horst LB** & Solomon NP. Clinical versus laboratory ratings of voice using the CAPE-V. Voice Foundation's 38th Annual Symposium: Care of the Professional Voice. Philadelphia PA, June 2009.

Henry LR, **Horst LB**, Howard RS, Gurevich J, Coppit GL, Felix T, Solomon NP, & Stojadinovic A. Functional voice outcomes after thyroidectomy: Are early reported voice symptoms related to durable laryngoscopic abnormalities? Society of Surgical Oncology Annual Cancer Symposium. Phoenix AZ, March 2009.

Henry LR, **Horst LB**, Howard R, Solomon NP, Eberhardt C, Coppit GL, Shaha A, Stojadinovic A. Validation

of the Voice Handicap Index in predicting voice outcomes after thyroidectomy. Society of Surgical Oncology Annual Cancer Symposium. Phoenix AZ, March 2009.

Henry LR, Shaha A, Solomon N, Howard R, Gurevich-Uvena J, **Horst LB**, Orlikoff R, Libutti S, & Stojadinovic A. Functional voice implications of sternothyroid muscle division during thyroidectomy. 61st Annual Cancer Symposium. Society of Surgical Oncology, Chicago IL, March 2008.

### Workshop Presentations

\* *equal authorship*

**Helou LB\***, Hirsch S\*, & Block C\*. Transgender Voice and Communication Training. Independent educational workshop. Chicago, IL, April 7-8, 2017.

**Helou LB**. Transgender Voice & Communication Training. 10<sup>th</sup> Annual Voice Therapy Conference. Invited lecture and workshop. Pittsburgh, PA. April 1-2, 2017.

**Helou LB\*** & Hirsch S\*. Transgender Voice and Communication Training. Independent educational workshop. Toronto, CA, September 30-October 1, 2016.

**Helou LB\***, Hirsch S\*, & Block C\*. Transgender Voice and Communication Training. Independent educational workshop. Chicago, IL, September 19-20, 2015.

**Helou LB\*** & Block C\*. Voice feminization and masculinization: techniques and tips. Voice Foundation's 44<sup>th</sup> Annual Symposium: Care of the Professional Voice. Workshop presentation. Philadelphia, PA, May 2015.

**Helou LB**. Care of the transgender voice: more than just pitch training. 9<sup>th</sup> Annual Voice Therapy Conference. Invited lecture and workshop. Pittsburgh, PA. April 11-12, 2015.

**Helou LB\*** & Hirsch S\*. Transgender Voice and Communication Training. Independent educational workshop. New York, NY, July 20-21 2013.

**Helou LB\*** & Solomon NP\*. Data done right: avoiding common mistakes in aerodynamics. Voice Foundation's 40<sup>th</sup> Annual Symposium: Care of the Professional Voice. Workshop presentation. Philadelphia, PA, June 2011.

### Research Support

#### Prior Completed Research Support

June 2016 – December 2017

PI, NHLBI 1F32HL132586 – 01, *Control of the Diaphragm by Motor Cortical Areas*, \$119,937

2013-2014

PI, The Voice Foundation Institutional Education Grant, *Intrinsic Laryngeal Muscle Response to a Speech Preparation Stressor*, \$2000

PI, SHRS Research Development Grant, *Intrinsic Laryngeal Muscle Response to a Speech Preparation Stressor*, \$2000

### Teaching Experience

*Undergraduate level courses unless otherwise stated*

#### University of Pittsburgh

Spring 2018

CSD 2073 *Voice Disorders*

#### Rutgers University

LING 391 *Anatomy and Physiology of the Speech Mechanism* (web-based)

Spring 2014- 2016

#### Duquesne University

SLP 524 *Voice Disorders* (graduate level)

Fall 2011, Fall 2013-2014

#### University of Pittsburgh

CSD 1028	Laboratory in <i>Speech Science</i>	Spring 2010
CSD 1027	Laboratory in <i>Anatomy &amp; Physiology of Speech</i>	Fall 2009

**George Washington University**

SPHR 119	<i>Assessment &amp; Modification of Speech &amp; Language</i>	Spring 2007
SPHR 011	<i>Voice &amp; Diction</i>	Fall 2006, Spring 2007
SPHR 011	Laboratory in <i>Voice &amp; Diction</i>	Fall 2002, Spring 2003, Fall 2003

**California State University, Fullerton**

HCOM 345	<i>Communication &amp; Aging</i>	Spring 2006
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**Guest Lectures****California State University, Fullerton**

- “*Preserving the artistic voice*” in undergraduate Theatre Arts Course
- “*Voice feminization: evaluation, treatment, and cultural considerations*” in graduate Voice Disorders course
- “*Introduction to acoustic and aerodynamic analysis*” in graduate Voice Disorders course

**George Washington University**

- “*Diphthongs and vocalic /r/ phonemes in international phonetics*” in undergraduate Phonetics Course
- “*Review of International Phonetic Alphabet transcription*” in undergraduate Voice & Diction Course
- “*Myoelastic-aerodynamic theory of phonation and the Bernoulli effect*” in undergraduate Speech Science Course

**University of Hawaii at Manoa**

- “*Transgender Voice and Communication: evaluation and training*” in graduate Voice Disorders course

**University of Pittsburgh**

- “*Transcription of non-native English speech*” in undergraduate Phonetics Course
- “*Diphthongs and vocalic /r/ phonemic transcription*” in undergraduate Phonetics Course
- “*Considering dialect during evaluation and treatment*” in undergraduate Phonetics Course

