

***Thanks a lot for
your attention***



Global action
against dementia

New Care and Prevention Models
3rd Global Dementia Legacy meeting



Joint Programming in Neurodegenerative Disease Research (JPND)

Coordinating approaches to research across Europe

Prof. Philippe Amouyel, MD, PhD
JPND Chair
Tokyo, November 6th, 2014



What is Joint Programming in Research?

Three pillars

A shared vision : countries **engaging voluntarily and on a variable geometry** basis to tackle a major societal challenge

A management structure : to address as efficiently as possible this societal challenge

A common strategic research agenda : to be defined, developed and implemented



We cannot tackle neurodegenerative diseases by acting as single countries

JPND is the largest global ND research initiative led by countries, with 28 participating

EU member states
Associated countries
Third countries

Increasing coordination of national research programmes to improve impact and effectiveness

- Albania
- Austria
- Belgium
- Canada
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Israel
- Italy
- Luxembourg
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom



The JPND goals

To tackle the challenge of Alzheimer's and other neurodegenerative diseases, the goals of the JPND Research Strategy are:

- **To develop new treatments and preventive strategies**
- **To improve health and social care approaches**
- **To raise awareness and de-stigmatise neurodegenerative disorders**
- **To alleviate the economic and social burden of these diseases**



JPND brings together



- Researchers (Basic, Clinical, Healthcare/Social)
- National Funding Bodies
- National Research Strategies and Investments



Neurodegenerative Diseases?



The neurodegenerative diseases that JPND focuses on are:

- **Alzheimer's disease (AD) and other dementias**
- Parkinson's disease (PD) and PD-related disorders
- Prion disease
- Motor neurone diseases (MND)
- Huntington's Disease (HD)
- Spinocerebellar ataxia (SCA)
- Spinal muscular atrophy (SMA)



Scope of JPND, Research



Scientific

- Animal models
- Biobanks
- Cohorts/registries
- Disease pathology

Medical

- Early diagnosis
- Prevention
- Clinical trials

Social

- Health care delivery
- Home automation
- Health economics
- Ethics



Defragmentation – what JPND is all about...



STRATEGIC RESEARCH AGENDA



ALIGNMENT OF COUNTRIES
ON COMMON RESEARCH GOALS



JPND Research Strategy (SRA)



- **Agreed by all JPND Member States + Assoc. Countries**

- Officially Launched Feb 7th 2012

- **Thematic priorities for future research:**

- The origins of neurodegenerative disease
- Disease mechanisms and models
- Disease definitions and diagnosis
- **Developing therapies, preventive strategies and interventions**
- **Healthcare and social care**



SRA Implementation (2012-2014)

Annual Calls for Proposals



Year	Total fund available	Research Area	No. of Projects
2011 (pilot)	€16M	Optimization of biomarkers + harmonization of their use	4
2012	€18M	Risk and Protective Factors	5
2012	€11M	Evaluation of Healthcare	6
2013	€12M	Cross-Disease Analysis	10
2013	€11M	Preventive Strategies	5

Centres of Excellence in Neurodegeneration (CoEN)

2011	€6M	Phase I : common resources and methodological approaches	8
2012-13	€8M	Phase II : "Pathfinder" projects	5

Call statistics



Year	Call area of interest	No. of proposals submitted	Budget requested (million €)	No. of proposals recommended for funding	No. of proposals supported	Budget supported (million €)	Success rate (%)
2011	Harmonization of Biomarkers	14	€31	5	4	€14	29%
2012	Risk and Protective Factors	52	€97	18	5	€17	10%
2012	Healthcare Evaluation	22	€29	9	6	€9	27%
2013	Cross-Disease Analysis	90*	€112	23	10	€12.5	11%
2013	Preventive Strategies	35*	€36	5	5	€7	14%
Total		213	€157m	60	30	€59.5m	18%

