Welcome to the second edition of our Newsletter.
Here is a brief description of some highlights from the Centre.

CONGRATULATIONS!

Dr. Pedro Rosa-Neto, MD, PhD, Neurologist, Centre's New Director. We are delighted to inform you that Dr. Pedro Rosa-Neto is officially the new Director of the McGill University Research Centre for Studies in Aging (MCSA) as of April 1, 2017.

Dr. Rosa-Neto is an associate professor of Neurology, Neurosurgery and Psychiatry at McGill University, affiliated to the Douglas Research Centre. He is a clinical neurologist with expertise in quantification of brain function using imaging techniques, in particular Positron Emission Tomography (PET).

Dr. Rosa-Neto's research interests focus on imaging biomarkers for neurodegenerative diseases. He directs the laboratory for translational neuroimaging, which aims to use imaging techniques to advance the diagnosis of Alzheimer's disease to a preclinical stage. Dr. Rosa-Neto research is funded by Alzheimer's Association USA (Alzheimer's Association Young Investigator), Canadian Institutes of Health Research (CIHR), Weston Brain Institute, Canadian Consortium on Neurodegeneration in Aging (CCNA-CIHR) and Nussia & André Aisenstadt Foundation. Dr. Rosa-Neto also conducts research on new treatments to prevent and treat dementia symptoms at the McGill Alzheimer's Disease Research Unit/ Memory Clinic.

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On June 8, 2017, MCSA held its Annual Donor/Affiliated Member event to thank all of the Donors for their generosity and support. The event was greatly appreciated by the patients and families of the Centre.

String Quartet at the MCSA Donor Event June 8, 2017. Bryanna Pilkington, Sandrine Ladouceur, Shanon Wilson, and Violet Fortress.

Dr. David H. Eidelman MD,CM FRCPC FACP, Dean of Faculty of Medicine, attended June 8, 2017 event, met with Centre's Directors and MCSA Research Lab Students.

At the London AAIC July 15th-20th, Centre graduate students and researchers had more than 20 posters and platform presentations, summarizing the findings from research in animal models, healthy people and persons with various stages of cognitive decline. The
expertise of our Centre in tau brain imaging was highlighted by other researchers.

**MCSA SPOTLIGHT**

Meet the Research Students from the Translational Neuroimaging Laboratory.

Dr. Pedro Rosa-Neto directs the Translational Neuroimaging Laboratory (TNL), a multi-site facility, which is shared between the Douglas Institute, the McGill University Research Centre for Studies in Aging and the Montreal Neurological Institute. This cross-intuitional lab, a first for Quebec, will link animal studies with human conditions, and help identify early markers of disease. The Laboratory is a unique working environment where undergraduate, graduate, Post-Doc’s, PhD and Master students have the opportunity to expand their knowledge, nurture their educational growth, develop current techniques and have a hands on experience.

**Monica Shin, MSc. at McGill University**

I started as a research assistant, under the supervision of Dr. Pedro Rosa-Neto after completing my biochemistry degree at McGill University. After a year of work, I decided to pursue a Master’s degree in neuroscience.

Currently I am a research coordinator, working on research involving PET and MRI imaging to look at the functional and structural changes in patients with Alzheimer’s disease (AD). We focus on looking at signature proteins of AD such as amyloid and tau, and we are in the process of characterizing the patterns of neuroinflammation and epistasis during the disease progression. With the findings, we hope to broaden the understanding of the biomarkers of AD along with their association with cognitive performance.

For any students looking for a volunteer experience or a position at a research lab, I highly recommend this Centre. I could not have asked for a better lab to be a part of other than MCSA and both Dr. Rosa-Neto and Dr. Gauthier are amazing supervisors.

**Joseph Therriault, MSc. McGill University**

I joined MCSA in September of 2016, when I began my master’s degree in Neuroscience at McGill University. I am working on a phenomenon called Anosognosia – this is when someone is not aware that they have an illness. Sometimes this phenomenon is present before the full development of Alzheimer’s disease and it can be a barrier for people to seek medical attention. I am also working on the development of tools to accurately measure misfolded proteins in the brain that cause dementia. I am thrilled to be working at MCSA and to be part of a great team that does cutting-edge research. We are also particularly lucky to be working with Dr. Rosa-Neto and Dr. Gauthier, both experts in the field who also make the MCSA a lot of fun.

**Sulantha Mathotaarachchi, MSc., McGill University**

I am currently developing improved algorithms for automatic segmentation of white matter lesions in the brain.

