



### Letter from the Chair

I hope you will enjoy reading Volume 14 of the Annual Intercom Newsletter. This edition as in previous years showcases the innovative research of our faculty, the creativity and dedication of our students, the contributions of our alumni, and the impact of our valued benefactors.

As Chair I am privileged working with an outstanding group of people in our Department, the Rehabilitation Sector, the Faculty of Medicine and the University of Toronto as a whole. As we near the end of 2016, I would like to highlight a few important events from the past year.

Recently, we were notified that the Accreditation Board of the Council for Accreditation of Canadian University Programs in Audiology and Speech-Language Pathology (CACUP-ASLP) has granted our program again a full 7-year accreditation based on the findings of the site reviewers in April and our self-report. This is a wonderful outcome and I am thankful for all the support we received from Dean Young and everyone involved in this process in achieving this critical recognition for the quality of our program, faculty and students.

As you may remember from my column in last year's Intercom, the research stream programs (MSc and PhD) in our department were transferred in September 2015 to the Rehabilitation Sciences Institute (RSI) under the leadership of its Director, Dr. Angela Colantonio. I am happy to report that we have made some minor changes to the existing programs to streamline the procedures for all students in RSI and we are looking for further improvements to the administrative processes to make the SLP students feel truly at home in RSI.

Our colleague Dr. Elina Mainela-Arnold left the department in January as she was offered a position at the University of Turku in Finland. However, she will remain connected to our department in the rank of Assistant Professor, Status-Only and continue to collaborate on research with us from abroad.

We started a search for her replacement and I am very pleased to let you know that we were successful in attracting a stellar young researcher in the area of child language. Her name is Monika Molnar and she will join us in July 2017, from the Basque Centre on Cognition, Brain & Language in San Sebastian, Spain.

This year, we will see Dr. Luigi Girolametto enter his third and final part of phased retirement and we are very sad indeed to see him leave our department. His valuable contributions to research and education over the many years will not be forgotten. Dr. Alice Eriks-Brophy will still be with us for two more years, teaching and supervising research students and we welcome her back in January for the Winter/Spring semester.

We also welcomed Sarah McMahan as a new staff member to our department early this year to take on the position of student affairs assistant. Sarah settled in very quickly and has proven to be a major asset to our department so we are very happy having her being part of our team. If you haven't met her yet, please drop by and say hello. Sarah will be working with Susan J. Wagner, our Coordinator of Graduate Studies, to support student admissions and awards administration as well as aid our student recruitment efforts and to provide administrative support to our students during the course of their program.



This year was again a very successful year for our faculty in terms of research productivity and awards. Please see the awards section of this newsletter for some highlights.

In May, our department together with the Ontario Association of Speech-Language Pathologists and Audiologists (OSLA) organized two special lectures in celebration of the Speech and Hearing Month. Both were a great success with active participation from faculty, students and guest speakers who talked about their perspectives and experiences dealing with communication and swallowing disorders.

Finally, I am very happy to report that this year showed another year of successful collaboration between the 4 units in the rehabilitation sector and together with our colleagues in PT, OS/OT and the Rehabilitation Sciences Institute we have been able to raise more awareness for our professions within and outside the faculty of Medicine. In fact, Dean Young has publicly stated

his strong support for our sector at various occasions, including in his columns in MedEmail and his annual report. Some of our outstanding graduates are featured around this time of the year on the Faculty of Medicine website. I expect this positive relationship to continue to facilitate building a strong representation in our community.

At the end of this year, I want to take the opportunity to express my gratitude to our donors for their continuous efforts to support the department and our students. Without their contributions and passion for our discipline and for those who benefit from our research and clinical practice, we would not be in the strong position we find ourselves at this time. Speech-Language Pathology may be a relatively young and small field of study and practice, but our impact on the quality of life for those affected by speech, language, hearing and swallowing disorders is significant. We hope to have more opportunities in the new year to bring this important message to the attention of the public, funding agencies and governments at all levels.

I also want to thank our Alumni Association, who, as in previous years, organized several events in support of our students, including a very successful Graduation Reception in Victoria's College beautiful chapel. As in previous years, students, family and guests were treated to an engaging performance of the Barbershop Quartet, led by our good friend and loyal supporter, Mr. George Shields.

Finally, a big thank you to all of you for your support, your efforts and your successes in keeping our department on track to fulfil our mission. Without you we wouldn't be able to deliver the best education and training for our students and generate innovative and ground-breaking research.

As always, I encourage you to let me know how we are doing and how you wish to be involved in our departmental activities. I like to end sending you my best wishes for the upcoming holidays and a successful, healthy and happy New Year!

## SLP Alumni Association Distinguished Service Award Winner

Dr. Jokel received her Master's in Health Science and a Ph.D. degree in Speech-Language Pathology from the University of Toronto.

For the past 25 years she has been working with patients inflicted with various neurological disorders, with focus on a rare dementia called primary progressive aphasia (PPA).

She is an assistant professor at the University of Toronto and a scientist at Rotman Research Institute, where she conducts research on signs of dementia in written language and novel intervention approaches to PPA.

She was part of the team on the computational analysis of Agatha Christie's writing suggestive of dementia in her late life. This notion was called one of the 10 ideas of the year by the New York Times Magazine in 2009.



## Faculty Awards - 2017 Highlights

Dr. Catriona Steele received the Lifetime Achievement Award from the Speech-Language and Audiology Canada (SAC) association for her continued distinguished and dedicated service to the association and our profession, in particular with regards to her groundbreaking work in the area of swallowing. She was also recognized at this year's American Speech-Language Hearing Association (ASHA) Convention, for her **Outstanding Contributions in International Achievement** as a member of the International Dysphagia Diet Standardizations Initiative.



Dr. Aravind Namasivayam, (Principal Investigator) and his team won the Excellence in Applied Research Award from SAC for their Motor Speech Research Study funded by the Ontario Government to inform the development of an evidence-based care pathway, supporting the identification and intervention planning for children over 36 months of age with severe speech sound disorder.

Stella Ng Assistant Professor, Status-Only and Clinical Educator to our program, won the American Academy of Audiology New Investigator Research Grant.

Sherry Darling and Nesanet Girma, both Lecturers, Status-Only and Clinical Educators for our program, received the Anderson Individual Teaching Award from the Wightman-Berris Academy at Toronto Western Hospital.

Most recently, Dr. Jokel received funding from the Alzheimer Association and Brain Canada to expand her unique group-based approach to improve communication in people affected by PPA.

She is also working with colleagues at the Rotman Research Institute and other partner organizations on several projects focused on language function, quality of life and non-invasive brain stimulation in PPA.

Dr. Jokel has published extensively on language in dementia and PPA and was awarded the Age Plus prize by the Canadian Institutes of Health Research for a significant contribution to research on aging. This year she was nominated for the prestigious Weston Brain Institute Outstanding Achievement Award for her work in PPA.

Find the whole article "An Agatha Christie mystery: Is Alzheimer's on the page?" [http://www.thestar.com/news/insight/2010/01/an\\_agatha\\_christie\\_mystery\\_is\\_alzheimers\\_on\\_the\\_page.html](http://www.thestar.com/news/insight/2010/01/an_agatha_christie_mystery_is_alzheimers_on_the_page.html)

## Featured Faculty

### Professor Luigi Girolametto

Does coaching with video feedback make a difference to learning? Funded by SSSHRC, four U of T investigators set out to research this question. Luigi Girolametto, Janette Pelletier, Elaine Weitman, and Janice Greenberg used The Hanen Centre's ABC and Beyond program™ to tease out the specific impact of coaching with video feedback on educators' use of program strategies and children's language. In order to do this, the researchers offered two versions of ABC and Beyond™, one that included only group sessions, and the other that included group sessions and coaching with video feedback. Coaching was provided by speech-language pathologists who were experts in language and literacy development in preschoolers.