* pre-proposals

JPND-supported projects in Preventive Strategies



- **EURO-SCD:**
Subjective cognitive decline in preclinical Alzheimer's Disease: European initiative on harmonization and on a lifestyle-based prevention strategy (Coordinator: Frank Jessen, Germany)
- **MIND-AD:**
Multimodal preventive trials for Alzheimer's Disease: towards multinational strategies (Coordinator: Mia Kivipelto, Finland)
- **NEUROEXERCISE:**
The effects of an extensive exercise program on the progression of mild cognitive impairment (MCI) (Coordinator: Stefan Schneider, Germany)
- **ONWebDUALS:**
ONTOlogy-based Web Database for Understanding Amyotrophic Lateral Sclerosis (Coordinator: Mamede de Carvalho, Portugal)
- **PreFrontAIs:**
Searching for therapeutic interventions in frontotemporal dementia with C9ORF72 repeat expansions in the presymptomatic stage (Coordinator: John C van Swieten, The Netherlands)

Encouraging deeper levels of collaboration for research groups

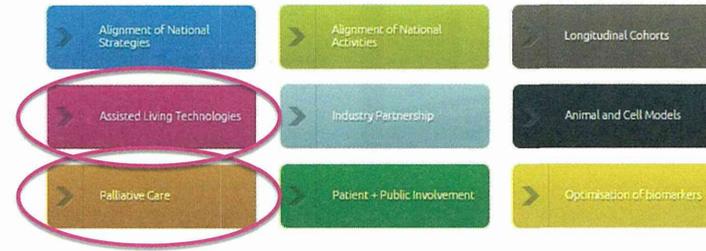


JPND Online Partnering Tool

JPND Alignment Actions



JPND Action Groups for:



Action Group Recommendations



Assisted Living Technologies



Innovation For Our Future

30 focused in dementia out of 150 AAL funded projects

Palliative and End-of-life care for ND

- Distinct from cancer palliative care
- Advanced care planning
- Family involvement
- Cognition
- Difficult prognostication
- Important challenges:
 - how to shape palliative care through:
 - the stages of disease
 - the place of care
 - the key transitions more generally
 - optimizing care delivery through appropriate timing + integration of expertise
 - e.g. expertise in palliative, psychiatric, geriatric, dementia care, social and medical care



Participants at the JPND workshop, Amsterdam, June 25th, 2014



Partnership with the EC

- Establish programme of co-investment to leverage the value of investments and resources at both national and EC level, to the benefit of Europe
- **Synergy between JPND actions and H2020 programme**
 - First call of Horizon 2020 (Dec. 2013)
 - ERA-NET cofund: Implementing a transnational call with EU co-funding
- **Three Call Topics in preparation for the end 2014/beginning 2015:**
 - Identification of genetic, epigenetic and environmental risk + protective factors
 - Longitudinal cohorts in ND research
 - Advanced experimental models of ND



From G7 to JPND, a shared vision

	G7	JPND
United Kingdom	YES	YES
France	YES	YES
Germany	YES	YES
Italy	YES	YES
Canada	YES	YES
United States of America	YES	-
Japan	YES	-
European Commission	YES	YES



Keep up to date

- Visit the JPND **website**:
 - <http://www.jpnd.eu>
- Sign up to the JPND **News Feeds**
- **E-mail us**: secretariat@jpnd.eu
- Follow us on **Twitter**:



@JPNDEurope



Providing Evidence for the Prevention and Care of Dementia in Canada and Globally

Yves Joanette, PhD, FCAHS
Scientific Director, CIHR Institute of Aging
Executive Director, ICRSAD

