

# The CIHR International Collaborative Research Strategy for Alzheimer Disease





## Some Facts.



d'Alzheimer

Within a Generation

1,100,000

Canadians with Alzheimer's disease or a related dementia

Now Within a Generation

\$15 billion

\$15 3 billion

Cost to Canadians for dementia care

Now Within a Generation

7 5 6 million hours

The time Canadians will be providing in informal care



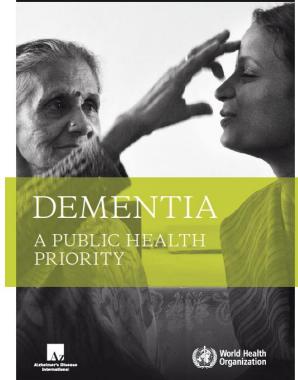


## A Favourable International Context

January 2012 NAPA (USA) February 2012 JPND (Europe) March 2012 WHO

National Plan to Address Alzheimer's Disease













### In a Nutshell



## 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



d'Alzheimer

### Canadian Component

Collaborating with Asia China (NSFC) Strengthening Canadian Research on AD

Supporting innovative research conducted through collaborating expert cores

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

with USA
ADNI-2

International Component





# The General Concept



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Collaborating with Asia China (NSFC)

### Strengthening Canadian Research on AD

Supporting innovative research conducted through collaborating expert cores

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

Collaborating with USA ADNI-2





## UK Neurodegenerative Initiative



d'Alzheimer

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.







Universität Hamburg



With many contributors, being Wellcome Trust the major funder in this initiative





Health Research en santé du Canada



wellcome trust





### France-Canada-Quebec Initiative ICRSAD SIRCMA International Collaborative Stratégie internationale Stratégie internationale



Alzheimer's Disease sur la maladie

Research Strategy for de recherche concertée

#### ENTENTE FRSQ-INSERM-IRSC SUR LA MALADIE D'ALZHEIMER



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.





### European Union



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## Centres of Excellence in Neurodegeneration Research















Gemeinsam Lösungen finden

Finding solutions together

Trouver la solution ensemble

Scoprendo soluzioni insieme

Samen oplossingen vinden

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### European Union



International Collaborative Stratégie internationale Alzheimer's Disease sur la maladie

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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 supressors of proteinopathies David Rubinsztein (MRC), Joerg Gsponer (CIHR)



# China-Canada Team Grants (NSFC-CIHR) ternational Collaborative Research Strategy for Alzheimer's Disease In Indianate and Indianate Indi

#### 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

Competition	201206TAD	
Application Deadline	2012-06-21	
Anticipated Notice of Decision	2012-11-01	
Funding Start Date	2013-01-01	





# USA and International Component finational Collaborative Alzheimer's Disease Sur la maladie USA and International ICRSAD SIRCMA Stratégie internationale de recherche concertée sur la maladie



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





### International Component



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Year	Program	# teams funded	CIHR \$	Total \$
2009	Wellcome Trust Neurodegeneration Program	1	500K	7.34M
2009	Team Grant: Alzheimer's Disease (France-Quebec-Canada)	sease (France- 5 1.37M (Includes Institute co		
2010	Centres of Excellence in Neurodegeneration	7	1.22M	5.66M
2011	Canada-China Team Grants in Alzheimer's Disease and Related Disorders	3	2.98M	4.30M
2012 2012	ADNI Canadian Centers ADNI Secondary and Methodological Analyses	5 30	1.5M 3.5M	3.00M 3.5 M
2012	Canada-China Round 2	2	2.00 M	2.89M
	TOTAL	53	13.07M	31.74M





### Canadian Component



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### **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

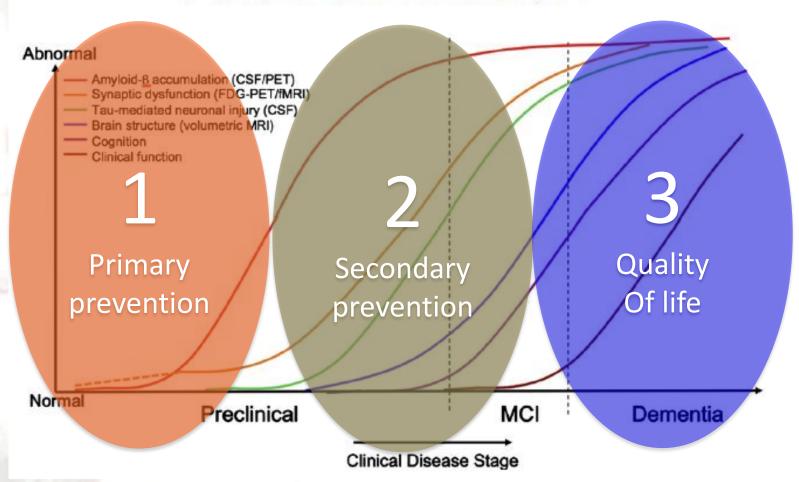




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International Collaborative Stratégie internationale Research Strategy for de recherche concertée