All three studies used data from the same participants - 32 early childhood educators and 129 4-5 year old children from Toronto child care centres. At the beginning of the study, the educators were videotaped with a small group of children during a shared reading activity and a post-story craft/writing activity (during which educators were provided with paper, crayons, and pencils and asked to have the children draw their favourite part of the story on their paper). The children's vocabulary, MLU, nonverbal IQ, letter naming, letter writing, and phonological awareness skills were also assessed.

Thirty-one educators were assigned to either:

- an experimental group – these educators received the 4 workshops plus 5 sessions with coaching and video feedback. Three of the coaching sessions occurred during the program, and the last two sessions occurred approximately two weeks and four weeks post-program.
- A comparison group – these educators received only the workshops (no coaching/video feedback)

The results indicated that coaching with video feedback made a difference with conversations during shared reading. When Rezzonico et al (2015) compared the educators' shared reading with the children pre- and post-program, they noted that educators in the experimental (video feedback) group asked more experiential reasoning questions – these types of questions make connections between the story and events in the children's lives and introduce elements that are not necessarily in the text (e.g. "How do you feel when you lose your favourite toy?"). Children in the experimental group responded more often to educators' experiential questions and used a significantly higher MLU in their responses to questions.

Coaching with video feedback made a difference with vocabulary teaching strategies. When Namasivayam et al (2014) compared the educators' use of vocabulary-teaching strategies during shared reading pre- and post-program, they noted that both groups of educators and children increased their use of vocabulary-related talk. Also, there was a trend (medium effect size) indicating that educators in the experimental group showed a greater increase in the number of vocabulary-teaching strategies they used. The most significant finding from this study related to the children. The children in the experimental group were more engaged in conversations about word meanings relative to the comparison group

Coaching with video feedback made a difference with print and

phonological awareness references. The third study, by Milburn et al (2015), examined the effects of coaching on educators' and children's references to print and phonological awareness during a craft/writing activity. Milburn et al (2015) found that: educators in the experimental group used a higher quantity of phonological awareness references. Children in the experimental group used significantly more utterances related to phonological awareness during which they talked about producing rhyming words, counting syllables, and identifying words with the same sound.

Taken together, these studies demonstrate the added benefit of individualized coaching with video feedback when combined with group sessions. This benefit was observed not only in the educators' use of strategies, but in the resulting talk demonstrated by the children in their care.

Adapted from Lauren Lowry, The Hanen Centre. The full article is available at: <https://www.hanen.org/SiteAssets/Articles---Printer-Friendly/Research-in-your-Daily-Work/Printer-Friendly---ABC-Feedback.aspx>

### References

**Namasivayam, A. M.**, Hipfner-Boucher, K., Milburn, T., **Weitzman, E.**, Greenberg, J., Pelletier, J. & **Girolametto, L.** (2014). Effects of coaching on educators' vocabulary-teaching strategies during shared reading. *International Journal of Speech-Language Pathology*, 17(4), 346 - 356.

Rezzonico, S., Hipfner-Boucher, K., Milburn, T., **Weitzman, E.**, Greenberg, J., Pelletier, J. & **Girolametto, L.** (2015). Improving preschool educators' interactive shared book reading: Effects of coaching in professional development. *American Journal of Speech-Language Pathology*, DOI:10.1044/2015\_AJSLP-14-0188.

Milburn, T. F., Hipfner-Boucher, K., **Weitzman, E.**, Greenberg, J., Pelletier, J. & **Girolametto, L.** (2015). Effects of coaching on educators' and preschoolers' use of references to print and phonological awareness during a small group craft/writing activity. *Language, Speech, and Hearing Services in Schools*, 46(2), 94-111.

**Weitzman, E.** & Greenberg, J. (2010). *ABC and Beyond: Building Emergent Literacy in Early Childhood Settings*. Toronto, ON: The Hanen Centre.

### Associate Professor Tim Bressmann



In June 2016, Tim Bressmann was invited to the second DELAD Speech Data Bank meeting in Linköping, Sweden. An international working group led by Drs. Martin Ball and Nicole Müller at Linköping University, developed a concept for a repository of normal and disordered speech data. The current website allows researchers to advertise data sets that are available for collaborative research. The team presented a poster about this effort at the International Clinical Phonetics and Linguistics Association's meeting in Halifax, NS, in June.



## Selected Events and Presentations

January 2016, **Benefits and risks of joining online support groups by laryngectomees, family and friends.** Collaborative Academic Practice, Practice-Based Research and Innovation Day 2016, University Health Network - Toronto, Ontario, Canada. Presenter(s): Pothier L, Cuglietta L, Giacobbo N, **Martino R.**

February 2016, **Accuracy in the early identification of dysphagia.** Poster Presentation. Dysphagia Research Society Annual Meeting - Tucson, Arizona, United States. Presenter(s): Currie V, Flowers H, Nicholson G, Kapral M, **Martino, R.**

February 2016, **Dysphagia Treatment: From Evidence to Practice.** Invited. La Disfagia nell'Adulto e nel Bambino: Diagnosi e Trattamento Faenza, Italy. Presenter(s): **Martino, R.**

February 2016, **Early Detection of Dysphagia with Screening in Stroke Patients.** Invited. La Disfagia nell'Adulto e nel Bambino: Diagnosi e Trattamento - Faenza, Italy. Presenter(s): **Martino, R.**

(2016, February) **Screening for dysphagia in people with Parkinson's Disease: A systematic review.** Poster Presentation. Dysphagia Research Society Annual Meeting - Tucson, Arizona, United States. Presenter(s): Yeates E, Mistry C, Cuglietta L, Marras C, **Martino, R.**

February 2016, **Longitudinal changes in the swallow status of head and neck cancer patients treated with systemic therapy and radiotherapy (RT): Results of a swallowing substudy of NCIC CTG HN.6 (NCT00820248).** Dysphagia Research Society Annual Meeting - Tucson, Arizona, United States. Presenter(s): **Martino, R.**, Shaw S, Greco E, Barker J, Durkin L, Gomes A, Nault C, Gantefoer A, Waldron J, Siu L, Gilbert R, Montenegro-Suris A, Parulekar W, O'Sullivan B, Chen B, Ringash J.

February 2016, **Dysphagia intervention for patients with head and neck cancer treated with radiotherapy with or without chemotherapy: A systematic review.** Poster Presentation. Dysphagia Research Society Annual Meeting - Tucson, Arizona, United States. Presenter(s): Greco E, Simic T, Ringash J, Tomlinson G, Inamoto Y, **Martino, R.**

February 2016, **Speech and language in primary progressive aphasia: Recent computational, behavioral and imaging findings.** Rotman Research Institute. Toronto, Ontario, Canada. . Rotman Research Institute. Presenter(s): **Rochon, E**

February 2016, **Texture Modification as an Intervention for Dysphagia: Towards Standard Terminology.** Invited Lecture. Israel Speech-Language Hearing Association Convention. Jerusalem, Israel. Presenter(s): **Steele, C. M**

March 2016, **Identifying Dysphagia: Timing Matters.** Invited. School of Health and Rehabilitation Sciences, Department of Communication Science and Disorders, University of Pittsburgh - Pittsburgh, Pennsylvania, United States. Presenter(s): **Martino, R.**

March, 2016, **Can measures of processing complexity predict progressive aphasia from speech?** CUNY conference on Human Sentence Processing. Gainesville, Florida, United States. Authors: Fraser, K., van Schijndel, M., Graham, N., **Rochon, E.,** Black, S.

