

## **KULPREET CHEEMA**

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### **EDUCATION**

- **PhD, Neuroscience** **2018- Present**  
Neuroscience and Mental Health Institute, University of Alberta  
Supervisors: Dr. Jacqueline Cummine and Dr. Bill Hodgetts
- **MSc, Rehabilitation Science** **2016- 2018**  
Rehabilitation Medicine, University of Alberta  
Supervisor: Dr. Jacqueline Cummine
- **BSc, Psychology and Biology** **2011- 2015**  
Faculty of Science, University of Alberta

### **WORK EXPERIENCE**

- **Graduate Research Assistant, Cognitive Linguistics Neuroscience Lab, Department of Communication Sciences and Disorders at U of A** **January 2016- Present**  
I am in charge of designing and conducting behavioural and fMRI experiments. During my MSc, I designed an fMRI experiment to characterize brain's functional networks during spelling retrieval and generation. I also train graduate and undergraduate students on various skills like experimental design, data collection and computer programming.
- **Award recipient, Centre for Teaching and Learning (CTL) Summer Student Award** **May 2018- August 2018**  
I won the award to work with Dr. Jacqueline Cummine to create learning objectives for the REHAB 699 (Advanced Univariate Statistics) course. It involved revising and creating tools and resources to improve the learning experiences of students.
- **Graduate Research Assistant, Child Language and Literacy Lab, Department of Communication Sciences and Disorders, University of Alberta** **May 2018- September 2018**  
I worked on recruiting and conducting experiments with pre-school children on a project that looked at the relationship between executive functioning and early literacy acquisition.

## **PUBLICATIONS AND CONFERENCE ACTIVITIES**

### *Publications*

- **Cheema, K., & Cummine, J. (2018).** The Relationship between White Matter and Reading Acquisition, Refinement and Maintenance. *Developmental Neuroscience*.
- Cummine, J., Aalto, D., Ostevik, A., **Cheema, K. & Hodgetts, W. (2018)** “To name or not to name: That is the question”: The role of response inhibition in reading. *Journal of Psycholinguistic Research*.
- **Cheema, K., Lantz, N. & Cummine, J. (2017).** Exploring the role of subcortical structures in developmental reading impairments: Evidence for subgroups differentiated by caudate activity. *Neuroreport*.
- Rollans, C., Georgiou, G., **Cheema, K. & Cummine, J. (2017)** Pathways of the inferior frontal occipital fasciculus in overt speech and reading. *Neuroscience*. 364, 93-106.

### *Oral Presentations*

- **Cheema, K., Hodgetts, B. & Cummine, J. (July, 2019).** Resting-state brain connectivity in individuals with dyslexia. Oral presentation at Society for the Scientific Study of Reading, Toronto, Canada.
- **Cheema, K., Hodgetts, B. & Cummine, J. (March, 2018).** Investigating the neural circuitry of spelling in dyslexia: A functional connectivity approach. Oral presentation at NMHI Research Day, Edmonton, Alberta
- **Cheema, K. & Cummine, J. (March, 2017).** The Relationship Between White Matter and Reading Acquisition, Refinement and Maintenance. Oral presentation at NMHI Research Day, Edmonton, Alberta.

### *Poster Presentations (Three most-recent presentations)*

- **Cheema, K., Shafer, A.T., Bahktiari, R., Moore, M., Dolcos, F. & Singhal, J. (October, 2019).** Individual differences in emotion and cognitive processing are related to spontaneous neural connectivity of prefrontal regions. Poster presentation at Society for Neuroscience Conference, Chicago, United States of America.
- **Cheema, K., Hodgetts, B. & Cummine, J. (March, 2019).** Relationship between functional connectivity and spelling behaviour in individuals with dyslexia. Poster presentation at NMHI Research Day, Edmonton, Alberta.
- **Cheema, K., & Cummine, J. (September, 2018).** Behavioral Mechanisms of Spelling Errors in Adults with Dyslexia. Poster presentation at Mental Lexicon Conference, Edmonton, Canada.

