

NEWSLETTER

Wednesday September 2nd, 2015

Message from the Scientific Director

This last month was important for the advancement of the CIHR Dementia Research Strategy, both nationally and internationally. On July 18-23 in Washington, the Institute was very active at the Alzheimer Association International Conference. Working collaboratively with other Canadian initiatives, Canada was very visible as nine organizations shared a common space in the Exhibit Hall, forming a large “Canadian Pavillion” space.

Thanks to our partners: Alzheimer Society of Canada, Canadian Longitudinal Study on Aging (CLSA), Canadian Consortium on Neurodegeneration in Aging, Consortium pour l'Identification précoce de la Maladie d'Alzheimer – Québec, CANAD (Canadian fundamental research to improve treatment and finding a cure for Alzheimer’s disease), Consortium of Canadian Centres for Clinical Cognitive Research (C5R), and Alzheimer TV, as well as the CIHR Institute of Neurosciences, Mental Health and Addiction.

The Institute hosted a breakfast meeting in order to provide information on Canada’s initiatives in research on dementia within a global context. Over 100 participants attended this meeting, including such distinguished attendees as Dr. Ron Petersen (US NAPA), Marc Wortmann (ADI) and

John McCallum (Australia). The PowerPoint slides will be available at <https://goo.gl/Pa7Hd7> until September 30, 2015. In addition, the institute also organized, in partnership with three of our Canadian exhibit partners (Alzheimer Society of Canada, CLSA and C5R), a networking reception for the Canadian participants.

I also attended a reception at the Canadian Embassy. This event highlighted a fantastic example of academic-industry partnership, celebrating Dr. Cashman’s success (see Brightest Minds section of this newsletter).

Current funding opportunities:

- [Team Grant - Canadian Traumatic Brain Injury Consortium](#)
- [Operating Grant - Canadian DOHaD Cohort Registry](#)
- [Doctoral Research Award - Fall 2015 Priority Announcement \(Specific Research Areas\)](#)
- [Catalyst Grant - COEN Initiative](#)
- [SPOR Networks in Chronic Disease](#)
- [Healthy and Productive Work – Partnership Development Grants](#)
- [Programmatic Grants in Environments, Genes and Chronic Disease](#)

Events :

Webinar for students in health research

Students in health research and university staff are invited to an online information session to learn about CIHR student awards programs, funding opportunities and how to apply. Sessions are planned between September 8-10.

[Register online](#)

Free TVN Webinars

[Wednesday, September 9 at 12 noon ET](#) -- **Rehabilitation for the frail elderly: models of care and quality indicators** (Final results of TVN Knowledge Synthesis Grant) -- **Lora Giangregorio**, PhD, and Caitlin McArthur, MScPT, PhD student, University of Waterloo

[Wednesday, September 16 at 12 noon ET](#) -- **Assessing quality-of-life measures for elderly traumatic brain injury survivors: a systemic review** (Final results of TVN Knowledge Synthesis Grant) -- **Donna Ouchterlony**, MD, FCFP, St. Michael's Hospital

The science of Alzheimer's: where are we going?

September 22, 2015 from 6:30 pm to 8 pm EDT

McMaster Innovation Park, 175 Longwood Road South, Hamilton, ON

5:45 pm – Refreshments and info session

8:00 pm – Book signing by Jay Ingram “The End of Memory: A Natural History of Aging and Alzheimer’s” (available for purchase at the event)

Join online via live web stream at <http://bit.ly/MHFlive>

3rd Annual TVN Conference on improving care for frail elderly Canadians

September 27-29, 2015

Sheraton Centre Hotel, Toronto, Ontario

[Click here for more information](#)

SPECIAL EVENT: Play – “Cracked: New Light on Dementia”

Cracked is an innovative research-based play that follows persons with dementia and their families on their unique journeys with dementia, from diagnosis to their new lives in long-term care. The families struggle to see beyond the disease as they come to accept that each of us has cracks as part of being human.