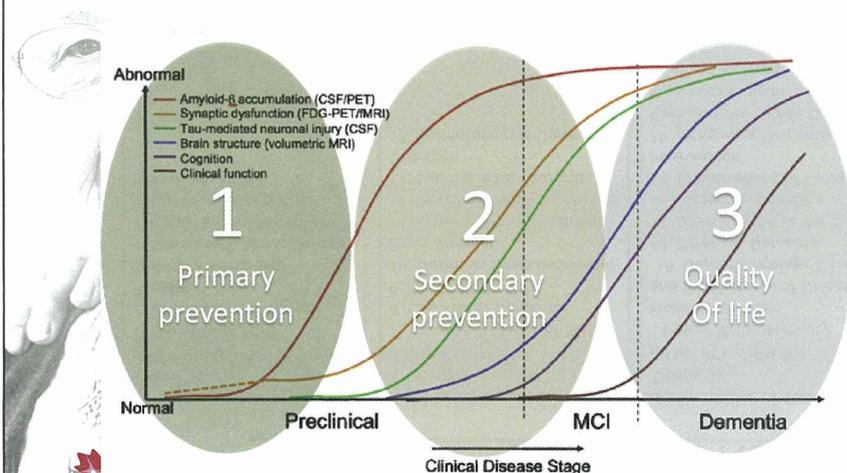
Japan Legacy Event
Tokyo, November 2014

Dementia – A Global Health Issue

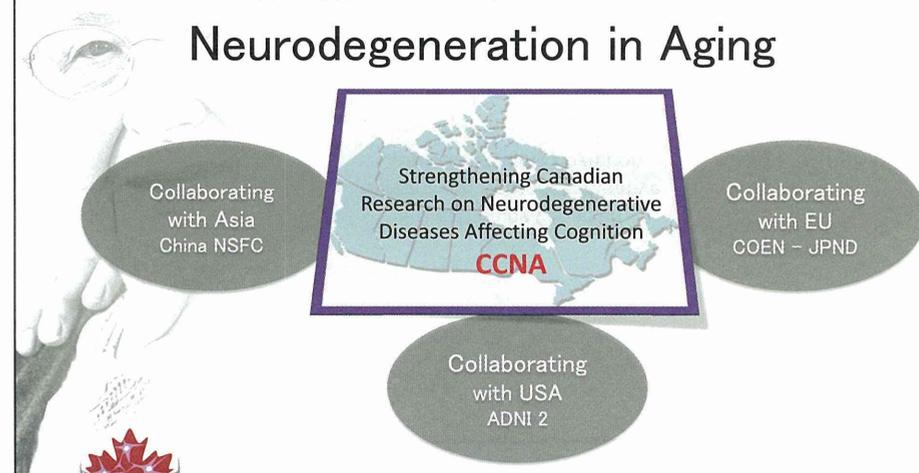
Table 1 Updated estimates of the number of people with dementia living in G8, G20, OECD, LMIC and HIC countries, and as a percentage of world total

Region	People with dementia millions (% of world total)			Proportionate increase (%)	
	2013	2030	2050	2013-2030	2013-2050
G8	14.02 (32%)	20.38 (27%)	28.91 (21%)	45	106
G20	33.93 (76%)	56.40 (75%)	96.61 (71%)	66	185
OECD	18.08 (41%)	27.98 (37%)	43.65 (32%)	55	142
High income	17.00 (38%)	25.86 (34%)	39.19 (29%)	52	131
Low and middle income	27.84 (62%)	49.76 (66%)	96.27 (71%)	79	246
World	44.35	75.62	135.46	71	205

From Prevention to Care



CCNA Canadian Consortium on Neurodegeneration in Aging



Supporting Prevention and Care Integrated Research



CROSS-CUTTING PROGRAMS	Theme 1: PREVENTION 1. Genetics of NDD 2. Inflammation & Growth Factors 3. Protein Misfolding 4. Synapses & Metabolomics 5. Lipids & Lipid Metabolism 6. Nutrition, Lifestyle, & Prevention of AD	Theme 2: TREATMENT 7. Vascular Aspects of NDD 8. Lewy Body Dementia 9. Biomarkers 10. Cognitive Intervention and Brain Plasticity 11. Prevention and Treatment of Neuropsychiatric Symptoms 12. Mobility, Exercise, and Cognition 13. Frontotemporal Dementia	Theme 3: QUALITY OF LIFE 14. How Multi-Morbidity Modifies the Risk and the Patterns of Disease 15. Gerontechnology & Dementia 16. Driving & Dementia 17. Interventions at the Sensory and Cognitive Interface 18. Effectiveness of Caregiver Intervention 19. Integrating Dementia Patient Care into the Health Care System 20. Issues in dementia care for rural and indigenous populations
TRAINING & CAPACITY BUILDING			
KNOWLEDGE TRANSFER			
ELSI			
WOMEN & DEMENTIA			