**Awards and Honors**

Laryngology Education Foundation Travel Grant (awarded to top abstract submissions)	2017
American Speech-Language-Hearing Association Lessons for Success	2016
Honors of the Southwestern PA Speech-Language and Hearing Association	2014
ASHFoundation New Century Scholars Doctoral Scholarship	2013
Audrey Holland Endowed Research Award, University of Pittsburgh	2011
Bruce Baker Travel Award, University of Pittsburgh	2011
The Columbian Women Scholarship, George Washington University (GWU)	2004
Columbian College of Arts & Sciences Graduate Teaching Assistantship, GWU	2002-2003

**Licensure, Certifications, Professional Memberships**

Member, ASHA Special Interest Division 2 (Neurogenic Communication Disorders)	Dec 2016 – present
Member, Society for Neuroscience	Sept 2014 – present
Member, Center for the Neural Basis of Cognition	July 2014 – present
Certified Member, American Speech-Language and Hearing Association (#12110555)	Jan 2005 – present
Licensed SLP, Commonwealth of Pennsylvania (#SL010249)	Jan 2011 – present
Licensed SLP, State of Virginia (#2202005142)	Nov 2006 – Dec 2009
Licensed SLP, State of California (#15230)	Nov 2005 – Nov 2006
Member, ASHA Special Interest Division 3 (Voice Disorders)	Jan 2005 – Dec 2016

**Technical Skills***Details available upon request*

Physiological measurement techniques (e.g., electromyographic, electrocardiographic, respiratory kinematic)



Voice and speech measurement and assessment techniques (e.g., acoustic, aerodynamic, auditory perceptual, laryngoscopic, electroglottographic)  
 Aseptic surgical procedures in rats and monkeys  
 Brain slice histology and preparation (e.g., immunohistochemical reactions, tissue cutting)  
 Neuroanatomical reconstruction of spinal cord, brainstem, cerebellum, and cortex  
 Software programs (e.g., Matlab, Corel Draw, specialized proprietary software programs)  
 Instructional platforms (e.g., Blackboard, Courseweb, Sakai, WebEx)

## Postdoctoral Education

### Carnegie Mellon University

Cognitive Neuroscience; *Dept of Neuroscience*; Formal audit Fall 2017

### University of Pittsburgh

Neurobiology of Disease; *Dept of Neurobiology*; Formal audit Spring 2017

Human Cardiovascular Psychophysiology; *Dept of Psychology*; Informal Audit Spring 2016

Functional Neuroanatomy; *Dept of Neurobiology*; Informal Audit Fall 2015

### Center for the Integration of Research, Teaching and Learning

How to break through students' misconceptions of science Mar 2017

Preparing for a STEM Academic Career Spring 2017

Creating assessments and evaluations Nov 2016

### Clinical and Translational Science Institute

Communicating research in plain language Feb 2017

Mentoring your trainee, managing your mentor: two sides of the relationship Oct 2016

Reviewing scientific colleagues: responsibilities of peer review Sept 2016

An author's responsibilities: publication and authorship Sept 2015

Performing animal research: the do's and don'ts Jun 2015

## Service

Invited member of Voice and Alaryngeal Communication Topic committee, 2018 ASHA Annual Convention in Boston MA Nov 2018

Invited panel Chairperson and Poster Judge, 46<sup>th</sup> Annual Voice Foundation Symposium, Philadelphia PA June 2017

Developer & Admin, Trans Voice & Communication Training Referral Database Jul 2014 – present

Founder and Moderator, Gender Spectrum Voice & Communication online forum for SLPs Jul 2013 – present

Mentor for novice clinicians in transgender voice and communication care 2012 – present

Invited Ad Hoc Reviewer for *Cerebral Cortex*, *Nature Neuroscience*, *Scientific Reports*, *J. of Voice*, *Laryngoscope*, *American Journal of Speech Language Pathology*, *Perspectives*, *J. of Communication Disorders*, *J. of Speech Language and Hearing Research*

## Media Presence

Featured Interviewee, [Episode 15: Voice Therapy in Transgender Clients](#), Speech Science Podcast Jul 2017

Interviewee, [“Learning to talk like a woman \(or man\)”](#), NY Times Apr 2017

Featured Interviewee, [“Helping transgender people find a voice”](#), 90.5 WESA Sept 2011

## Other and Extracurricular

Trustee, Awesome Pittsburgh ([www.awesomepgh.com](http://www.awesomepgh.com)) Jun 2012 – Oct 2015

Member, Multi-Institutional Voice Research Rounds Sept 2010 – Jul 2015

Laboratory Research Volunteer Program Developer/Coordinator, U. Pittsburgh Aug 2010 – May 2014

U. Pitt SHRS Departmental Research Seminar Coordinator, U. Pittsburgh  
Kay Pentax Advanced Stroboscopy Workshop  
Conversational level Spanish and beginner level Arabic

Aug 2010 – Aug 2011  
Aug 2007

## References

### **Richard Dum, PhD**

Research Associate Prof., Neurobiology  
University of Pittsburgh  
dumr@pitt.edu  
412.648.9049

### **R. Mark Richardson, MD, PhD, FAANS**

Assistant Professor, Neurological Surgery  
Director, Epilepsy and Movement Disorders Surgery  
Faculty, Center for the Neural Basis of Cognition  
University of Pittsburgh  
richardsonrm@upmc.edu  
412.864.1839

### **Clark Rosen, MD, FACS**

Professor, Otolaryngology & Communication  
Science and Disorders  
Director, U. Pittsburgh Voice Center  
Medical Director, Speech Pathology Dept.  
University of Pittsburgh  
rosenca@upmc.edu  
412.232.8970

### **Peter Strick, PhD**

Distinguished Professor and Chair, Neurobiology  
Thomas Detre Endowed Chair in Neuroscience  
Co-Director, Center for Neuroscience at U. Pittsburgh  
Director, Systems Neuroscience Institute  
Scientific Director, U. Pittsburgh Brain Institute  
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