March 2016, **The next steps: Introduction to swallowing intervention and therapy. Invited speaker.** North Health Dysphagia Conference. Prince George, BC. Presenter(s): **Steele, C. M.**

March 2016, **Effects of Tactile Repetition Priming on Phoneme Recognition.** The 18th Biennial Madonna Conference on Motor Speech, California, USA. Presenter(s): **Namasivayam, A. K.,** Law, V., Yan, T., Huynh, A., Bali, R., Hayden, D. & **Van Lieshout, P.H.H.M.**

March 2016, **Speech Movements and Intelligibility in Parkinson Disease.** Oral Presentation at 18th Biennial Motor Speech Conference - Newport Beach, United States. Presenter(s): Kearney, E., Baljko, M., Faloutsos, P. & **Yunusova, Y.**

March 2016, **The Neuropathological Signature of Bulbar ALS. Poster presentation at 18th Biennial Motor Speech Conference - Newport Beach,** United States. Presenter(s): Shellikeri, S., Karthikeyan, V., Zinman, L., Keith, J. & **Yunusova, Y.**

March 2016, **Clinical and Physiological Markers of Bulbar Disease.** Poster presentation at 18th Biennial Motor Speech Conference - Newport Beach, United States. Presenter(s): Shellikeri, S., Kulkarni, M., Zinman, L. Green, J.R. & **Yunusova, Y.**

April 2016, **Ultrasonographic imaging in speech research.** UNESP Marilia, Sao Paulo, Brazil. Presenter(s): **Bressmann T.**

April 2016, **Predictors of dysphagia screening after acute ischemic stroke: Who gets tested?** American Academy of Neurology Annual Conference - Vancouver, British Columbia, Canada Presenter(s): Joundi RA, **Martino, R.,** Saposnik G, Fang J, Giannakeas V, Kapral MK

April 2016, **Failing a dysphagia screen after acute ischemic stroke is highly predictive of poor outcomes.** Poster Presentation. American Academy of Neurology Annual Conference - Vancouver, British Columbia, Canada. Presenters: Joundi RA, **Martino, R.,** Saposnik G, Fang J, Giannakeas V, Kapral MK.

April 2016, **Best practice in the identification, assessment and treatment of oropharyngeal dysphagia.** Invited workshop. Ontario Association of Speech-Language Pathologists and Audiologists, Toronto, ON. Presenter(s): **Steele, C. M.**

April 2016, **Making the most of mealtimes (M3): Understanding food intake and its determinants in long-term care residents.** Alberta Gerontological Nurses Association Education Meeting, Edmonton, AB. Presenter(s): Slaughter, S., Keller, H., Lengyel, C., Carrier, N., Duizer, L. & **Steele, C. M.**

April 2016, **Phonological Process Errors Following Motor Speech Treatment In Childhood Apraxia**. Speech Language and Audiology Canada (SAC) Annual Conference, Halifax, NS  
Presenter(s): **Namasivayam, A.K.**, Korzeczek, A., Law, V., Pukonen, M., Goshulak, D., & **Van Lieshout, P**

May 2016, **Assessment of oral-nasal balance disorders – Have we been doing it all wrong?** Linköping University, Sweden.  
Presenter(s): **Bressmann T**, de Boer G.

May 2016, **A Life with Speech and Swallowing Difficulties after Stroke**. Hosted by OSLA in partnership with the Department of Speech-Language for Speech and Hearing Month.  
Presenter(s): **E. Rochon** and **R. Martino**

May 2016, **Clinical and Academic Collaboration: Adding to the Evidence Base**. Toronto General Hospital - Peter Munk Building.  
Presenter(s): **E. Rochon**

May, 2016, **Best practices in the management of oropharyngeal dysphagia**. Invited workshop. Jurong Health Services, Singapore. Presenter(s): **Steele, C. M.**

May 2016, **Best practice in the identification, assessment and treatment of oropharyngeal dysphagia**. Invited workshop. Dysphagia Interest Group, Melbourne, Australia Presenter(s): **Steele, C. M.**

May 2016, **Harnessing key principles of plasticity in dysphagia rehabilitation**. Seminar. Speech Pathology Australia conference. Perth, Australia. Plowman, E. K. & **Steele, C. M.**

May 2016, **The Neuropathological Signature of Bulbar ALS** Poster presentation at Rehabilitation Sciences Institute Research Day - Toronto, Canada. Shellikeri S., Karthikeyan K., Zinman, L., Keith, J. & **Yunusova, Y.**

May 2016, **Speech Movements and Intelligibility in Parkinson's disease** Poster presentation at Rehabilitation Sciences Institute Research Day. Toronto, Canada. Kearney, E., Haworth, M.B., Faloutsos, P., Baljko, M. & **Yunusova, Y**

June 2016, **The effect of semantic memory impairment on the speech of svPPA patients: A discourse-level analysis**. International Clinical Phonetics and Linguistics Association Conference. Halifax, Nova Scotia, Canada. Presenter(s): Authors: Seixas Lima, B., Graham, N.L., **Leonard, C.**, Black, S.E., Tang Wai, D.F., Freedman, M., Levine, B., **Rochon, E.** Poster presented at the International Clinical Phonetics and Linguistics Association Conference, Dalhousie University, Halifax, Nova Scotia, Canada. (Trainee Presentation).

June 2016, **Predictors of dysphagia screening after acute ischemic stroke: Who gets tested?** Congress of the Canadian Neurological Sciences Federation - Quebec City, QC, Canada. Awarded the CNS Francis McNaughton Memorial Prize for best submitted paper. Joundi R, **Martino, R.**, Saposnik G, Fang J, Giannakas V, Kapral MK.

June 2016, **Prevalence of Modified Texture Diets (MTD) in Ca-**

**nadian Long Term Care Homes**. Four City Geriatric Research Day. Schlegel-University of Waterloo, Research Institute for Aging, Waterloo, ON. Vucea, V., Duizer, L. M., Duncan, A. M., Lengyel, C. O., **Steele, C. M.**, Morrison, J. M., Keller, H. H.

July 2016, **Innovations in Dysphagia Management**. Invited: American Head and Neck Society International Conference on Head and Neck Cancer - Seattle, WA, United States. **Martino, R.**

July 2016, **Correlation of clinical and patient-reported outcomes with swallow physiology in head and neck cancer patients treated with systemic therapy and radiotherapy (RT): Results of a swallowing substudy of CCTG HN.6 (NCT00820248)** American Head and Neck Society International Conference on Head and Neck Cancer - Seattle, WA, United States. Presenter(s): **Martino, R.**, Shaw S, Greco E, Durkin L, Gomes A, Nault C, Gantefoer A, Waldron J, Siu L, Gilbert R, Montenegro-Suris A, Parulekar W, O'Sullivan B, Chen B, Ringash J.

August 2016, **Transcallosal inhibition and stroke recovery: Evidence from magnetoencephalography. North Sea Laterality**. Groningen, Netherlands. Presenter(s): **Meltzer, J.A.**

September 2016, **Accuracy in the early identification of dysphagia in adult patients following stroke**. Poster Presentation. Canadian Stroke Congress - Quebec City, Quebec, Canada. Presenter(s): Currie V, Flowers H, Nicholson G, Kapral M, **Martino, R.**

September 2016, **Executive control as a predictor of aphasia therapy success: Evidence from a systematic review**. Poster Presentation. Canadian Stroke Congress - Quebec City, Quebec, Canada. Presenters: Simic T, Greco E, **Rochon, E.**, **Martino, R.**

September 2016, **Treatment efficacy of telerehabilitation compared to in person speech therapy for post-stroke aphasia: a noninferiority study. Advances in Stroke Recovery**. Quebec City, QC. Presenter(s): **Meltzer, J.A.**, Harvey S, Steele R, Baird A.

