

Curriculum Vitae

Elaine Kearney, Ph.D.

A. Biographical Information

Primary Address Boston University
Department of Speech, Language, and Hearing Sciences
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Speech Neuroscience Laboratory
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1. EDUCATION AND RESEARCH POSITIONS

Degrees

2013 Jan – 2017 Nov **Ph.D.**, Speech-Language Pathology, Speech Production Laboratory, Rehabilitation Sciences Institute, University of Toronto, Canada. Committee: Drs. Yana Yunusova (Advisor), Luc de Nil, and Luc Tremblay
2007 Sept – 2011 Jun **B.Sc.**, Speech and Language Therapy, Speech and Hearing Sciences, University College Cork, Ireland. Supervisor: Dr. Alice Lee

2. EMPLOYMENT

Current Positions

2018 Jan – Present **Postdoctoral Research Associate**, Speech Neuroscience Laboratory, Department of Speech, Language, & Hearing Sciences, Sargent College of Health & Rehabilitation Sciences, Boston University, Boston, MA. Advisors: Drs. Frank Guenther and Jason Tourville

Previous Positions

2017 Sept – 2017 Dec **Course Instructor**, SLP1520 Principles of Clinical Practice, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2013 Jan – 2017 Dec **Research Assistant**, Vocal Tract Visualization Laboratory, Toronto Rehabilitation Institute, Toronto, Canada.
Project “Visual Feedback Systems in Speech Rehabilitation”. Principal Investigator, Dr. Yana Yunusova
2014 May – 2017 June **Teaching Assistant**, SLP1521 Augmentative and Alternative Communication, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2015 Sept – 2017 April **Teaching Assistant**, JLS476 Linguistics in the Workforce: Clinical Practice and Research, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2015 Sept – 2016 Dec **Teaching Assistant**, SLP 1514 Applied Audiology, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2014 Mar – 2016 April **Teaching Assistant**, SLP1535 Advanced Principles of Clinical Practice, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2014 Mar – 2016 April **Teaching Assistant**, SLP1528 Research in Speech-Language Pathology, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2013 Sept – 2015 Dec **Teaching Assistant**, SLP1528 Neurocognitive Communication, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
2013 Sept – 2015 Dec **Teaching Assistant**, SLP1534 Motor Speech Disorders, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.

2012 Jun – 2012 Dec **Research Assistant**, Speech and Stuttering Institute, Toronto, Canada.
Project “Motor Speech Treatment Protocol for Developmental Motor Speech Disorders”.
Principal Investigator, Dr. Aravind Namasivayam

3. HONOURS

Distinctions and Research Awards

2017 Jun **Polatajko- Howell Student Conference Presentation Fund**, University of Toronto, Canada.
 (Research)
Total Amount: 300 CAD

2017 May **Rehabilitation Sciences Institute Peer Mentorship Award**, University of Toronto, Canada.
 (Distinction)
Total Amount: 100 CAD

2017 May **Rehabilitation Sciences Institute Presentation Award**, University of Toronto, Canada.
 (Distinction)
Total Amount: 300 CAD

2016 Mar **Office of Research Trainees Conference Travel Award**, University Health Network (UHN),
 Toronto, Canada. (Research)
Total Amount: 500 CAD

2015 Nov **Graduate Scholarship Prize**, Toronto Rehabilitation Institute - University Health Network
 (TRI - UHN), Toronto, Canada. (Distinction)
Total Amount: 1,000 CAD

2014 Nov **School of Graduate Studies Conference Grant**, University of Toronto, Canada. (Research)
Total Amount: 850 CAD

2014 Mar **Speech-Language Pathology Travel Award**, Speech-Language Pathology, University of
 Toronto, Canada. (Research)
Total Amount: 425 CAD

2010 May **Undergraduate College Scholarship**, Speech and Hearing Sciences, University College
 Cork, Ireland. (Distinction)
Total Amount: 1,000 EUR

4. PROFESSIONAL AFFILIATIONS AND COMMUNITY INVOLVEMENT

Professional Associations

2014 Nov – 2015 Nov **Member**, National Student Speech Language Hearing Association (NSSLHA)

2011 Jun – 2013 Dec **New Graduate Member**, Irish Association of Speech and Language Therapists (IASLT),
 Ireland

Community Involvement

2015 Sept – 2017 Aug **Member**, Trainee Representative Committee, Toronto Rehabilitation Institute – University
 Healthy Network (TRI-UHN), Toronto, Canada

