The CIHR International Collaborative Research Strategy for Alzheimer Disease
Some Facts...

Now

Within a Generation

500,000

1,100,000

Canadians with Alzheimer’s disease or a related dementia

$15 billion

$153 billion

Cost to Canadians for dementia care

231 million hours

756 million hours

The time Canadians will be providing in informal care

Rising Tide: The Impact of Dementia in Canada, ASC, 2010
A Favourable International Context

January 2012
NAPA (USA)

February 2012
JPND (Europe)

March 2012
WHO

National Plan to Address Alzheimer’s Disease

JPND Research Strategy
Tackling the challenge of Alzheimer’s and other neurodegenerative diseases in Europe
Executive Summary

DEMENTIA
A PUBLIC HEALTH PRIORITY
The International Collaborative Research Strategy for Alzheimer’s Disease

- Is one of CIHR’s Roadmap Signature Initiatives
- Covers Alzheimer’s Disease and related neurodegenerative disorders
- Focuses on two complementary objectives
  - Strengthen the Canadian innovative and collaborative research efforts on neurodegenerative diseases
  - Support international leadership and the insertion of Canadian research in international collaboration
- Timely given the international context (NAPA, JPND, WHO)
- Is advised by a CIHR Inter-Institute Advisory Group
  - IA and INMHA IAB members
The General Concept

Canadian Component

- Collaborating with Asia
  - China (NSFC)

- Collaborating with USA
  - ADNI-2

International Component

- Strengthening Canadian Research on AD
  - Supporting innovative research conducted through collaborating expert cores

- Collaborating with European Union
  - Canada-France-Québec COEN/JPND
The General Concept

Collaborating with Asia 
China (NSFC)

Collaborating with USA 
ADNI-2

Collaborating with European Union 
Canada-France-Québec 
COEN/JPND

Strengthening Canadian Research on AD 
• Supporting innovative research conducted through collaborating expert cores
ICRSAD is contributing a total of $500,000 to the Cambridge Bristol Toronto Hamburg Neurodegenerative Disease Consortium for a project on the mechanisms of neurotoxicity of amyloid aggregates, led by Prof. Peter St George-Hyslop, Universities of Toronto and Cambridge.

With many contributors, being Wellcome Trust the major funder in this initiative.
Le Fonds de la recherche en santé du Québec (FRSQ), l’Institut national de la santé et de la recherche médicale de la France (Inserm) et les Instituts de recherche en santé du Canada (IRSC) ont signé le 4 juillet 2008 une entente de collaboration pour accélérer la recherche sur la maladie d’Alzheimer. On retrouve à la première rangée : M. Thierry Damerval, directeur-général adjoint de l’Inserm, Mme Marielle Gascon-Barré, présidente-directrice générale par intérim du FRSQ et M. Alain Beaudet, président des IRSC. À la deuxième rangée, on retrouve M. François Fillon, premier ministre de la France et M. Jean Charest, premier ministre du Québec.

4 juillet 2008
European Union

Centres of Excellence in Neurodegeneration Research (COEN)
Standards for determining the vascular contribution to neurodegeneration
Joanna Wardlaw (MRC), Martin Dichgans (DZNE), Eric Smith (CIHR)

Integrated approach to identify novel genes for frontotemporal lobar degeneration
Marc Cruts (VIB), Christian Haass (DZNE), Dieter Edbauer (DZNE)

Mitochondrial dysfunction and susceptibility to Parkinson’s disease: New models of pathogenetic interactions
Donato A. Di Monte (DZNE), David S. Park (CIHR), Fabio Blandini (MDS), Anthony H.V. Schapira (MRC)

Early synaptic plasticity and network dysfunction in transgenic (tg) rat models of Alzheimer’s disease (AD)
Michael Rowan (HRB/SFI), Claudio Cuello (CIHR), Martin Fuhrmann (DZNE)

Immune subtype in Parkinson disease
Thomas Gasser (DZNE), Antonio P. Strafella (CIHR)

C. elegans models of mitochondrial deficiency in the nervous system
Daniele Bano (DZNE), Siegfried Hekimi (CIHR), Mario de Bono (MRC)

The GENetic Frontotemporal Dementia Initiative (GENFI): a new multi-centre platform
for the study of frontotemporal lobar degeneration
Martin Rossor (MRC), Giovanni B. Frisoni (MDS), Torik Ayoubi (VIB), Mario Masellis (CIHR)

Identification of generic suppressors of proteinopathies
David Rubinsztein (MRC), Joerg Gsponer (CIHR)
China-Canada Team Grants (NSFC-CIHR)

Round 1:
2010–11 CIHR-National Science Foundation of China Teams
• Joint RFA focused on common interests: Early detection, treatment, Prevention of AD and related diseases, Animal models, Biomarkers and imaging, genetics/epigenetics, Drug development, Vascular disease and clinical studies
• Three projects funded

Round 2:
• Re-launch to support an additional two grants in 2012-2013
  • Animal Models
  • Brain Imaging and Biomarkers
  • Drug Development
  • Vascular Dementia
  • Clinical Studies
ADNI-2 is a NIA-initiated international effort to standardize neuroimaging in ADRD, along with biological and clinical data.