September 29th, 2015, 6:00 – 8:00 pm

St. Elias Centre – 750 Ridgewood Avenue, Ottawa, Ontario

[Register online](#)

The 8th Canadian Conference on Dementia

October 1st – 3rd, 2015

The Westin Hotel, Ottawa, Ontario

www.canadianconferenceondementia.com

CAG2015: From Possibility to Practice in Aging: Shaping a Future for All

Canadian Association on Gerontology 44th Annual Scientific and Educational Meeting

October 23-25, 2015 in Calgary, Alberta <http://CAG2015.ca>

News

- Become a [Dementia Friend](#) in three easy steps
- [PubMed Central Canada](#) (PMC Canada) is back online
- The government of Nova Scotia has launched its first-ever dementia strategy, [Towards Understanding](#).
- News Release: [Canada's largest ever study on aging reaches recruitment goal of 50,000 participants](#)
- Interview with Dr. Yves Joannette (International Innovation) : [Speaking of Ageing](#)

Brightest Minds

Dr. Neil Cashman is a neurologist-neuroscientist working in neurodegeneration and neuroimmunology at University of British Columbia. Through the CCNA, he leads a team working on [protein misfolding](#).

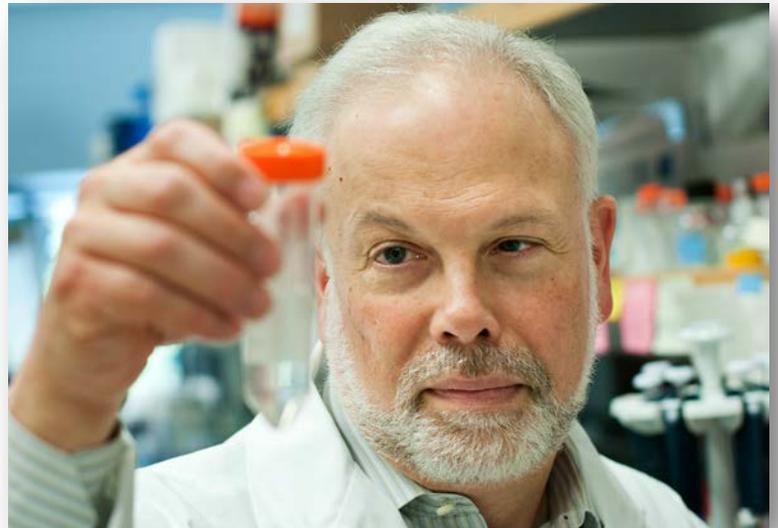
Discovery: Diagnostic and Therapeutic Target for Alzheimer's disease, licensed by Emergent BioSolutions

Dr. Neil Cashman and his team have discovered a target that has diagnostic and therapeutic significance for Alzheimer's Disease (AD), Amyotrophic Lateral Sclerosis (ALS), and Parkinson's disease.

Their discovery arose from over 20 years of dedication to understanding how and why proteins "misfold" within the human body, and developing targeted solutions to stop the spread. As the fundamental component of all living cells, proteins are made up of long chains of amino acids, which fold around each other in a specific three-dimensional structure to allow cell functioning. Over time, Cashman and his team realized that when a protein misfolds, the cell can no longer function properly, it can cause disease within surrounding cells, and can even "seed" – i.e. trigger the misfolding of other proteins. A tragic domino effect, this process can result in diseases like Parkinson's, AD, and ALS, and will continue until a therapeutic intervention is discovered.

The good news is that this is precisely where immunotherapy is gaining traction, Cashman explains. He and his team have found a target for amyloid-beta (A β) oligomers. Because these are the proteins found in brain plaques in cases of AD and they are toxic to nerve cells, these oligomers were selected by the team.

The results are incredible. "The antibodies we developed bound to synthetic and authentic oligomers in an AD brain in a surface plasmon resonance (SPR) test, the antibodies can block the toxicity, and can even stop the seeding activity of A β oligomers."



Dr. Neil Cashman

This antibody and the corresponding [epitope](#) were licensed out of University of British Columbia by Canadian biotech company, Cangene Corporation (which was acquired by Emergent BioSolutions last year). Cashman's team was then able to complete the animal experiments, and discovered that "the vaccination of Alzheimer's mice is protective of the spread of Alzheimer's pathology, A β plaques, and certain types of memory loss in a specific model of Alzheimer's disease."

More recently, and based on these findings, **Cashman's team and Emergent BioSolutions have validated this target for human Alzheimer's disease, and see promise that this epitope could lead to a vaccine that would prevent or delay its onset.**

[The Canadian Consortium on Neurodegeneration in Aging](#) will play a key role in advancing this work to human trials. Despite the fact that the vaccine's availability will likely be a decade down the road, it's, in Cashman's words, "a very exciting prospect and discovery now."

To read the full article click on the link: <http://ccna-ccnv.ca/en/2015/07/17/discovery-diagnostic-and-therapeutic-target-for-human-alzheimers-disease-licensed-by-emergent-biosolutions/>