Eight Platforms to Support the Teams

1. Clinical Cohorts
2. The Normative Comparison Group
3. Imaging/Database/Information Technology
4. Blood, Saliva & CSF Biosamples
5. DNA Sequencing
6. Brain Banking
7. Transgenic Colonies
8. Academic Clinical Trials




The Canadian Dementia Research Strategy

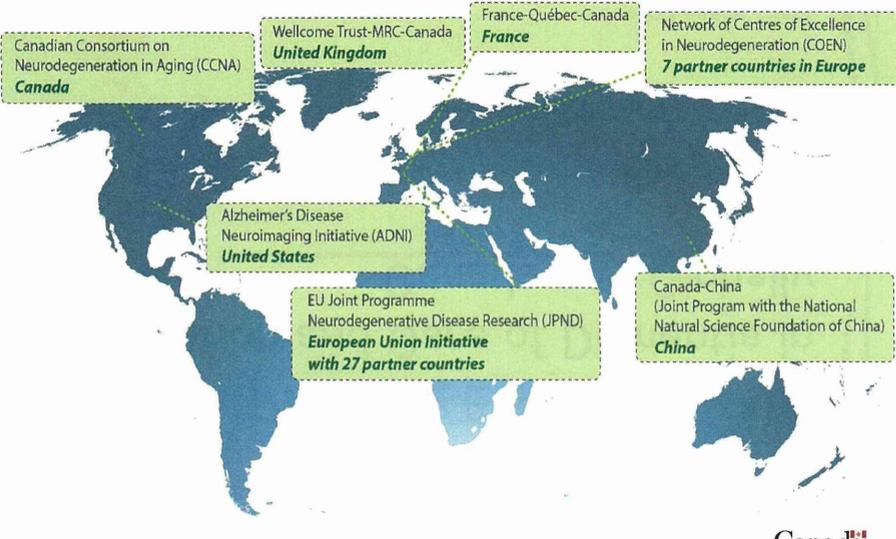


- Collaborating with Asia
China NSFC
- Collaborating with EU
COEN – JPND
- Collaborating with USA
ADNI 2

Strengthening Canadian Research on Neurodegenerative Diseases Affecting Cognition



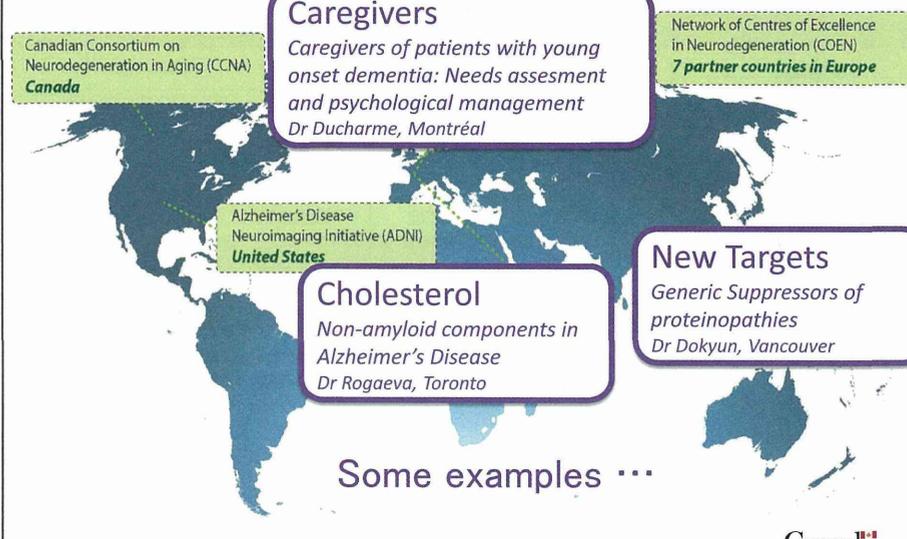

International Initiatives



- Canadian Consortium on Neurodegeneration in Aging (CCNA)
Canada
- Wellcome Trust-MRC-Canada
United Kingdom
- France-Québec-Canada
France
- Network of Centres of Excellence in Neurodegeneration (COEN)
7 partner countries in Europe
- Alzheimer's Disease Neuroimaging Initiative (ADNI)
United States
- EU Joint Programme Neurodegenerative Disease Research (JPND)
European Union Initiative with 27 partner countries
- Canada-China (Joint Program with the National Natural Science Foundation of China)
China