October 2016, Translation of the TOR-BSST© into Brazilian-Portuguese: **Multi-step forward and backward process**. Poster Presentation. European Society for Swallowing Disorders Congress - Milan, Italy. Presenter(s): Vanin G, Pacheco A, **Martino, R.**

October 2016, **Recent findings from an anomia therapy study: Reflections on treatment intensity in chronic aphasia**. Centre for Speech and Language Intervention Research, Department of Language and Cognition, University College London, London, U.K. **Rochon, E.**

October 2016, **A systematic review of music interventions in the treatment of aphasia**. Poster to be presented at the Academy of Aphasia Conference, October 16-18th, 2016, Llandudno, Wales, UK. Abstract published in Frontiers. Presenter(s): Daley-Meunier, K., Azzimatturo, A, Leonard, C., **Rochon, E.**, Egan, M.

October 2016, **Initiation and suppression of verbal responses in Primary Progressive Aphasia** Poster presented at the Academy of Aphasia Conference, October 16-18th, 2016, Llandudno, Wales, UK. Presenter(s): Abstract published in Frontiers. Graham, N.L., Leonard, C., Tang-Wai, D., Black, S.E., Rochon, E.

October 2016, **The effect of semantic memory deficits on global coherence: An analysis of the discourse of patients with the semantic variant of primary progressive aphasia.** Poster presented at the Academy of Aphasia Conference, Llandudno, Wales, UK. Abstract published in Frontiers. Presenter(s): Seixas Lima, B., Graham, N.L., Leonard, C., Black, S.E., Tang Wai, D.F., Freedman, M., Levine, B., Rochon, E.

October 2016, **The influence of treatment intensity in aphasia after stroke.** Toronto Rehab Research Rounds. Toronto, Ontario, Canada. Presenter(s): Rochon, E.

October 2016, **Making the Most of Mealtimes: Preliminary findings from a national prevalence study on food intake in long-term care.** Canadian Association of Gerontology conference. Montreal, QC. Presenter(s): Slaughter, S., Lengyel, C., Carrier, N., Duizer, L., Steele, C. M. & Keller, H. H.

October 2016, **Precision matching of the flow properties of barium and non-barium stimuli.** European Society of Swallowing Disorders Congress, Milan, Italy. Presenter(s): Barbon, C. E. A., Steele, C. M.

October 2016, **Reduced pharyngeal constriction is associated with post-swallow residue in patients with Amyotrophic Lateral Sclerosis.** European Society of Swallowing Disorders Congress, Milan, Italy. Waito, A. A., Presenter(s): Tabor, L. C., Steele, C. M., Plowman, E. K.

October 2016, **Dysphagia or Presbyphagia? A meta-analysis of swallow timing in the elderly.** European Society of Swallowing Disorders Congress, Milan, Italy. Presenter(s): Namasivayam, A. M., Barbon, C. E. A., Steele, C. M.

October 2016. **The clinical and pathophysiological features of dysphagia in motor neuron disease: A scoping review.** European Society of Swallowing Disorders Congress, Milan, Italy. Presenter(s): Waito, A. A., Valenzano, T. J., Peladeau-Pigeon, M., Steele, C. M.

November 2016, **Assessment of oral-nasal balance disorders – Is there a better way?** Annual convention of the American Speech and Hearing Association, Philadelphia, PA, 17. Presenter(s): Bressmann T, de Boer G.

November 2016, **Swallowing exercises for patients with head & neck cancer treated with radiotherapy: A systematic review.** American Speech-Language-Hearing Association Annual Convention - Philadelphia, Pennsylvania, United States. Presenter(s): Greco E, Simic T, Ringash J, Tomlinson G, Inamoto Y, Martino, R..

November 2016, **Laryngectomy support groups on Facebook: Benefits & risks.** American Speech-Language-Hearing Association Annual Convention - Philadelphia, Pennsylvania, United States. Presenter(s): Pothier L, Cuglietta L, Martino, R..

November 2016, **A content comparison of tools used to assess swallowing in head and neck cancer.** Poster presented at American Speech-Language-Hearing Association Annual Convention - Philadelphia, Pennsylvania, United States. Nund R, Cartmill B, Ward E, Maclean J, Roe J, Patterson J, Martino, R.

November 2016, **Life With Dysphagia: defined by patients & their families.** Invited. American Speech-Language-Hearing Association Annual Convention - Philadelphia, Pennsylvania, United States. Presenter(s): Martino, R, Nund R.

November, 2016, **Evaluation of noninvasive brain stimulation treatments for stroke using MEG.** MEG North America Workshop. Bethesda, MD Presenter(s): Meltzer, J.A. .

November 2016, **Dysphagia management in neurological diseases.** Invited workshop. Institute of Advanced Allied Health Studies, Kowloon Hospital, Hong Kong Steele, C. M..

November 2016, **Differential Effects of Velopharyngeal Dysfunction on Speech Intelligibility During Early & Late Stages of ALS.** Oral presentation at American Speech Language Hearing Association Convention - Philadelphia, United States. Presenter(s): Rong, P., Yunusova, Y. & Green, J.R.

November 2016, **Perceptual, Instrumental and Self-Detection of Early Bulbar Changes in ALS.** Poster presentation at American Speech Language Hearing Association Convention - Philadelphia, United States. Presenter(s): Allison, K., Yunusova, Y., Campbell, T., Wang, J. & Green, J.R.

November 2016, **Acoustic - Kinematic Relationships in Speech: Improving Assessment and Treatment of Speech Disorder in Parkinson's Disease.** Poster presentation at 12th Annual Toronto Rehab Research Day - Toronto, Canada. Giles, R., Kearney, E., Kulkarni, M. & Yunusova, Y.

November 2016, **Game-based Speech Therapy using Visual Feedback in Parkinson's Disease.** Poster presentation at 12th Annual Toronto Rehab Research Day - Toronto, Canada. Kearney, E., Haworth, B., Scholl, J., Faloutsos, P., Baljko, M. & Yunusova, Y.



## Research



### Voice and Resonance Lab

#### Tim Bressmann, PhD, Faculty (Tenured)

We are interested in speech disorders related to craniofacial syndromes (e.g., cleft palate) and head & neck cancer. Some of our current research focuses on the assessment of tongue movement with ultrasound and the acoustic analysis of oral-nasal balance in speech.



### Speech Fluency Lab

#### Luc De Nil, PhD, Faculty (Tenured)

We are exploring brain processes that lead to the development of stuttering in children and adults. By looking at functions and anatomy using state-of-the-art brain imaging, we can understand what factors cause stuttering and, importantly, what we can do better in treatment. In a recent study (Beal, et al. 2013 published in Cortex) we found that there are significant differences in brain anatomy between children who do and do not stutter.



### Childhood Hearing Loss Lab

#### Alice Eriks-Brophy, PhD, Faculty (Tenured)

We are currently investigating the role of culture in parent-child communicative interactions for children with hearing loss using the LENA system. We are also examining cultural bias in assessment, intervention, and language outcomes for Canadian Aboriginal children.



### Child Language Lab

#### Luigi Girolametto, PhD, Faculty (Tenured)

With his research colleagues in Rome, Mantova, and Parma, Luigi is investigating the efficacy of a shared book reading intervention for toddlers with vocabulary delays. The 6-week intervention teaches parents to use focused stimulation as the main teaching strategy. Luigi and his colleagues are measuring the impact of the intervention on vocabulary, pragmatics, and phonology. The intervention manual is being published in Italian for use by professionals in Italy who treat language disorders in toddlers.



### Swallowing Lab

#### Rosemary Martino, PhD, Faculty (Tenured)

We study the pathophysiology of the swallow at the bedside and with instrumentation in patients with head and neck cancer, stroke or Parkinson's disease. Our research develops point of care tools to identify swallowing problems (dysphagia) and its medical consequences, such as aspiration pneumonia, malnutrition and psychological issues. Our tools target earlier and more accurate identification enabling earlier dysphagia interventions. Our overarching goal is to conduct research that will assist clinicians in providing the best possible care to their patients and that will ultimately help reduce the burden of dysphagia for patients, their caregivers and the community.



