Curriculum Vitae Leslie A. Mahler, PhD, CCC-SLP, MBA

Position Title: Associate Professor, Department of Communicative Disorders

Director, Interdisciplinary Neuroscience Program (2017-2020)

Personal Information:

Home Address: 54 Plantation Drive

Saunderstown, RI 02874

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PA Licensure SL-004494-L NY Licensure 012566 RI Licensure SP00928 NC Licensure 9584

Education:

2000-2006 PhD University of Colorado Speech Language &

Dual Doctorate Boulder, CO Hearing Sciences/Neuroscience

1985-1987 MBA Drake University Strategic Marketing

Des Moines, IA

1976-1977 MA University of the Pacific Communication Disorders

Stockton, CA

1972-1975 BA University of Colorado Speech, Language & Hearing

Boulder, CO Sciences

Honors and Scholarships:

2019 Dean's Award
 2018 Outstanding Service Award
 Health Sciences College - RI
 Health Sciences College - RI

2015 Honored at Optimism Race, Walk, & Roll American Parkinson Disease Assoc - RI

2015 Outstanding Scholarship Award
2014 The Belvin Award for Volunteerism

College of Human Science & Services-URI
American Parkinson Disease Assoc - RI

2001 SLHS Faculty of the Year NSSHLA – CU Chapter

1994 ACE Continuing Education Award ASHA

& 2004 & 2009 & 2014

Staff Member of the Month
 Outstanding MBA Student Award
 Rusk Rehabilitation Center
 Drake University – Faculty

1985 Business School Scholarship Drake University

1976 Graduate School Scholarship University of the Pacific

Research and Other Scholarly Activity:

My main focus of research is to rigorously evaluate clinical treatments for specific neurological diagnoses and translate those findings to clinical practice. My publications are in the areas of assessment and treatment of motor speech disorders/dysarthria and cognitive-linguistic abilities to improve quality of life for adults with neurological diagnoses. My research investigates how principles of motor learning can be translated to the treatment of individuals with neurological diagnoses to drive activity dependent changes in neural plasticity with long-term benefits that generalize to improved functional communication. My research includes populations I treated during my 25 years as a hospital-based SLP such as Parkinson's disease, brain injury, Alzheimer's disease, stroke, Down syndrome, and cerebral palsy. I am also interested in evaluating the impact of deep brain stimulation on speech and swallowing abilities in people with Parkinson disease. In addition, I am collaborating with faculty in the departments of Kinesiology and Food & Nutrition Services to examine the role of cognition in diet and exercise for older obese women and longitudinal research of adults with Parkinson disease and acquired brain injuries. I am co-inventor of technology with Kunal Mankodiya, a faculty member from engineering, to acquire speech data outside of the clinical environment with the goal of improving and maintaining treatment outcomes. More recently, I have combined my expertise in voice and treatment efficacy research to investigate outcomes of a training program for transgender women. Many of my publications reflect the collaborative nature of my work and the inclusion of graduate and undergraduate students from multiple disciplines.

<u>Inventions:</u> Clinical Application of Wearable Telehealth IOT Systems for Speech Processing (2016). Ser. No. 62/242,731.

Publications in chronological order:

Peer-Reviewed Journals:

- Spielman, J., Ramig, L.O., **Mahler, L**., Halpern, A., & Gavin, W.J. (2007) Effects of an extended version of the Lee Silverman Voice Treatment on voice and speech in Parkinson's disease. *American Journal of Speech, Language Pathology, 16*, 95-107.
- **Mahler, L.,** Ramig, L.O., Fox, C. (2009). Intensive voice treatment (LSVT® LOUD) for dysarthria secondary to stroke. *Journal of Medical Speech-Language Pathology*, 17(4), 165-182.
- Spielman, J., **Mahler, L.**, Halpern, A., Gilley, P., Klepitskaya, O., and Ramig. L. (2011). Intensive Voice Treatment (LSVT®LOUD) for Parkinson's disease following Deep Brain Stimulation of the Subthalamic Nucleus. *Journal of Communication Disorders*, 44, 688-700.
- **Mahler, L.** & Jones, H.N. (2012). Intensive treatment of dysarthria in two adults with Down syndrome. *Developmental Neurorehabilitation*, *15*, 44-53.
- **Mahler, L.** & Ramig, L.O. (2012). Intensive voice treatment of dysarthria secondary to stroke. *Journal of Clinical Linguistics and Phonetics*, 26, 681-694.
- Jones, H. N., Crisp, K.D., Moss, T., Strollo, K., Robey, R., Sank, J., Canfield, M., Case, L.E., **Mahler, L. A.,** Kravitz, R., & Kishnani, P.S. (2014). Effects of respiratory muscle training (RMT) in children with infantile-onset Pompe disease and respiratory muscle weakness.

