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 McMahon 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...
Dr. Jokel received her Master’s in Health Science and a Ph.D. degree in Speech-Language Pathology from 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.

Dr. Jokel has published extensively on language in primary progressive aphasia (PPA) and non-invasive brain stimulation in PPA. She is also working with colleagues at the Rotman Institute and other partner organizations on several projects focused on language function, quality of life and non-invasive brain stimulation in PPA.

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.


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 years 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.
Featured Faculty

Professor Luigi Girolametto

Does coaching with video feedback make a difference to learning? Funded by SSHRC, four U of T investigators set out to research this question. Luigi Girolametto, Janette Pelletier, Elaine Weitzman, 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 Namaisivayam 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


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, 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.


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


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, 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, 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, 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.

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, 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.


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, 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., 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): Namasiyayam, A. M., Barbon, C. E. A., 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, 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.


**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 simulation 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 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)


Selected Publications


Jed Meltzer (Principal Investigator)
Effects of Noninvasive Brain Stimulation on pathological perileisional 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)

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)


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)


Publications cont

Steele, C. M. (2016, in press). *The videofluoroscopic swallow evaluation*. In D. Suiter & M. Gosa (Eds.), *Dysphagic Diagnosis and Treatment in Children and Adults*. Thieme Medical Publications


Pouplier, M. & Van Lieshout, P. Frontiers and challenges in speech error research: A gestural perspective on speech errors in typical and disordered populations (Chapter 11).


Cheyne, D., Alves, N., Ferrari, P., Chau, T., & Van Lieshout, P.


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.*

In the News

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.

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, MHSc
“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.

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