### Language Sciences Lab

#### Elizabeth Rochon, PhD, Faculty (Tenured)

Our current research is focused on understanding language and communication difficulties in individuals with neurological disorders. With several multidisciplinary research groups, we are characterizing neuroplastic changes after language therapy in stroke patients, determining the optimal dose of anomia therapy in aphasia, investigating whether electrical stimulation is a beneficial adjuvant to aphasia therapy, characterizing the nature and course of language impairments in primary progressive aphasia (PPA), and developing clinical interventions and guidelines for clinicians who work with dementia patients.



### Oral Dynamics Lab

**Pascal van Lieshout, PhD, Faculty (Tenured)**

We are conducting research on oral motor control processes in speech production using state-of-the art technology. Our aim is to provide a better understanding of underlying physiological and physical control mechanisms based on dynamical system theory principles in healthy and speech-disordered populations across the lifespan.



### Speech Production Lab

**Yana Yunusova, PhD, Faculty (Tenured)**

We are conducting an NIH-funded study to diagnose changes in bulbar form of amyotrophic lateral sclerosis. Funded by Parkinson Society of Canada and the Canadian Partnership for Stroke Rehabilitation, we are also developing interactive computer games for treating speech problems in those with Parkinson disease and apraxia of speech due to stroke.



### Bloorview Research Institute

**Deryk Beal, PhD, Assistant Professor (status-appointed),**

Our research focuses on improving outcomes and quality of life for children with acquired and developmental neuro communication disorders. We are interested in the neurobiology of communication and its disorders for the express purpose of innovating and evaluating neurorehabilitation treatments for children with communication disorders. We are also interested in the advancement of neuroimaging techniques for the study of the neural network supporting speech and oral motor control.

## Featured Status Only, Adjunct and Cross Appointed

### Praxis Lab, University Health Network

We are empirically investigating practice-based knowledge, critical reflection, and social and structural influences on practice. Through this research, we aim to better educate and support health professionals. Ultimately, we are working toward a health workforce comprised of agents of change: undaunted by uncertainty, oriented toward ethical care in the face of systemic constraints, and continually striving for compassion, equity, and excellence in healthcare. **Stella Ng, Assistant Professor (status-appointed), Dept of SLP**



### Communication Disorder, Cleft Lip and Palate Program, The Hospital for Sick Children

We are developing an algorithm to rate speech characteristics in patients with velopharyngeal dysfunction (VPD) and continuing to examine speech outcomes following different types of surgical management for VPD.

**Paula Klaimin, Assistant Professor (status-appointed), Dept of SLP**



## Want to learn more about our Research Initiatives?

### Monthly Lunchtime Research Colloquia

If you are unable to join us in person our Monthly Research Colloquia are webcast.

**Lunch and Learn** about current research going on in our labs. A calendar of the lectures can be found at: <http://www.slp.utoronto.ca/research-news/slp-research-colloquia-schedule-2016-2017/>

If you wish to receive instructions on how to join via the web, contact [slp.clinicalaffairs@utoronto.ca](mailto:slp.clinicalaffairs@utoronto.ca) to be added to the e-vite list-serve.



## Selected Research Grants

### Tim Bressmann (Principal Investigator)

**Contagious discourse: Effects of a speech disorder on the interlocutor.** SSHRC. PI: **T. Bressmann** Co-Investigator: J. Pardo \$55,021 (CAD)

### Rosemary Martino (Co-Principal Investigator)

**Swallowing substudy to 'A randomized phase II trial for patients with p16 positive non-smoking associated, locoregionally advanced oropharyngeal cancer'.** National Cancer Institute (USA). PI: S. Yom. Co-Investigators: M. Gillison, J. Caudell, M. Gibson, J. Waldron, P. Xia, C. Chung, M. Yao, C. Kong, R. Subramaniam, R. Jordan, Q. Zhang, M. Truong, L. Walters-Page, J. Rueter, V. Patel, J. Lewin, **R. Martino**. \$284,810 (USD)

**Impact of dysphagia in patients with acute ischemic stroke: Risk factors, interventions, process measures, and outcomes.** Physicians Services Incorporated Foundation. Resident Research Grant. PI: R. Joundi. Co-Investigators: M. Kapral, **R. Martino**, G. Saposnik. \$20,000 (CAD)

**Knowledge translation grant for the ongoing enhancement of the "StrokEngine" website.** Canadian Partnership for Stroke Recovery. Quality of Life Grant. PI: Rochette A. Co-Investigators: N. Korner-Bitensky, R. Teasell, C. Richards, **R. Martino**, S. Page, J. Desrosiers, M. Bayley, D. Bourbonnais, N. Salbach, A. Lamontagne, L. Fellows, F. Kaizer, A. Thomas, L. Kloda, C. Dumoulin, A. Menon, M. Levin, J. Fung, N. Mayo, A. Kagan, J. Eng, L. Poissant, J. Higgins, B. Vachon & J. Cameron. \$60,000 (CAD)

**Swallowing substudy to 'A phase II randomized trial examining quality of life following treatment for early-stage squamous cell carcinoma of the oropharynx: radiotherapy vs. trans-oral robotic surgery (ORATOR)'.** Canadian Cancer Society Research Institute (CCSRI). Quality of Life Grant. PI: A. Nichols (Co-PI), D. Palma (Co-PI). Co-Investigators: E. Winquist, P. Doyle, J. Theurer. **R. Martino**. \$4,500 (CAD)

## Selected Publications

de Boer G., Marino VC., Berti LC., Fabron E., **Bressmann T.** Influence of voice focus on oral-nasal balance in speakers of Brazilian Portuguese. *Folia Phoniatrica et Logopaedica* (in press).

**Bressmann T.**, Radovanovic B., Harper S., **Klaiman P.**, Fisher D., Kulkarni GV. Production of two nasal sounds by speakers with cleft palate. *Cleft Palate-Craniofacial Journal* (in press).

**Bressmann T.**, de Boer G., Marino VC., Fabron E., Berti LC. Influence of voice focus on tongue movement in speech. *Clinical Linguistics and Phonetics* (in press).

De Boer G., **Bressmann T.** Influence of voice focus on oral-nasal balance in speech. *Journal of Voice* (in press).

De Boer G., **Bressmann T.** Application of linear discriminant analysis to the Long Term Averaged Spectra of simulated disorders of oral-nasal balance. *Cleft Palate-Craniofacial Journal*, 2016; 53: e163-e171.

**Bressmann T.**, Harper S., Zhylich I., Kulkarni GV. Perceptual, durational and tongue displacement measures following articulation therapy for rhotic sound errors. *Clinical Linguistics and Phonetics*. 2016; 30: 345-362.

Berti LC, de Boer G, **Bressmann T.** Tongue displacement and durational characteristics of normal and disordered Brazilian Portuguese liquids. *Clinical Linguistics and Phonetics*. 2016; 30: 131-149.

Diepstra, H., Trehub, S.E., **Eriks-Brophy, A.**, & **Van Lieshout, P.H.H.M.** Imitation of Non-Speech Oral Gestures by 8-Month-Old Infants. *Language and Speech*. 2016, In Press.

Flowers, H.L., AlHarbi, M.A., Mikulis, D., Silver, F.L., **Rochon, E.**, Streiner, D., & **Martino, R.** (in press) MRI-based neuroanatomical predictors of dysphagia, dysarthria, and aphasia in patients with first acute ischemic stroke. *Cerebrovascular Diseases*.

Little, J., Barakat-Haddad, C., **Martino, R.**, Pringsheim, T., Tremlett, H., Van Lieshout, P., Walsh, S.J., Gomes, J., & Krewski, D. (in press) Genetic variation associated with the occurrence and progression of neurological disorders. *NeuroToxicology*.