- *Journal of Pediatric Rehabilitation Medicine*, 7(3), 255-265.
- Maris, S., Taetzsch, A., Quintanilla, D., Letendre, J., Picard, A., **Mahler, L**. Xu, F, Lofgren, I. & Delmonico, M. (2014). The combined effects of Tai Chi, resistance training, and diet on physical function and body composition in obese older women. *Journal of Aging Research*, Article ID 657851, 2014. DOI: 10.1155/2014/657851.
- **Mahler, L.,** Ramig, L.O., & Fox, C. (2015). Evidence-based treatment of voice and speech disorders in Parkinson disease. *Current Opinion in Otolaryngology & Head and Neck Surgery*, 23, 209-215.
- Taetzsch, A., Quintanilla, D., Maris, S., Letendre, J., **Mahler, L.** Xu, F, Delmonico, M. & Lofgren, I. (2015). Impact on diet quality and resilience in urban community dwelling obese women with a nutrition and physical activity intervention. *Journal of Aging: Research and Clinical Practice*, 4(2), 102-108.
- Xu F, Letendre, J. Bekke, J. ,Beebe, N., **Mahler LA**, Lofgren IE, Delmonico, M. (2015). Impact of a program of Tai Chi plus behaviorally based dietary weight loss on physical functioning and coronary heart disease risk factors: A community-based study in obese older women. *Journal of Nutrition in Gerontology and Geriatrics*. 34(1), 50-65.
- LoBuono, D.L., Taetzsch, A.G., Lofgren, I.E., Xu, F., Delmonico, M.J., & **Mahler, L.** (2016) Cognitive status and cardio-metabolic risk of patients with acquired brain injury and Parkinson's disease. *Disability and Health Journal*, 9(1), 134-139. DOI: 10.1016.j.dhjo.2015.06.001.
- Xu F, Delmonico, MJ, Lofgren, IE, Uy, KM, Maris, SA, Quintanilla, D., Taetzsch, AG, Letendre, J, **Mahler, L.** (2017) Effect of a combined Tai Chi, resistant training and dietary intervention on cognitive function in obese older women. *Journal of Frailty & Aging*, 6(3), 167-171.
- LoBuono, D., Paulin, C., Xu, F., **Mahler, L.**, Delmonico, M.J., & Lofgren, I.E. (2018). Parkinson's awareness and the role of a health care team in managing Parkinson's disease. *The Digest, Academy of Nutrition and Dietetics*, *53*(2), 13-21.
- Jones, H., Crisp, K., Kuchibhatla, M., **Mahler, L.,** Risoli, T., Jones, C., & Kishnani, P. (2019). Auditory-perceptual speech features in children with Down syndrome. *American Journal on Intellectual and Developmental Disabilities*, 124(4), 324-338.

Manuscripts Accepted and in Press:

- Dahl, K. & **Mahler**, L. (2019). Acoustic measures of transferminine voices and perceptions of voice femininity. *Journal of Voice*.
- <u>Conference Proceedings:</u> [Previously published and presented as Deal]
- **Deal, L.,** Deal, J.L., Wertz, R.T., Kitselman, K.P. and Dwyer, C. (1979) Statistical prediction of change in aphasia: Clinical application of multiple regression analysis. *Proceedings of the Conference on Clinical Aphasiology, Phoenix, AZ*, 95-100.