**Phase 1 - Integrating Canadian Centers in ADNI-2**
- Supporting 5 Canadian Centers in North-American ADNI-2
  - 300 000 $ per year for 5 years to 5 Canadian ADNI Centers
  - CIHR participation in the ADNI-2 Executive Committee as well as the Private Partner Scientific Board

**Phase 2 – Supporting collaborative research on ADNI Data**
- First program internationally to support the use of ADNI data bases
- Secondary analysis and methodological research
- $700 k/y over 5 years
<table>
<thead>
<tr>
<th>Year</th>
<th>Program</th>
<th># teams funded</th>
<th>CIHR ($)</th>
<th>Total ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Wellcome Trust Neurodegeneration Program</td>
<td>1</td>
<td>500K</td>
<td>7.34M</td>
</tr>
<tr>
<td>2009</td>
<td>Team Grant: Alzheimer’s Disease (France-Quebec-Canada)</td>
<td>5</td>
<td>1.37M</td>
<td>5.05M</td>
</tr>
<tr>
<td></td>
<td>(Includes Institute commitment)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Centres of Excellence in Neurodegeneration</td>
<td>7</td>
<td>1.22M</td>
<td>5.66M</td>
</tr>
<tr>
<td>2011</td>
<td>Canada-China Team Grants in Alzheimer’s Disease and Related Disorders</td>
<td>3</td>
<td>2.98M</td>
<td>4.30M</td>
</tr>
<tr>
<td>2012</td>
<td>ADNI Canadian Centers</td>
<td>5</td>
<td>1.5M</td>
<td>3.00M</td>
</tr>
<tr>
<td></td>
<td>ADNI Secondary and Methodological Analyses</td>
<td>30</td>
<td>3.5M</td>
<td>3.5M</td>
</tr>
<tr>
<td>2012</td>
<td>Canada-China Round 2</td>
<td>2</td>
<td>2.00M</td>
<td>2.89M</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>53</strong></td>
<td><strong>13.07M</strong></td>
<td><strong>31.74M</strong></td>
</tr>
</tbody>
</table>
CCNA
The Canadian Consortium on Neurodegeneration in Aging

The need for CCNA
To support an integrated strategically-oriented consortium on Alzheimer’s and related disorders in order to
• Strengthen and synergize Canadian innovative and collaborative research to face the challenge
• Become the Canadian landing strip for international collaborations
• Reinforce the international positioning and the impact at the global level
ICRSAD Goals
International Collaborative Research Strategy for Alzheimer’s Disease

1. Primary prevention
2. Secondary prevention
3. Quality Of life
CCNA – Bringing Together Canadian Expertise

Consortium of expert cores
CCNA – Bringing Together Canadian and International expertise

Consortium of expert cores integrated internationally
## CCNA – 5-year Targeted Budget (2013/14-2018/19)

<table>
<thead>
<tr>
<th>Partners</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CIHR</td>
<td>ICRSAD</td>
<td>12.0 M$</td>
</tr>
<tr>
<td>CIHR Institutes</td>
<td></td>
<td>7.0 M$</td>
</tr>
<tr>
<td>Donations</td>
<td>Private doners</td>
<td>25.0 M$</td>
</tr>
<tr>
<td></td>
<td>Matching Brain Canada</td>
<td>10.0 M$</td>
</tr>
<tr>
<td>Foundations/Agencies</td>
<td>Provincial Agencies</td>
<td>7.0 M$</td>
</tr>
<tr>
<td>Charities/Not for profits</td>
<td>All involved in neurodegeneration in aging having an impact on cognition</td>
<td>4.0 M$</td>
</tr>
<tr>
<td>Industry</td>
<td>Minimally 5 partners @ 2,5 M$ each</td>
<td>12.5 M$</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>77.5 M$</td>
</tr>
</tbody>
</table>
Canadian Dementia Knowledge Translation Network

- Education and Training
- Information, education and tools

http://www.lifeandminds.ca/
CCNA: Bringing Together Canadian and International Expertise

Innovative Global Research Effort on Neurodegenerative Diseases in Aging Putting Canada on the Map
INNOVATIVE RESEARCH
COLLABORATION
IMPACT

International Collaborative Research Strategy for Alzheimer’s Disease

Stratégie internationale de recherche concertée sur la maladie d'Alzheimer