### *Invited Guest Lectures*

- Neuroscience in Neuroimaging: Applications to Language. Guest lecture in Biomedical Engineering 510: Neuroimaging in Neuroscience, Edmonton, Alberta (November, 2019)

- Basic Concepts of Statistics. Guest lecture in for CSD 501: Clinical Research Methods, Edmonton, Alberta. (September, 2018)
- Applications of Neuroimaging to Language. Guest lecture in Biomedical Engineering 510: Neuroimaging in Neuroscience, Edmonton, Alberta (November, 2016)
- Cognitive Neuroscience of Reading. Guest lecture in Psychology 323: Infant and Child Development, Edmonton, Alberta. (May, 2016).

## **VOLUNTEER EXPERIENCES**

- **Peer Reviewer, Spectrum & Eureka** **September 2018- Present**  
I peer review publications submitted by undergraduate students to the undergraduate journals of Spectrum and Eureka.
- **Presenter, Let's Talk Science** **January 2016- Present**  
I present on science-related topics to elementary and secondary school students. The primary aim is to increase children's awareness in science and spark their interest of science and STEM careers from a young age.
- **Judge, Edmonton Regional Science Fair** **April 2019**  
I helped judge elementary student's projects for the Edmonton Regional Science Fair.
- **Communication partner, Brain Care center** **April 2018**  
I served as a communication partner to clients with expressive aphasia to help them learn effective communication strategies to use in a real world setting.
- **Conversation partner, The Institute for Stuttering Treatment and Research (ISTAR)** **2013-2019**  
I acted as a conversation partner for adults and children who are undergoing treatment for stuttering during the intensive and refresher clinics. I also helped out with the administrative work in the office as needed.
- **Classroom assistant, Tevie Miller Heritage School** **February 2017- June 2017**  
Every week, I closely worked with students in grades 1 and 2 and the classroom team (which included a teacher, Speech Language Pathologist, and Educational Assistant) for 5 hours. I worked one-on-one with students who needed help with language and communication skills. Other duties included leading literacy centers and helping the team with preparing class material.
- **Classroom Assistant, ABC Head Start** **September 2014- June 2015**  
I worked with preschool children every week for 4 hours. I was in charge of organizing activities with children that can foster their cognitive development. I tailored play activities to meet the language and communication needs of children.

- Presenter, Discovery Day in Health Sciences** **October 2016**  
 I conducted a group seminar with secondary school students on the topic of white matter connections in brain and a hands on activity involving extracting one of the white matter connections from MRI images.
- Campus Ambassador, Women in Scholarship, Engineering, Science & Technology** **February, 2016**  
 I served as a campus ambassador for Choices Conference, where I assisted with escorting groups of students to various activity locations and acted as key points of contact for students.
- Presenter, The Injury Prevention Centre** **February, 2016**  
 I lead a one-day workshop for elementary school students on Brain Waves day. Topics included brain structure, what are concussions and the ways that children can prevent concussions and promote brain health.

### **FUNDING/SCHOLARSHIPS**

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| • NSERC Postgraduate Scholarship- Doctoral Program            | 2019-2022 |
| • Walter H. Johns Graduate Fellowship                         | 2018      |
| • Alexander Graham Bell Canada Graduate Scholarship-Master's  | 2018      |
| • Centre for Teaching and Learning (CTL) Summer Student Award | 2018      |
| • Faculty of Rehabilitation Medicine Travel Award             | 2017      |
| • Graduate Student's Association Travel Award                 | 2017      |
| • Society of Neurobiology for Language Travel Award           | 2017      |
| • Queen Elizabeth-II Graduate Scholarship                     | 2017      |
| • Al Cook Graduate Scholarship in Rehabilitation Science      | 2017      |
| • GSA Student Research Assistant Award                        | 2017      |
| • Alberta Graduate Student Scholarship                        | 2017      |
| • Siobhan Isabella Reid Scholarship                           | 2016      |
| • University of Alberta Graduate Research Assistantship Award | 2016      |
| • Jason Lang Scholarship                                      | 2015      |
| • ESCO Canada Scholarship                                     | 2013-2015 |
| • Alexander Rutherford Scholarship                            | 2011      |
| • Strathcona Rotary Scholarship                               | 2011      |