Shellikeri, S., Green, J.R., Kulkarni, M., Rong, P., **Martino, R.**, Zinman, L., & **Yunusova, Y.** (in press) Speech movement measures as markers of bulbar disease in amyotrophic lateral sclerosis. *Journal of Speech, Language, and Hearing Research*.

### Jed Meltzer (Principal Investigator)

**Effects of Noninvasive Brain Stimulation on pathological perilesional activity in stroke.** Heart and Stroke Foundation Canadian Partnership for Stroke Recovery Catalyst Grant. PI: **J. A. Meltzer**, Co-Investigators: **R. Jokel**, P. Verhoeff \$50,000 (CAD)

### Elizabeth Rochon (Co-Investigator)

**Dynamics of language recovery in post-stroke aphasia.** Heart and Stroke Foundation of Canada (HSFC). PI: Brambati, S.M., Marcotte, K. Collaborators: Co-applicants: **E. Rochon.**, C. Leonard, A. Desautels, M. Descoteaux, Collaborator: D. Gilbert, A.P Delgado, J. Barbeau. \$238,689.00 (CAD).

### Catriona M. Steele (Principal Investigator)

**Physiological Flow of Liquids Used in Dysphagia Management.** National Institutes of Health (USA). PI: **C. Steele**, Co-Investigators: B. Hanson; L. Duizer; E. Plowman; M. Bayley, C. Craven, A. Burns, A. Hope; D. Chepeha - \$2.3 million (USD)

### Pascal van Lieshout (Partner Investigator / Co-Applicant)

Speech production in the developing brain. Australian Research Council - Discovery Projects. PI: B. Johnson, Partner investigator(s): P. van Lieshout, D. Cheyne. 338,000 (AUD) [DP170102407; Grants]

### Yana Yunusova (Principal Investigator)

**Markerless facial tracking for speech rehabilitation.** Heart and Stroke Foundation Canadian Partnership for Stroke Rehabilitation (CPSR) Trainee Award. PI: **Y. Yunusova**, A. Bandini, P. Faloutsos, M. Baljko. - \$25,000 (CAD)

**SpeechViz: Visually Enhanced Exploration of Motion-Audio Datasets of Speech Production.** Natural Sciences and Engineering Council of Canada (NSERC) Engage Grants. PI: **Y. Yunusova**, (Co-Investigators) Autodesk, Inc., - \$25,000 (CAD)

**The Role of Anatomical Factors in Speech Production: Towards the Speaker Independent Articulatory Model.** Natural Sciences and Engineering Council. of Canada (NSERC) Discovery Grants. PI: **Y. Yunusova** - \$125,000 (CAD)

Salbach, M., O'Brien, K., Brooks, D., Irvin, E., **Martino, R.**, Takhar, P., Chan, S., & Howe, J. (in press) Considerations for the selection of time-limited walk tests post-stroke: A systematic review of test protocols and measurement properties. *Journal of Neurologic Physical Therapy*.

**Martino, R.**, & McCulloch, T. (2016) The value of therapeutic interventions in oropharyngeal dysphagia management. *Nature Reviews Gastroenterology and Hepatology*. ePub ahead of print. DOI: 10.1038/nrgastro.2016.127.

Flowers, H., Skoretz, S., Flamand-Roze, C., Silver, F., **Rochon, E.**, Fang, J., & **Martino, R.** (2016) Poststroke aphasia frequency, recovery, and outcomes: A systematic review and meta-analysis. *Archives of Physical Medicine and Rehabilitation*. ePub ahead of print. DOI: 10.1016/j.apmr.2016.03.006.

Dziewas, R., Beck, A.M., Clave, P., Hamdy, S., Heppner, H.J., Langmore, S., Leischker, A., **Martino, R.**, Pluschinski, P., Roesler, A., Shaker, R., Sieber, C., Volkert, D., Warnecke, T., & Wirth, R. (2016) Recognizing the Importance of Dysphagia - stumbling blocks and stepping stones in the 21st Century. *Dysphagia*. ePub ahead of print. DOI: 10.1007/s00455-016-9746-2.

## Publications cont

**Martino, R., Candundo, H., Van Lieshout, P., Shin, S., Crispo, J.A.G., & Barakat-Haddad, C.** (2016) Onset and progression factors in Parkinson's Disease: A systematic review. *NeuroToxicology*. ePub ahead of print. DOI: 10.1016/j.neuro.2016.04.003.

Barakat-Haddad, C., Shin, S., Candundo, H., **Van Lieshout, P., & Martino, R.** (2016) A systematic review of risk factors associated with muscular dystrophies. *NeuroToxicology*. ePub ahead of print. DOI: 10.1016/j.neuro.2016.03.007.

**van Lieshout, P., Shin, S., Candundo, H., Martino, R., & Barakat-Haddad, C.** (2016) Onset factors in Cerebral Palsy: A systematic review. *NeuroToxicology*. ePub ahead of print. DOI: 10.1016/j.neuro.2016.03.021.

Wirth, R., Dziewas, R., Beck, A.M., Clavé, P., Hamdy, S., Juergen Heppner, H., Langmore, S., Leischker, A., **Martino, R.**, Pluschinski, P., Roesler, A., Shaker, R., Warnecke, T., Sieber, C.C., & Volkert, D. (2016) Oropharyngeal dysphagia in older persons – from pathophysiology to successful intervention. Results of an international expert meeting. *Clinical Interventions in Aging*. 11: 189-208. DOI: 10.2147/CIA.S97481.

Shaw, S.M., Skoretz, S.A., O'Sullivan, B., Hope, A., Liu, L.W.C., & **Martino, R.** (2016) Valid and reliable techniques for measuring fibrosis in head and neck cancer patients post-radiotherapy: A systematic review. *Head and Neck*. 38: E2322-2334. DOI: 10.1002/hed.24249.

McEwen, S.E., Rodriguez, A.M., **Martino, R.**, Poon, I., Dunphy, C., Rios, J.N., Ringash, J. (2016) "I didn't actually know there was such a thing as rehab": Survivor, family, and clinician perceptions of rehabilitation following treatment for head and neck cancer. *Supportive Care in Cancer*. 24 : 1449-1453. DOI: 10.1007/s00520-015-3021-1.

Hebert, D., Lindsay, P., McIntyre, A., Kirton, A., Rumney, P., Bagg, S., Bayley, M., Dowlathshahi, D., Dukelow, S., Gamhum, M., Glasser, E., Halabi, M., Kang, E., Mackay-Lyons, M., **Martino, R.**, Rochette, A., Rowe, S., Salbach, N., Semenko, B., Stack, B., Swinton, L., Weber, V., Mayer, M., Verrilli, S., Deveber, G., Andersen, J., Barlow, K., Cassidy, C., Dilenge, M-E., Fehlings, D., Hung, R., Iruthayarajah, J., Lenz, L., Majnemer, A., Purtzki, J., Rafay, M., Sommenberg, L., Townley, A., Janzen, S., Foley, N., & Teasell, R. (2016) Canadian Stroke Best Practice Recommendations: Stroke Rehabilitation Practice Guidelines, Update 2015. *International Journal of Stroke*. 2016; 11: 459-484. DOI: 10.1177/1747493016643553.

Rondina II R, Curtiss K, **Meltzer J.A.**, Barese M, Ryan JD. The organisation of spatial and temporal relations in memory. *Memory*, published online May 16, 2016.

Kielar A, Deschamps T, **Jokel R., Meltzer J.A.**, (2016, August). Functional reorganization of language networks for semantics and syntax in chronic stroke: Evidence from MEG. *Human Brain*

*Mapping* 2016 Aug; 37(8):2869-2893.