**Tharick Ali Pascoal, M.D, Neurologist**

I am a PhD candidate at McGill University and I am currently working with the earliest clinical manifestations, metabolic and morphologic abnormalities underlying Alzheimer’s Disease pathophysiology. I am especially interested in models to predict disease progression using the interface between amyloid pathology and neurodegeneration in two different cohorts (ADNI and PREVENT-AD study).

**Dorothee Schoemaker**

I’m a PhD student in Clinical Psychology at McGill University. My doctoral program includes both a clinical and research training. My clinical training focuses on neuropsychology, which concentrates on relationships between brain and behaviors. My research work aims to obtain a better understanding of early cognitive manifestations of Alzheimer’s Disease in the aging population, to favor an earlier and more precise detection of this disease. I’m also using neuroimaging techniques, such as magnetic resonance imaging (MRI), to link cognitive changes with the structural and functional integrity of brain regions affected in the course of Alzheimer’s Disease. I joined the MCSA over 7 years ago, where I first worked under the supervision of Dr. Pedro Rosa-Neto. I’m currently doing my PhD under the co-supervision of Dr. Jens Pruessner, former director of the MCSA, and Dr. Serge Gauthier. Due to its expertise in the field, the MCSA is the ideal environment to learn about the different neurodegenerative diseases associated with age. The MCSA regroups expert researchers and students from different backgrounds, which provides a great opportunity to exchange ideas and perspectives. I’m convinced that my learning has been enriched by the academic and clinical environments offered at the MCSA.
Min Su (Peter) Kang

I am a Ph.D. candidate at McGill University and currently working on the development of translational neuroscience framework, in which investigates the effects of amyloidosis in Alzheimer’s Disease (AD) spectrum using multimodal imaging techniques and fluid biomarkers.

I am utilizing Positron Emission Topography (PET), Magnetic Resonance Imaging (MRI), Cerebrospinal fluid (CSF), and plasma to characterize the relationship between amyloidosis and various pathophysiological processes observed in AD spectrum using McGill-R-Thy1-APP transgenic rat model and Alzheimer’s Disease Neuroimaging Initiative (ADNI) database.

Meghmik Aghourian-Namagerdy

I am a Ph.D/Psy.D student from UQAM under the supervision of Marc-André Bédard, PhD, who is collaborating with the Translational Neuroimaging Laboratory. My primary focus is on imaging cholinergic depletion and Alzheimer’s disease with the [18F] FEOBV radioligand, to help improve AD diagnosis.

Hanne Struyfs

I am a Belgium PhD student at the University of Antwerp. From January to June 2017 I was a visiting scholar at the TNL Laboratory at MCSA. During the past four years I have been working on novel biomarkers to detect brain damage in Alzheimer’s Disease. A final piece of work would be to thoroughly validate the currently existing markers on a large study population. My research visit at the MCSA allowed me to achieve that goal, because of their access to large datasets, extensive statistical knowledge and profound experience in imaging biomarkers.

The researchers and staff of MCSA were very motivated, hard-working and knowledgeable. On top of that, they were very willing to share their knowledge with me, making my research stay invaluable! What a profound experience! Besides the inspiring environment, the friendly atmosphere was also very striking. Everyone at the MCSA was friendly, engaging, and considerate. The MCSA is a family, which made me feel very much at home. This family is run by Dr. Pedro Rosa-Neto and Dr. Serge Gauthier, two amazing leaders who bring out the best in everyone working at the MCSA.

Kely Quispialaya

I obtained my medical degree from the Los Andes University, in Peru. I joined the MCSA Team in June 2016 during my internship as a clinical research assistant from McGill University. Presently, I am working as a research assistant collaborating with the Translational Neuroimaging Laboratory at MCSA.

Laurie-Anne Dion, PhD/PsyD

Neuropsychologist

I finished my PhD in neuropsychology in June 2017 at the University of Quebec in Montreal. I have both clinical and research background. I have been collaborating with the McGill University Research Centre for Studies in Aging since January 2016. I participated on different projects by developing and administrating cognitive test batteries for patients suffering from neurodegenerative disorders. The research center is a dynamic environment where professionals and students never hesitate to help each other. Both Dr. Rosa-Neto and Dr. Gauthier are good examples why their employees are devoted to research on aging. They show care and kindness to their patients and transcend their roles as Neuropsychologists. I intend to collaborate with this wonderful team in the future.

