Accelerating research: innovation and partnerships

Moderator: Professor Sir Simon Lovestone
Janssen/J&J

#DefeatingDementia
Accelerating research: innovation and partnerships

Jacqueline Hoogendam
Board member, JPND

#DefeatingDementia
Joint Programming in Neurodegenerative Disease Research (JPND)

Jacqueline Hoogendam
JPND Executive Board
The Netherlands
Forecasted global costs of dementia
2015-2030

From Wimo A et al, Alzheimer’s & Dementia, 2017
The conditions of success

- Increase the critical mass of physicians and scientists involved in neurodegenerative disease research
- Increase the funding dedicated to neurodegenerative disease research
- Increase the number of collaborations globally
Internationalisation: Europe and beyond

JPND is the largest global research initiative aimed at tackling the challenge of ND led by EU countries, with 30 participating

**EU member states**

**Associated countries**

**Partner countries**

Collaboration with USA NIH since 2018

Exploring potential for future collaboration with

- EU13 countries
- Brazil
- China
- India
- Japan
- Singapore
- South Korea
Joint Programming - principles

Three pillars

• Shared vision
• Light and robust management structure
• Common research and innovation strategy
JPND progress to date

• RIS for a Common European/Global Strategy
• Research Database
• Alignment of National Plans and Strategies
• Operating plan (2015-2020)
• Transnational joint calls
• Working groups
• Widening participation and internationalisation
• Stakeholder involvement
• Monitoring and assessment activities
• Communication and dissemination
Multi-annual commitment of Member States

Earmarked budget
- 2011-2014: €68
- 2015-2018: €77
- Total: €145

Allocated budget
- 2011-2014: €60
- 2015-2018: €71
- Total: €131

Research portfolio in millions
- 2011: €370
- 2016: €566
Publicly available tools and resources for researchers and stakeholders

• Global Cohort Portal

• Database on Experimental Models for Parkinson’s Disease

• A map of funded research, resources and infrastructures
The secret of JPND’s success

• Voluntary engagement on a variable geometry
• Light, but robust management
• Common research and innovation strategy
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

@JPNDEurope
Accelerating research: innovation and partnerships

Dr Heather Snyder
Vice President, Medical and Scientific Research
Alzheimer’s Association

#DefeatingDementia
Need for Global Partnership

• More than 50 million people living with dementia worldwide
• 2013 Dementia Summit
• Must work together to accelerate research, maximize investments, stimulate new discoveries
• Advancing global conversation; build on/ establish new partnerships
Partnership is Cornerstone

Guy McKhann, MD; David Drachman, MD; Marshall Folstein, MD; Robert Katzman, MD; Donald Price, MD; and Emanuel M. Stadlan, MD

McKhann et al. Neurology Jul 1984, 34 (7) 939; DOI: 10.1212/WNL.34.7.939
Advances in Understanding Alzheimer’s

Cognitively Unimpaired

Alzheimer’s dementia

BIOMARKERS

History & Cognition
Revised Diagnostic Guidelines for Alzheimer’s

Representatives from U.S., Canada, U.K, France, and Japan
Possibility of Prevention
2018 National Institute on Aging—Alzheimer’s Association (NIA-AA) Research Framework

NIA-AA Research Framework: Toward a biological definition of Alzheimer’s disease

Clifford R. Jack, Jr.,a–g, David A. Bennettb, Kaj Blennowc, Maria C. Carrillod, Billy Dunn,e Samantha Budd Haebelrein, David M. Holtzmañ, William Jagusth, Frank Jesseni, Jason Karlawish, Enchi Liuk, Jose Luis Molinuevo, Thomas Montine, Creighton Phelpsn, Katherine P. Rankino, Christopher C. Rowe, Philip Scheltens, Eric Siemens, Heather M. Snyder, Reisa Sperling