Kielar A, Deschamps T, 'Chu R, **Jokel R.**, Khatamian YB, Chen JJ, **Meltzer J.A.** (2016, March) Identifying dysfunctional cortex: distinguishing the effects of stroke and healthy aging with resting-state MEG and fMRI. *Frontiers in Aging Neuroscience*, 2016 Mar 3; 8:40.

Rondina II R, Olsen R, McQuiggan D, Fatima Z, Li L, Oziel E, **Meltzer J.A.**, Ryan JD. (2016, Oct.) Age-related changes to oscillatory dynamics in hippocampal and cortical networks. *Neurobiology of Learning and Memory*. Oct;134 Pt A:15-30.

**Meltzer J.A.**, Rose NS, Panamsky L, Leigh RC, Links KA, Silberberg A, Madani N, Deschamps T. (2016, Feb.) Semantic and phonological contributions to immediate and delayed cued sentence recall. *Memory and Cognition*, 44(2): 307-329

Young, V., **Rochon, E.**, Mihailidis, A. (in press). Exploratory analysis of real personal emergency response call conversations: Considerations for personal emergency response spoken dialogue systems. *Journal of Neuro Engineering and Rehabilitation*. Coauthor or Collaborator.

**Rochon, E.**, \*Simic, T., \*Seixas Lima, B. (2016). Overview of current approaches for treating word retrieval deficits demonstrates need for focused research questions and appraisal of the methodological quality of evidence. *Evidence-Based Communication Assessment and Intervention*. <http://dx.doi.org/10.1080/17489539.2016.1204771>

McGilton, K., **Rochon, E.**, Sidani, S., **Ben David, B.**, Saragosa, S., Wilson, R., Epstein, K., Shaw, A., Boscart, V., Pichora-Fuller, K. (in press). Can We Help Care Providers Communicate More Effectively with Persons with Dementia Living in Long Term Care Homes? *American Journal of Alzheimer's Disease and Other Dementia*.

Simic, T., Leonard, C., Laird, L., Cupit, J., Hobler, F., **Rochon, E.** (in press). A usability study of internet-based therapy for naming deficits in aphasia (in press). *American Journal of Speech Language Pathology*.

Graham N.L., Leonard C., Tang-Wai D.F., Black S., Chow T.W., Scott C.J.M., McNeely A.A., Masellis, M., **Rochon E.** (2016). Lack of Frank Agrammatism in the Nonfluent Agrammatic Variant of Primary Progressive Aphasia. *Dementia Geriatric Cognition and Disorders Extra*. 6:407-423

**Jokel, R.**, Kielar, A., Anderson, N.D., Black, S.E., **Rochon, E.**, Graham, S., Freedman, M., Tang-Wai, D. (2016). Behavioral and neuroimaging changes after naming therapy for semantic variant primary progressive aphasia. *Neuropsychologia*. *Neuropsychologia*, Volume 89, August 2016, Pages 191–216. DOI:10.1016/j.neuropsychologia.2016.06.009.

Cupit, J., Graham, N. L., Leonard, C., Tang-Wai, D., Black, S. E., & **Rochon, E.** (2016).

Wh-questions and passive sentences in non-fluent variant PPA and semantic variant PPA: Longitudinal findings of an anagram production task. *Cognitive Neuropsychology*; 1-14.

**Yunusova, Y.**, Graham, N.L., Shellikeri, S., Phuong K., Kulkarni, M., **Rochon, E.**, Tang-Wai, D. F., Chow, T.W., Black, S.E., Zinman L.H. & Green, J.R. (2016). Profiling Speech and Pausing in Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD). *PLOS One*. 2016 Jan 20. 11(1):e0147573.

Code, C., Papathanasiou, I., Rubio-Bruno, S., de la Paz Cabana, M., Villanueva, M.M., Haaland-Johansen, L., Prizl-Jakovac, T., Leko, A., Zemva, N., Patterson, R., Berry, R., **Rochon, E.**, Leonard, C., Robert, A. (2016). I International Patterns of the Public Awareness of Aphasia. *International Journal of Language and Communication Disorders*. 2016 May;51(3):276-84. DOI: 10.1111/1460-6984.12204. Epub 2015 Nov 27

Cupit, J., Leonard, C., Graham, N. L., Seixas Lima, B., Tang-Wai, D., E. Black, S., & **Rochon, E.** (2016). Analysing syntactic productions in semantic variant PPA and non-fluent variant PPA: how different are they? *Aphasiology*; 1-26..

Burbidge, A., Cichero, J. A. Y., Engmann, J. & **Steele, C. M.** (2016). An introduction to fluid mechanics of the oropharyngeal phase of swallowing with particular focus on dysphagia. *Applied Rheology*, 26(6), 64525 DOI: 10.3933/ApplRheol-26-64525.

Valenzano, T. J., Waito, A. A. & Steele, C. M. (2016). Characterizing dysphagia and swallowing intervention in the traumatic spinal injury population. *Dysphagia*, 31(5): 598-609. DOI 10.1007/s00455-016-9728-4.

Frazier, J., Chestnut, A., Jackson, A., Barbon, C. E. A., Steele, C. M. & Pickler, L. (in press). Understanding the Viscosity of Liquids used in Infant Dysphagia Management. *Dysphagia* 31(5): 672-679. DOI: 10.1007/s00455-016-9726-6. PMID 27412005.

Mohammadi, H., Steele, C. M. & Chau, T. (2016). Post-Segmentation Swallowing Accelerometry Signal Trimming and False Positive Reduction. *IEEE Signal Processing Letters*, 23(9): 1221-1225. DOI: 10.1109/LSP.2016.2566582.

Barbon, C. E. A., Hope, A. & Steele, C. M. (in press). Radiation 101: A guide for speech-language pathologists. *ASHA Perspectives*

Nagy, A., Peladeau-Pigeon, M., Valenzano, T. J., Namasivayam, A. M. & Steele, C. M. (2016). The Effectiveness of the Head-Turn-Plus-Chin-Down Maneuver for Eliminating Vallecular Residue. *CoDAS Journal*, 28(2): 113-117. DOI: 10.1590/2317-1782/20162015286.

**Steele, C. M.**, Bayley, M. T., Peladeau-Pigeon, M., Nagy, A., Namasivayam, A. M., Stokely, S. L. & Wolkin, T. (2016). A randomized trial comparing two tongue-pressure resistance training protocols for post-stroke dysphagia. *Dysphagia*, 31(3): 452-461. DOI: 10.1007/s00455-016-9699-5. PMID: 26936446. PMCID: PMC4871779