R.A. Sperling et al. / Alzheimer's & Dementia 7 (2011) 280-292







## CCNA – Bringing Together Canadian Expertise

Theme
Primary
Prevention

CCNA

Expert Core 1 Theme
Quality of life

Expert Core 2

Expert Core 1

Expert

Core 3

Expert Core 4

Expert

Core 2

Core 2

Expert

Expert Core 3

Expert Core 1

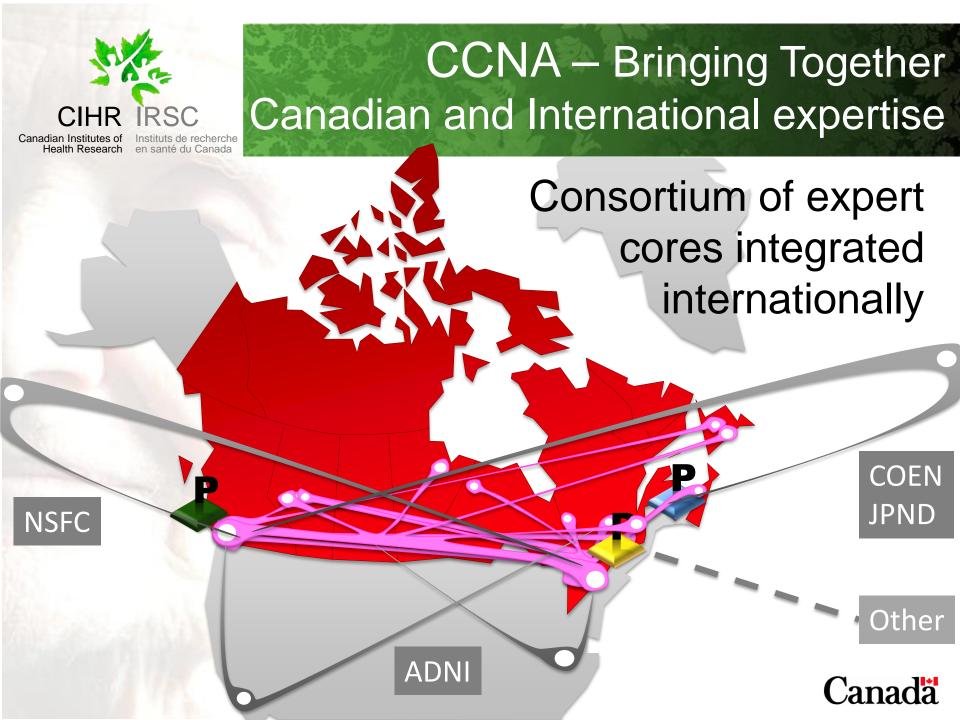
Expert Core 3

Theme
Secondary Prevention

Integrated themes
Capacity building / KT/
Ethics

Canada







## CCNA – 5-year Targeted Budget (2013/14-2018/19)

Partners		
CIHR	ICRSAD	12.0 M\$
	CIHR Institutes	7.0 M\$
Donations	Private doners	25.0 M\$
	Matching Brain Canada	10.0 M\$
Foundations/Agenci es	Provincial Agencies	7.0 M\$
Charities/Not for profits	All involved in neurodegeneration in aging having an impact on cognition	4.0 M\$
Industry	Minimally 5 partners @ 2,5 M\$ each	12.5 M\$
TOTAL		77.5 M\$





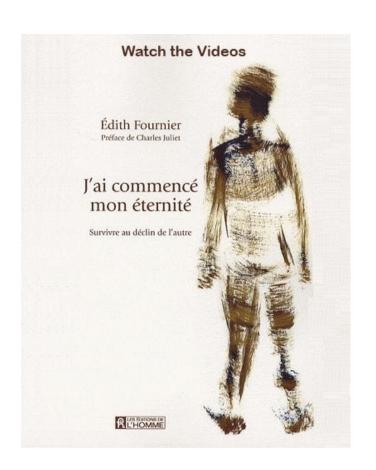
### IA – Current Strategic Initiatives

# 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