Contributors: Serise Elliot, Eliezer Masliah, Laurie Ryan, and Nina Silverberg

*Department of Radiology, Mayo Clinic, Rochester, MN, USA
bDepartment of Neurological Sciences, Rush University, Chicago, IL, USA
cDepartment of Psychiatry and Neurochemistry, University of Gothenburg, Gothenburg, Sweden
dMedical & Scientific Relations, Alzheimer’s Association, Chicago, IL, USA
eOffice of Drug Evaluation, FDA, Silver Spring, MD, USA
fBiogen, Cambridge, MA, USA
gDepartment of Neurology, Washington University, St. Louis, MO, USA
hDepartment of Public Health and Neuroscience, University of California Berkeley, Berkeley, CA, USA
iDepartment of Psychiatry, University of Cologne, Medical Faculty, Cologne, Germany
jDepartment of Medicine, University of Pennsylvania, Philadelphia, PA, USA
kProthera Biosciences, Inc., San Francisco, CA, USA
lBarcelonaBeta Brain Research Center, Pasqual Maragall Foundation and Hospital Clinic-HBARAPS, Barcelona, Spain
mDepartment of Pathology, Stanford University, Stanford, CA, USA
nFormerly at National Institute on Aging, Bethesda, MD, USA
oDepartment of Neurology, University of California San Francisco, San Francisco, CA, USA
pDepartment of Molecular Imaging, Austin Health, University of Melbourne, Melbourne, Australia
qDepartment of Neurology, VU University Medical Center, Amsterdam, Netherlands
rFormerly at Eli Lilly and Company, Indianapolis, IN, USA
sDepartment of Neurology, Brigham and Women’s Hospital, Boston, MA, USA
Framework proposes to **DEFINE** and **STAGE** disease across the continuum for future **RESEARCH** studies

- Framing Alzheimer’s like heart disease, cancer
- *Research* framework to stimulate research in new directions; not intended for general clinical care
A Turning Point in Alzheimer’s Research: Harmonized Research Strategies and Novel Investments in Public Health Infrastructure Are Reenergizing the Field, and Rekindling Hope for Those Affected by Alzheimer’s and Related Dementias

M.C. Carrillo¹, H.M. Snyder², R. Conant², S. Worley³, R. Egge²

¹ Alzheimer’s Association, Division of Medical and Scientific Relations, Chicago, IL, USA; ² Alzheimer’s Association, Public Policy and Advocacy Division, Washington, DC, USA; ³ Independent Science Writer, Devon, PA, USA

Correspondence author: Heather M. Snyder, Senior Director, Alzheimer’s Association, Medical & Scientific Relations, Alzheimer’s Association, 225 North Michigan Avenues, Suite 1000, Chicago, Illinois 60601, USA, hsnyder@alz.org

Published online September 19, 2020, http://dx.doi.org/10.4143/jpadi.2019.36
Accelerating research: innovation and partnerships

Kazumi Nishikawa
Director of Healthcare, METI

#DefeatingDementia
Ministerial Council and Public-Private Council on the Promotion of Dementia care Policies

• On December 25, 2018, Prime Minister Shinzo Abe attended the first meeting of the Promotion of Dementia Care Policies at the Prime Minister’s Office. They established the executive committee which member is Director-General of each ministries.

• The executive committee decided to set up the Public-Private Council on the Promotion of Dementia Care Policies where all the ministries work in unity to advance policies about dementia.

• On April 22, 2019, Public-Private Council on the Promotion of Dementia Care Policies was established. We consider to advance initiatives such as promoting innovation of dementia care and dementia-barrier-free society.
Overview of screening and solution (Draft)

**Screening**
- Cognitive functioning test
- IADL (Instrumental activity of daily living)
- Diagnostic imaging (CT, MRI)
- Blood test
- Medical history

**Solution**
- Five senses
- Exercise
- Reduce obesity
- Treatment of hypertension
- Treatment of diabetes
- Reduce depression
- Stop smoking
- Balanced food
- Adequate sleep
- Core symptoms (BPSD)
- Reduction of care burden
- QOL
- Rich social network
- Brain-training exercise
- Medicine
- Literacy
- Primordial prevention

**Healthy**
**Subjective Cognitive Impairment (SCI)**
**Mild Cognitive Impairment (MCI)**
**Alzheimer dementia (AD)**
Dementia/MCI related life-style needs

- Cognitive decline affects to individual life-style needs. While such needs are unique for every individual, a comprehensive mapping of tentative life-style needs helps development of new solutions to prepare and to live with dementia/MCI.

<table>
<thead>
<tr>
<th>The state of the person needs</th>
<th>Normal cognitive function</th>
<th>SCI</th>
<th>MCI</th>
<th>AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues related to economic activities</td>
<td>Analyzing and managing life-style spending for early detection of cognitive decline</td>
<td>Deterioration of money management ability (payment/drawer / passbook management)</td>
<td>Difficulty for Using the savings</td>
<td>Inheritance (guarantee / preparation of cognitive ability of a will)</td>
</tr>
<tr>
<td>Issues related to housing</td>
<td>Comfortable home to provide healthier life Easy access to family and community</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility issues</td>
<td>Easy solutions for last one mile Driving support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response to social participation issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issues for supporting (mainly family / community care)</td>
<td></td>
<td></td>
<td>Support for loitering</td>
<td></td>
</tr>
</tbody>
</table>

- Red is dementia specific, blue is not dementia specific

※Draft
Social and economic impact of new solutions

- It is necessary to analyze the social and economic impact of solutions for stakeholders.
- While the impact is unique for each case, a standard method for measuring tentative impact will help stakeholders to choose and prioritize new solutions.