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- Steele, C. M.** (2016, in press). *The videofluoroscopic swallow evaluation*. In D. Suiter & M. Gosa (Eds). *Dysphagia: Diagnosis and Treatment in Children and Adults*. Thieme Medical Publications
- Namasivayam, A.K.,** Jethava, V., Pukonen, M., Huynh, A., Goshulak, D., **Kroll, R., & Van Lieshout, P.** Parent-Child Interaction in Motor Speech Therapy. Disability and Rehabilitation (IDRE), 2016, In Press. <http://dx.doi.org/10.1080/09638288.2016.1243165>
- Ben-David, B.M.,** Moral, M.I., **Namasivayam, A.K.,** Erci, H., & **Van Lieshout, P.H.H.M.** Linguistic and Emotional-Valence Characteristics of Reading Passages for Clinical Use and Research. Journal of Fluency Disorders, September 2016; 49; 1-12. DOI: <http://10.1016/j.jfludis.2016.06.003>
- Multani, N., Rudzicz, F., Wong, W.Y.S., **Namasivayam, A.K., Van Lieshout, P.** Random item generation is affected by age. Journal of Speech, Language, and Hearing Research. 2016, In Press.
- Slis, A.W., & **Van Lieshout, P.H.H.M.** (2016). The effect of phonetic context on the dynamics of intrusions and reductions. Journal of Phonetics, 2016; 57; 1-20. <http://dx.doi.org/10.1016/j.wocn.2016.04.001>.
- Alves, N, Jobst, C., Ferrari, P., Lalancette, M., Chau, T., **Van Lieshout, P., & Cheyne, D.** An MEG-compatible electromagnetic tracking system for monitoring orofacial kinematics. IEEE Transactions on Biomedical Engineering. August 2016; 63(8): 1709-1717
- Slis, A. W., & **Van Lieshout, P.** The effect of auditory information on patterns of intrusions and reductions. Journal of Speech, Language & Hearing Research, 2016; 59; 430-445
- Barakat-Haddad, C., Shin, S., Candundo, H., **Van Lieshout, P., & Martino, R.** A systematic review of risk factors associated with muscular dystrophies. NeuroToxicology. 2016 In Press
- Van Lieshout P.,** Candundo H., **Martino, R.,** Shin S., Barakat-Haddad C. Onset Factors in Cerebral Palsy: A Systematic Review. Neurotoxicology. pii: S0161-813X(16)30043-2. DOI: 10.1016/j.neuro.2016.03.021. 2016 In Press
- Goy, H., Pichora-Fuller, M. & **Van Lieshout, P.** Effects of age on speech and voice quality ratings. Journal of the Acoustical Society of America. 2016; 139(4): 1648-1659.
- Ben-David, B.M.,** Multani, N., Shakuf, V., Rudzicz, F., & **Van Lieshout, P.H.H.M.** Prosody and semantics are separate but non separable channels in the perception of emotional speech: Test for Rating of Emotions in Speech. Journal of Speech, Language, and Hearing Research. DOI:10.1044/2015\_JSLHR-H-14-0323. 2016; 59(1): 72-89
- Van Lieshout, P.,** Maassen, B., & Terband, H. Speech motor control in normal and disorderd speech: Future developments in theory and methodology. Retrieved from www.asha.org. 2016; In Press.
- Poupplier, M. & **Van Lieshout, P.** Frontiers and challenges in speech error research: A gestural perspective on speech errors in typical and disorderd populations (Chapter 11).
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- Cheyne, D.,** Alves, N., Ferrari, P., Chau, T., & **Van Lieshout, P.** New technologies for measuring the neural basis of articulatory control (Chapter 13). In P. van Lieshout, B. Maassen, & H. Terband, editor(s). Speech motor control in normal and disorderd speech: Future developments in theory and methodology (pp. XXX-XXX). 2016; In Press. Retrieved from www.asha.org
- Gillingham, S., **Yunusova, Y.,** Ganda, A., Black, S., Stuss, D., & Zinman, L. (2016). Assessing cognitive functioning in ALS: A focus on frontal processing. Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration. 2016 Oct; DOI: 10.1080/21678421.2016.1248977.
- Rong, P., **Yunusova, Y.,** Wang, J., Thomas, C., Zinman, L., Pattee, G.L., Berry, J., Perry, B. & Green, J.R. (2016). Predicting speech intelligibility decline in ALS based on the deterioration of individual speech subsystems. PLoS ONE. 2016 May;11(5): e0154971.
- Horwitz-Martin, R.L., Quatieri, T.F., Lammert, A.C., Williamson, J.R., **Yunusova, Y.,** Godoy, E., Mehta, D.D. & Green, J.R. (in press). Relation of Automatically Extracted Formant Trajectories with Intelligibility Loss and Speaking Rate Decline in Amyotrophic Lateral Sclerosis. Paper to appear in Proceedings of 2016 Annual Conference of International Speech Communication Association.
- Rong, P., **Yunusova, Y.** & Green, J.R. (in press). Differential effects of velopharyngeal dysfunction on speech intelligibility during early and late stages of Amyotrophic Lateral Sclerosis. Paper to appear in Proceedings of 2016 Annual Conference of International Speech Communication Association.
- Wang, J., Kothalkar, P., Kim, M., **Yunusova, Y.,** Campbell, T., Heitzman, D. & Green, J.R. (in press). Predicting intelligible speaking rate of individuals with amyotrophic lateral sclerosis from speech acoustics and articulatory samples. Paper to appear in Proceedings of 7th Workshop on Speech and Language Processing for Assistive Technologies.
- Yunusova, Y.,** Kearney, E., Kulkarni, M., Haworth, M.B., Baljko, M. & Faloutsos, P. (revision requested). Game-based augmented visual feedback for enlarging speech movements in Parkinson's disease. Journal of Speech Language & Hearing Research Special issue.
- Allison, K., **Yunusova, Y.,** Campbell, T., Wang, J., Berry, J. & Green, J.R. (submitted). The diagnostic utility of patient-report and speech-language pathologists' ratings for detecting the early onset of bulbar symptoms due to ALS. Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration.
- Haworth, M.B., Faloutsos, P., Baljko, M. & **Yunusova, Y.** (submitted). Electromagnetic Articulography (EMA) deployed in Feedback - Oriented Application Domains: Computational Techniques. Computer Methods in Biomechanics and Biomedical Engineering.



## In the News



Image Courtesy of Makeda Marc-Ali, © University of Toronto

### Faculty of Medicine - Congratulations Graduates

A message from Dean Trevor Young...

“Whether it’s here at home or on the other side of the globe, I want to wish tonight’s graduates well as they begin their careers...”

The full article can be found @

<http://medicine.utoronto.ca/news/rehabilitating-world>

SLP 2016 Graduates Featured this November in Faces U of T Med:

Teenu Sanjeevan, PhD “In the first few months of my PhD, I was introduced to a fundamental question in language acquisition – whether language learning is supported by neurocognitive mechanisms that are exclusive to language development or by more general mechanisms involved in multiple areas of development...”

The full article is available at @

<http://medicine.utoronto.ca/news/faces-u-t-medicine-teenu-sanjeevan>

Emily Neufeld, MHS

“The program provided the opportunity to learn in a classroom setting from distinguished faculty and through hands-on clinical placements. The program was structured so that we could immediately apply what we’d learned in the classroom with real clients under the supervision of practicing speech-language pathologists...”

The full article is available at @

<http://medicine.utoronto.ca/news/faces-u-t-medicine-emily-neufeld>

## Our Department Website is Getting a New look!

The department has launched a new website.

Find us at <http://www.slp.utoronto.ca>.

### Dr. Yunusova featured on NRx newsletter:

Dr. Yana Yunusova’s research on using speech patterns to improve diagnosis of amyotrophic lateral sclerosis (ALS) and fronto-temporal dementia (FTD) was featured in the March 2016 issue of UHN NRx newsletter. The article titled “Neurological Disease: Improving Diagnosis” highlights a recent publication which demonstrates the use of a custom software to detect predominance of ALS and/or FTD symptoms in patients.

Find the complete article @ <http://www.uhnresearch.ca/newsletter/nrx/archive/NRxMarch2016.html>

### U of T Event Sheds Light On Common But Misunderstood Consequences of Stroke



“Dr. Rochon and colleagues, found that although most people reported that they had heard of stroke, only 32% of respondents said that they had heard of aphasia ...”

As part of last summer’s *Speech and Hearing Awareness* month activities, Dr. Rochon and Dr. Martino partnered with OSLA for a public event entitled “A Life with Speech and Swallowing Difficulties after Stroke”. Professor Elizabeth Rochon, commented on the fact that a survey, led by Dr. Rochon and colleagues, found that although most people reported that they had heard of stroke, only 32% of respondents said that they had heard of aphasia and only 6% of the entire sample had even basic knowledge of what aphasia is. She went on to say there is still a great deal of work to be done to raise awareness of aphasia in society. The event was a huge success with 85 people in attendance. The complete story can be found on the Canadian Heart and Stroke website:

<http://www.canadianstroke.ca/en/news/lawyer-faces-personal-trial-when-stroke-leaves-him-unable-to-speak/> story by Tijana Simic.

## Contact

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