International Initiatives



- Canadian Consortium on Neurodegeneration in Aging (CCNA)
Canada
- Alzheimer's Disease Neuroimaging Initiative (ADNI)
United States
- Caregivers**
Caregivers of patients with young onset dementia: Needs assesment and psychological management
Dr Ducharme, Montréal
- Cholesterol**
Non-amyloid components in Alzheimer's Disease
Dr Rogaeva, Toronto
- New Targets**
Generic Suppressors of proteinopathies
Dr Dokyun, Vancouver
- Network of Centres of Excellence in Neurodegeneration (COEN)
7 partner countries in Europe

Some examples ...





CDKTN has three research themes at sites across Canada. You can explore these themes below.



Education and Training



This theme focuses on development of training programs and opportunities for researchers and health practitioners in knowledge translation and exchange (KT&E), funding opportunities and research projects for the study of KT in dementia research. The heads for this theme are Dr. Judy Illes and Dr. Lynn Beattie (National Core for Neuroethics and Division of Geriatric Medicine, University of British Columbia)

Website for teens living with fronto-temporal dementia in the family:

Tweens and teens who have a parent or grandparent with dementia now have a website designed specifically for them. When Dementia is in the House was developed to educate caregiving for children living with someone who has dementia, with a focus on frontotemporal dementia (FTD).



Knowledge Exchange

A Unique Collaborative Ecosystem to Face the Global Challenge of Dementia




Providing Evidence for the Prevention and Care of Dementia in Canada and Globally

<http://www.cihr-irsc.gc.ca/e/46475.html>

yves.joanette@umontreal.ca

www.cihr-irsc.gc.ca

Global Dementia Legacy Event Japan

Roppongi Hills, Tokyo 2014.11.6

The role of geriatricians in management of dementia - from the viewpoint of life style modification -

President, Federation of National Public Service Personnel Mutual Aid Associations Toranomon Hospital

Professor Emeritus, University of Tokyo

Chair, The Japan Geriatrics Society

Yasuyoshi Ouchi, MD., Ph.D.

Some about The Japan Geriatrics Society

- The Japan Geriatrics Society (JGS), established in 1959, is only one scientific society in Japan which organizes the research in the field of geriatric medicine, focusing mainly on the research of the diagnosis & treatment of geriatric diseases including dementia, osteoporosis, atherosclerosis, infectious diseases, and geriatric syndrome such as frailty.
- JGS also aims at conducting research toward the construction of better long-term care for the elderly.
- JGS has 6,486 members, mainly medical practitioners and investigators.
- JGS organizes an annual scientific meeting and many educational seminars for practitioners and medical students.
- JGS publishes official scientific journals, Japanese journal and English journal named *Geriatrics and Gerontology International* (2012 IF 2.167).
- JGS approves board-certified geriatricians (1,537 all over Japan at present).
- JGS is a member society of The Japan Gerontological Society.
- JGS considers that the role of geriatricians in dementia practice is the management of life style and life style-related diseases including hypertension, diabetes, and dyslipidemia which possibly accelerates the development of not only vascular dementia but also Alzheimer's disease.

Risk factors for Alzheimer's Disease

① Unpreventable risk factors ② Medical risk factors

- 1) Aging
- 2) Menopause
- 3) Family history
- 4) Genetic factors

APP gene
Presenilin gene1,2
Apo E

Life style-related diseases

Depression
Head trauma
hypothyroidism
hypertension
DM
dyslipidemia

③ Life style

⇒ Diet, Smoking, Excess intake of alcohol, exercise deficiency

What life-style is good for preventing Alzheimer's disease?