2015 Sept – 2016 Aug **Member**, Rehabilitation Sciences Graduate Student Union (RSGSU) Social Committee,
 Rehabilitation Sciences Institute, University of Toronto, Canada

2013 Sept – 2015 Aug **Member**, Speech-Language Pathology Social Committee, Speech-Language Pathology,
 Faculty of Medicine, University of Toronto, Canada

B. Publications

1. PEER REVIEWED

1. Haworth, B., **Kearney, E.**, Faloutsos, P., Baljko, M., & Yunusova, Y. (in press). Electromagnetic articulography (EMA) for real-time feedback application: Computational techniques. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*.
2. **Kearney, E.**, Shellikeri, S., Martino, M., & Yunusova, Y. (2018). Augmented visual feedback-aided interventions in motor rehabilitation in Parkinson's disease: A systematic review. *Disability and Rehabilitation*. Advance online publication.
3. **Kearney, E.**, Giles, R., Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (2017). Sentence-level movements in Parkinson's disease: Loud, clear, and slow speech. *Journal of Speech, Language, and Hearing Research, 60*, 3426-3440.
4. Yunusova, Y., **Kearney, E.**, Haworth, M. B., Faloutsos, P., & Baljko, M. (2017). Game-based augmented visual feedback for enlarging speech movements in Parkinson's disease. *Journal of Speech, Language, and Hearing Research, 60*, 1818-1825.
5. **Kearney, E.**, Granata, F., Yunusova, Y., van Lieshout, P., Hayden, D., & Namasivayam, A. (2015). Outcome measures in developmental speech sound disorders with a motor basis. *Current Developmental Disorders, 2*(3), 253-272.
6. Namasivayam, A., Pukonen, M., Hard, J., Jahnke, R., **Kearney, E.**, Kroll, R., & van Lieshout, P. (2015). Motor Speech Treatment Protocol for developmental motor speech disorders. *Developmental Neurorehabilitation, 18*(5), 296-303.
7. Lee, A., Gibbon, F. E., **Kearney, E.**, & Murphy, D. (2014). Tongue-palate contact during selected vowels in children with speech sound disorders. *International Journal of Speech-Language Pathology, 16*(6), 562-570.

2. SUBMITTED

1. **Kearney, E.**, Haworth, M. B., Scholl, J., Giles, R., Faloutsos, P., Baljko, M., & Yunusova, Y. *Treating speech-movement hypokinesia in Parkinson's disease: Does movement size matter and to what extent?* Manuscript under review.

3. IN PREPARATION

1. **Kearney, E.**, Giles, R., & Yunusova, Y. *Speaking rate and intelligibility in Parkinson's disease*. Manuscript in preparation.
2. Giles, R., **Kearney, E.**, Kulkarni, M., & Yunusova, Y. *Acoustic – Kinematic Relationships in Speech: Improving Assessment and Treatment of the Speech Disorder in Parkinson's Disease*. Manuscript in preparation.
3. Bailey, K., **Kearney, E.**, Roberts, E., & Yunusova, Y. *Towards movement-based outcomes for apraxia of speech: A systematic review*. Manuscript in preparation.

4. PROCEEDINGS

1. Haworth, M. B., **Kearney, E.**, Baljko, M., Faloutsos, P., & Yunusova, Y. (2014). Electromagnetic articulography in the development of "serious games" for speech rehabilitation. *Proceedings from PMHA 2014: The 2nd International Workshop on Biomechanical and Parametric Modeling of Human Anatomy*. Vancouver, Canada.

C. Presentations

1. INTERNATIONAL

Invited Presentations

- 2017 Sept The speech movement disorder in Parkinson's disease and its rehabilitation using augmented visual feedback. Boston Speech Motor Control Working Group, Boston University, MA. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Oral presentation).
- 2015 Mar Development of augmented feedback targets for speech rehabilitation in Parkinson's disease. Speech and Hearing Sciences, University College Cork, Ireland. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Oral presentation).