- Deal, J.L., **Deal, L.,** Wertz, R.T., Kitselman, K.P., and Dwyer, C. (1979) Right hemisphere PICA percentiles: Some speculations about aphasia. *Proceedings of the Conference on Clinical Aphasiolog Phoenix*, AZ, 30-37.
- Dubey, H., Goldberg, J.C, Abtahi, M., **Mahler, L.,** & Mankodiya, K. (2015). EchoWear: Smartwatch technology for voice and speech treatments of patients with Parkinson's disease. *Proceedings of the Wireless Health Conference; National Institutes of Health*, Baltimore, MD. DOI:http://dx.doi.org/10.1145/2811780.2811957.
- Dubey, H., Goldberg, Mankodiya, K., & **Mahler, L.,** (2015). A multi-smartwatch system for assessing speech characteristics of people with dysarthria in group settings. In proceedings of the 17th International Conference on E-health Networking, Application & Services (IEEE HealthCom), October, Boston, MA.
- Monteiro, A., Dubey, H., Yang, Q., Mankodiya, K., & **Mahler, L.** (2016). Fit: A Fog computing device for speech tele-treatments. IEEE International Conference on Smart Computing (SMARTCOMP), June, Washington, DC.
- Borthakur, D., Dubey, H., Constant, N., **Mahler, L**. & Mankodiya, K. (2017). Smart Fog: Fog computing framework for unsupervised clustering analytics in wearable internet of things. Proceedings of Symposium on Big Data Analytics for IoT Healthcare, November, Montreal, Canada.

Book Chapters:

- **Mahler, L.**, Ciucci, M., Ramig, L., & Fox, C. (2008). *Swallowing Problems in Parkinson's disease*. In Trail, M., Protos, E., & Lai, E. (Eds). Neurorehabilitation in Parkinson's disease: An evidence based treatment model. SLACK Inc. Professional Book Division, Thorofare, NJ, pp. 279-294.
- Fox, C., Ramig, L., Halpern, A., Petska, J., & **Mahler, L**. (2008). *A speech therapy home program for patients with Parkinson's disease*. In Trail, M., Protos, E., & Lai, E. (Eds). Neurorehabilitation in Parkinson's disease: An evidence based treatment model. SLACK Inc. Professional Book Division, Thorofare, NJ, pp. 245-276.
- Fox, C., Ramig, L., Sapir, S., Halpern, A., Petska, J., & **Mahler, L**., Farley, B. (2008). *Voice and speech disorders in Parkinson's disease and their treatment*.. In Trail, M., Protos, E., & Lai, E. (Eds). Neurorehabilitation in Parkinson's disease: An evidence based treatment model. SLACK Inc. Professional Book Division, Thorofare, NJ, pp. 297-307.
- Ciucci, M., **Mahler, L**., & McFarland, D. (2011). Swallowing disorders in Parkinson's disease. In Theodoros, D. & Ramig, L. (Eds), *Communication and swallowing in Parkinson disease* (pp. 199-223). Oxford, England: Plural Publishing.
- Dubey, H., Constant, N., Monteiro, A., Abtahi, M., Borthakur, D., **Mahler, L.,** Sun, Y., Yang, Q., & Mankodiya, K. (2017). Fog computing in medical internet-of things:

Curriculum Vitae Page 4 7/31/2019 Leslie A. Mahler Architecture, implementation, and applications. *Handbook of large-scale distributed computing in Smart Healthcare*. Springer.

Teaching Statement:

I joined the faculty at the University of Rhode Island in January 2007 after completing a dual doctorate in Speech and Hearing Sciences and Neuroscience at the University of Colorado-Boulder in December 2006 and am currently a tenured Associate Professor. My goal is to bridge research, classroom teaching, and clinical teaching by maintaining an active clinical practice for research and engage students in discussions of evidence-based care. My classes are designed to enhance the student experience in the classroom through engagement in activities to make students think and analyze new situations. I incorporate research findings from my treatment studies and the literature into classroom teaching and apply theory taught in the classroom to evaluation, diagnosis, and treatment of clients in the clinic towards excellence in training future speech-language pathologists.