Haseeb Khan

B.Sc Psychology & Neuroscience, McGill University, B. Comm. Management at JMSB-Concordia and completing a B.Sc. (N) Nursing at McGill. I joined MCSA in 2014. My Research Assistant role at the MCSA has evolved around the clinical aspects of dementia. From scanning, to neuropsychological testing, the MCSA has given me the opportunity to work with unique patients and their families. Currently I am a coordinator and examiner for a nationwide research project aimed at studying neurodegenerative diseases. What has struck me the most about MCSA is the cohesion between all the members, and the ability of each one of us to showcase our strengths. Our supervisors are the foundation of this lab because it is with their dedication, passion and support that we are able to thrive. They challenge us; make us ask questions in order to improve not only our research but ourselves.

Mira Chamoun

My name is Mira Chamoun, I have a Ph.D in vision neurosciences and psychophysics from the Université de Montréal. I have recently started as a postdoctoral fellow at the McGill University Research Centre for Studies in Aging (MCSA). I’ll be working on projects axed on the studying of psychological and biological markers associated with normal healthy aging and Alzheimer’s disease.

Sophie Levasseur

I am an undergraduate student in Neuroscience at Concordia University.

Firoza Lussier

I am a B. Sc. undergraduate student at McGill University. In the fall, I will be entering the second year of my Neuroscience Major with a focus in
Neurophysiology and Neural Computation, and I am also in the process of completing a minor in Computer Science.

I joined the MCSA Team in January 2017 as an undergraduate research assistant. I am currently working closely with Dr. Pedro Rosa-Neto and others, assisting in the completion of a large brain imaging study on Alzheimer’s disease which aims to track the pathologies of different proteins involved in the disease in various groups of people.

Through my time here, I’ve gained very valuable experience that will help me in the rest of my studies and beyond. I couldn’t be happier to have contributed towards such amazing work and to have met so many wonderful and hard-working people here at the MCSA!

2016-2017 INTERNATIONAL VISITING SCHOLARS AT MCSA

Dr. Maowen Ba, M.D, PhD, Neurologist

Dr. Maowen Ba is currently an associate professor of neurologist in Yantai Yuhuangding Hospital affiliated to Qingdao medical university. At the MCSA, under the supervision of Professor Serge Gauthier, he conducts his clinical studies focusing on Alzheimer’s disease biomarkers for predicting the disease progression, as estimated by MRI techniques, PET techniques.

Dr. Xiaofeng Li, MD, PhD, Neurologist

Dr. Xiaofeng Li is a Chinese Neurologist and assistant professor from department of neurology, the second affiliated hospital of Chongqing Medical University, China. Her clinical research interest focuses on early diagnosis and differential diagnosis of Alzheimer’s disease. She did a one year research fellowship (2016.05-2017.05), financially supported by Chongqing Medical University.

Dr. Kok Pin Ng, MRCP, Neurologist

Dr. Kok Pin is a Neurologist from the National Neuroscience Institute, Singapore. He is a visiting scholar, under the National Medical Research Council (NMRC) research training fellowship award. He is currently investigating the role of tau PET imaging in Alzheimer’s disease.

"Coming together is a beginning, staying together is progress, and working together is success." - Henry Ford

Alzheimer Disease Research Unit Director Dr. Serge Gauthier and Dr. Rosa-Neto utilize the best clinical practices and cutting-edge technologies for diagnosis of medical conditions associated with memory problems. The Memory Clinic is actively involved in cognitive research and is recognized internationally as a Clinical Trial Site. Clinical trials (Phase II-IV) that test the efficacy and safety of experimental drugs for AD and other cognitive disorders are ongoing. Presently MCSA is recruiting participants for 4 different studies. To participate/or/for information please call or contact Tamar Tatigian at 514-766-2010 or email: tamar.tatigian@mcgill.ca

MCXA ACTIVITIES

Last year on Sunday September 25, 2016 “Team MCSA” participated for the 7th time and joined the Montreal Marathon Oasis. This incentive is part of our organization’s fundraising efforts. The event is a team effort where staff, students, donors, and public lecture participants get involved and make a commitment toward their health and well-being. Join us this year to walk or run the 5KM on Saturday, September 23 or the 10KM, 21KM, 42.2KM on Sunday, September 24, 2017. If you are interested please contact Silvana Aguzzi at 514-761-6131 x6314 before August 11, 2017.

Contact us to find out about our new event that will be held on:

Friday, September 15, 2017 “Journée Santé - Health Day”
Open House at MCSA.

If you are interested please contact us at 514-766-2010 or send an email to silvana.aguzzi@mcgill.ca.

www.aging.mcgill.ca
www.tnl.mcgill.ca