Other Presentations

- 2017 Jul Game-based speech therapy using visual feedback in Parkinson's disease. 7th International Conference on Speech Motor Control. Groningen, Netherlands. Presenter(s): **Kearney, E.**, Haworth, B., Scholl, J., Giles, R., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)
- 2016 Mar Speech movements and intelligibility in Parkinson's disease. 18th Biennial Conference on Motor Speech. Newport Beach, California, USA. Presenter(s): **Kearney, E.**, Shellikeri, S., Giles, R., Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed oral presentation)
- 2016 Mar Movement-based speech therapy for dysarthria in Parkinson's disease and apraxia of speech. 18th Biennial Conference on Motor Speech. Newport Beach, California, USA. Presenter(s): Yunusova, Y., **Kearney, E.**, Haworth, M. B., Faloutsos, P., & Baljko, M. (Refereed oral presentation)
- 2015 Nov Measuring participation in developmental speech sound disorders with a motor basis. American Speech-Language-Hearing Association Convention. Denver, Colorado, USA. Presenter(s): **Kearney, E.**, Granata, F., Yunusova, Y., van Lieshout, P., Hayden, D., & Namasivayam, A. (Refereed poster presentation)
- 2015 Oct Instrumental outcome measures in developmental speech sound disorders with a motor basis. International Association of Orofacial Myology Convention. Orlando, Florida, USA. Presenter(s): Granata, F., **Kearney, E.**, Yunusova, Y., van Lieshout, P., Hayden, D., & Namasivayam, A. (Refereed poster presentation)
- 2015 Aug Artifact removal techniques for 3D electromagnetic articulography. 3rd International Workshop on Biomechanical and Parametric Modeling of Human Anatomy. Montreal, Canada. Presenter(s): Moghaddam, A., Haworth, B., **Kearney, E.**, Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed oral presentation)
- 2014 Nov Articulatory working space in older adults across speaking conditions. American Speech-Language-Hearing Association Convention. Orlando, Florida, USA. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed oral presentation)
- 2014 Aug Electromagnetic articulography in the development of serious games for speech rehabilitation. 2nd International Workshop on Biomechanical and Parametric Modeling of Human Anatomy. Vancouver, Canada. Presenter(s): Haworth, M. B., **Kearney, E.**, Baljko, M., Faloutsos, P., Yunusova, Y. (Refereed oral presentation)
- 2014 Feb Articulatory working space as a kinematic target in augmented feedback applications. 17th Biennial Conference on Motor Speech. Sarasota, Florida, USA. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)

- 2014 Feb Rehabilitative speech computer game calibration using empirical characterizations of articulatory working space. 17th Biennial Conference on Motor Speech. Sarasota, Florida, USA. Presenter(s): Haworth, M. B., **Kearney, E.**, Yunusova, Y., Faloutsos, P., & Baljko, M. (Refereed poster presentation)
- 2012 Jun Tongue-palate contact during selected vowels in children with speech sound disorder of unknown origin. International Clinical Phonetics and Linguistics Association Conference. Cork, Ireland. Presenter(s): Lee, A., **Kearney, E.**, & Gibbon, F. E. (Refereed poster presentation)

2. NATIONAL

Invited Presentations

- 2017 May The speech movement disorder and its rehabilitation in Parkinson's disease using augmented visual feedback. École d'Orthophonie et d'Audiologie, Faculté de Médecine, Université de Montreal, Canada. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Oral presentation)

Other Presentations

- 2017 Sept Speech movements in apraxia of speech. Canadian Stroke Congress. Calgary, Canada. Presenter(s): Roberts, E., **Kearney, E.**, Bailey, K., Graham, N., Rochon, E., & Yunusova, Y. (Refereed poster presentation)
- 2017 Sept Game-based augmented visual feedback treatment for apraxia of speech after stroke. Canadian Stroke Congress. Calgary, Canada. Presenter(s): Yunusova, Y., **Kearney, E.**, Scholl, J., Janik-Jones, C., Haworth, B., Roberts, E., Faloutsos, P., & Baljko, M. (Refereed poster presentation)
- 2011 Nov Tongue-palate contact during selected vowels in children with speech sound disorder of unknown origin. Irish Association of Speech and Language Therapists (IASLT) Biennial Conference. Dublin, Ireland. Presenter(s): Lee, A., **Kearney, E.**, & Gibbon, F. E. (Refereed poster presentation)