My teaching includes interprofessional education collaborating with Kinesiology and Nutrition and Food Science in two groups for adults with neurological diagnoses; Loud for Life for people with Parkinson disease and the Gateway Café for people who have experienced a traumatic brain injury or stroke. The Curricular and Standards Committee recently approved a new course called, "The Real Reason for Brains", which is an interdisciplinary perspective on the neuroscience of communication and movement. The course is a D1 (Integrated) Grand Challenge 200-level course that will meet student needs of multiple disciplines at the university.

Courses Taught at URI 2011-2019:

•	CMD 273	Phonetics

- CMD 280G The Real Reason for Brains (new grand challenge course 2019)
- CMD 491/2 Undergraduate Special Problems
- CMD 560 Voice
- CMD 565 Pre-Practicum
- CMD 570 Clinic
- CMD 571 Medical Speech-Language Pathology
- CMD 581 Dysphagia
- CMD 582 Motor Speech Disorders
- CMD 583 Acquired Cognitive Disorders
- CMD 598 Graduate Special Problems
- CMD 599 MS Thesis
- NEU 101 Foundations of Neuroscience (required for proposed undergraduate major)
- NEU 210 Neuroethics and Diversity (required for proposed undergraduate major)
- NEU 503 Introduction to Neuroscience

Degree

- NEU 504 Neuroethics
- NEU 591 Special Problems
- NEU 599 MS Thesis

Student

Leslie A. Mahler

• NEU 699 Doctoral Thesis

Major Professor for Graduate Students:

Curriculum Vitae	Page 5	7/31/2019

Thesis or Non-Thesis

Date Completed

or **Expected**

Octavia Miller INP/MS Thesis 2014

An intensive total speech treatment using principles of motor learning in an individual with dysarthria.

Jaclyn Schiemer CMD/MS Thesis 2014

Intensive treatment of dysarthria in an adult with a traumatic brain injury.

Charlotte Purcell CMD/MS Thesis 2015

Effects of intensive speech treatment for an individual with spastic dysarthria secondary to stroke.

David Ryder INP/PhD Thesis 2016

The impact of deep brain stimulation on speech comprehensibility and swallowing in patients with idiopathic Parkinson's disease.

Kim Dahl CMD/MS Thesis 2018

Acoustic measures of transfeminine voices and perceptions of voice femininity.

Dennis Byrd INP/PhD Thesis 2019 expected

Motor cortex activity in individuals with Parkinson's disease

Christine Clarkin INP/PhD Thesis 2019 expected

LSVT BIG exercise-induced neuroplasticity in patients with Parkinson's disease

Justin Yehle CMD/MS Thesis 2020 expected

Efficacy of transgender voice training

Major Advisor for Undergraduate Honors Projects

Casey Johnsen May 2015

Project: Dysarthria: A study of effects on communication

Julia Lafen May 2016

Project: Investigating Oral Health Disparities in Individuals with Neurological Disorders

Melody Grobin May 2020

Project: Narratives of people with TBI from the Gateway Cafe

Alexis Grosso May 2020

Project: Creating a book on "Diffability"; reimagining disability as a difference

Julia Gluck May 2020

Project: The impact of deep brain stimulation surgery on speech characteristics

Clinical Expertise:

My areas of expertise include evaluation, diagnosis and treatment of communication and swallowing deficits of adults and adolescents with degenerative neurological disorders such as Parkinson disease, multiple sclerosis, and amyotrophic lateral sclerosis; developmental neurological disorders such as cerebral palsy and Down syndrome; and acquired neurological

disorders such as stroke and traumatic brain injury. I also have experience in the evaluation, diagnosis, and treatment of voice disorders including voice misuse and abuse, neurological voice disorders such as spasmodic dysphonia and essential tremor, head and neck cancer, and transgender voice. My unique combination of experiences and expertise led to the creation of the LOUD for Life program at URI and the first transgender voice clinic.