3. LOCAL

Other Presentations

- 2017 Mar Development of augmented visual feedback therapy for speech rehabilitation in Parkinson's disease. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada. Presenter(s): **Kearney, E.** (Refereed oral presentation)
- 2016 Nov Game-based speech therapy using visual feedback in Parkinson's disease. Toronto Rehabilitation Institute Research Day. Toronto, Canada. Presenter(s): **Kearney, E.**, Haworth, M. B., Scholl, J., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)
- 2016 Nov Acoustic-kinematic relationships in speech: Improving assessment and treatment of speech disorder in Parkinson's disease. Toronto Rehabilitation Institute Research Day. Toronto, Canada. Presenter(s): Giles, R., **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)
- 2016 Jun Evidence-based practice: Critical appraisal and quality of evidence in clinical research. The Hanen Centre, Toronto. Presenter(s): Namasivayam, A. K., **Kearney, E.**, Sanjeevan, T., Wong, W.Y.S., Granata, F., & Rampersaud, D. (Oral presentation)
- 2016 Mar Speech movements in Parkinson's disease. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada. Presenter(s): **Kearney, E.** (Oral presentation)
- 2015 Nov Speech intelligibility in Parkinson disease. Toronto Rehabilitation Institute Research Day.

Toronto, Canada. Presenter(s): Giles, R., **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)

- 2015 Mar Development of augmented feedback targets for speech rehabilitation in Parkinson's disease. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada. Presenter(s): **Kearney, E.** (Oral presentation)
- 2013 Nov Towards development of augmented visual feedback targets for speech rehabilitation: Articulatory working space. Toronto Rehabilitation Institute Research Day. Toronto, Canada. Presenter(s): **Kearney, E.**, Haworth, M. B., Faloutsos, P., Baljko, M., & Yunusova, Y. (Refereed poster presentation)
- 2013 Nov Enabling serious games for speech rehab: movement space transformation. Toronto Rehabilitation Institute Research Day. Toronto, Canada. Presenter(s): Haworth, M. B., Yunusova, Y., **Kearney, E.**, Faloutsos, P., & Baljko, M. (Refereed poster presentation)
- 2013 Oct Augmented visual feedback in speech rehabilitation. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada. Presenter(s): **Kearney, E.** (Oral presentation)
- 2012 Nov Motor speech treatment protocol: Preliminary data. Toronto Rehabilitation Institute Research Day. Toronto, Canada. Presenter(s): **Kearney, E.**, Namasivayam, A., Pukonen, M., van Lieshout, P., Jahnke, R., Spavor, C., & Kroll, R. (Refereed poster presentation)

D. Teaching

1. CERTIFICATE

- 2016 April Teaching in Higher Education (THE500). Woodsworth College, University of Toronto, Canada.

2. EXPERIENCE

- 2017 Sept – 2017 Dec **Course Instructor**, "Research to Practice", SLP1520 Principles of Clinical Practice, Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2016 Oct **Guest lecturer**, "Quantitative methods", JLS476 Linguistics in the Workforce: Clinical Practice and Research. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2016 Mar **Guest lecturer**, "Communicative excellence", SLP1535 Advanced Principles of Clinical Practice. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2016 Feb **Guest lecturer**, "Outcome measures in articulation disorders", SLP1503 Articulation and Related Disorders. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2015 Nov **Guest lecturer**, "Introduction to motor speech disorders", JLS473 Adult Language Disorders. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2015 Sept **Guest lecturer**, "Neuroanatomy for motor speech disorders", SLP1534 Motor Speech Disorders. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2015 April **Guest lecturer**, "Outcome measures in developmental speech sound disorders with a motor basis", SLP1528 Research in Speech-Language Pathology. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2014 Sept **Guest lecturer**, "Principles of motor learning", SLP1534 Motor Speech Disorders. Speech-Language Pathology, Faculty of Medicine, University of Toronto, Canada.
- 2014 Sept **Guest lecturer**, "Technology for assessment and intervention in motor speech disorders", SLP1534 Motor Speech Disorders. Speech-Language Pathology, Faculty of Medicine,

University of Toronto, Canada.

E. Technical Skills

1. DATA ACQUISITION

Electromagnetic articulography (Wave, Northern Digital Inc.), electropalatography (Articulate Instruments Ltd.)

2. ACOUSTIC ANALYSIS

TF32 Time Frequency Analysis Software, Praat Acoustic Analysis Software

3. STATISTICAL ANALYSIS

R Statistical Computing, SPSS Statistics (IBM)

4. BIBLIOGRAPHIC MANAGEMENT

Endnote (Clarivate Analytics), RefWorks (Proquest Llc)