



Accelerating Innovation in Dementia through Public Private Partnerships:

The Innovative Medicines Initiative (IMI) and its neurodegeneration portfolio

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IMI - Europe's partnership for health

IMI2: 2014-2020 IMI1: 2008-2013 €3.3 bn budget €2 bn budget More ambitious 59 projects More open Greater scope > €5 bn efpia €2.5 bn **Partnership** 2008 - 2020 €2.5 bn

IMI – Europe's partnership for health

IMI mission

IMI facilitates open collaboration in research to advance the development of, and accelerate patient access to, personalised medicines for the health and wellbeing of all, especially in areas of unmet medical need.

IMI2 JU **SRA** (https://www.imi.europa.eu/sites/default/files/uploads/documents/About-IMI/research-agenda/IMI2_SRA_March2014.pdf) is fully aligned with both the EU's health research priorities, and the World Health Organisation's Priority Medicines for Europe and the World report.

IMI 2 budget (2014 – 2020)

EU funding goes to:

Universities

SMEs

Mid-sized companies

Patient groups

etc...



€1.638 bn



€1.425 bn

Other €213 m

IMI 2 total budget €3.276 billion

EFPIA companies

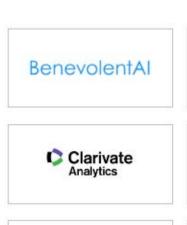
receive no funding

contribute to projects 'in kind'

Associated Partners e.g. charities, non-EFPIA companies



EFPIA Partners in Research





















































IMI2 Associated Partners as of March 2019

Accelerate Diagnostics

Autism Speaks

Autistica

BD Switzerland Sarl

Bill and Melinda Gates Foundation (BMGF)

Bio-rad Laboratories

Cepheid Europe

CHDI Foundation

Children's Tumour Foundation

Diamond Light Source

International Diabetes Foundation

Invicro

JDRF

KTH Royal Institute of Technology

Leona M. and Harry B. Helmsley

Charitable Trust

McGill University

Medicines for Malaria Venture

Obesity Action Coalition

Ontario Institute of Cancer Research

Parkinson's UK

Simon Foundation Autism Research

Initiative (SFARI)

Software AG

Springworks Therapeutics

T1D Exchange (formerly Unitio)

TB Alliance

University of Dundee

Wellcome Trust

Total Number of Associated Partners: 27

Total EUR committed: **EUR** 162,232,214



What do we attack in IMI?

- IMI is not for everyone and it is not for everything
- But we can tackle some big things that other mechanisms cannot Some examples:
 - Pooling of assets from disparate sources (across the public/private divide) in order to do impactful things
 - Complex technology platforms that require scale for success
 - Catalysing new infrastructures representing significant gaps in the system
 - Tackling really big societal challenges that seem to be "stuck"
 - Problems where different stakeholder groups are required to be at the same table from day 1
 - Opportunities for technology convergence to be operationalised in high risk areas
 - New actors- new industrial sectors- important role for European SMEs
 - Areas that challenge the traditional thinking around the precompetitive space



IMI: we make connections and break silos



Picture Credit: Public Works Knowledge Network



IMI – Ecosystem for innovative collaborations

IMI is a **neutral platform** where **all involved** in drug development can engage in **open collaboration** on **shared challenges in areas of unmet medical needs**.

All partners needed to find transformative solutions to reduce late stage attrition, speed patient access and improve health outcomes and find solutions for a sustainable healthcare system

Regulators

HTA bodies

Payers

Healthcare practitioners

Academia Charities

Patients



Pharma companies

Diagnostic companies

Other sectors (e.g imaging, nutrition...)

Public health bodies



Patient involvement in IMI projects



About 20.5 % of active projects have patients' organisations represented in the consortium as full partners.

About 30 %
of active projects
have patient
organisations
represented in
advisory boards or
have consulted
with patient

About 50 %
of IMI projects give
a strong voice to
patients, either by
having them as full
partners or giving
them an active role
in the project.

Alzheimer's Europe is a partner in most IMI projects on Alzheimer's disease



Moving forward: from initial to strategic patient engagement

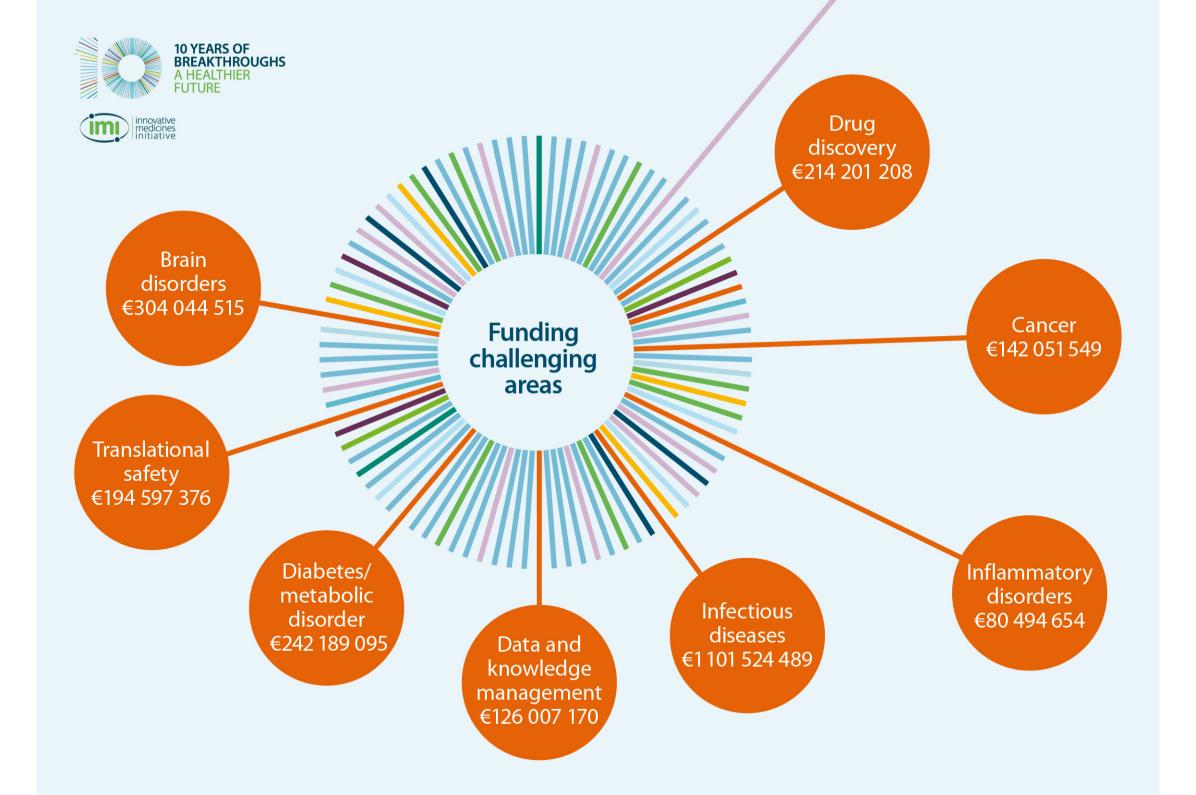
The IMI
Scientific
Committee
includes a
patient
representative

IMI pool of patient experts who will:

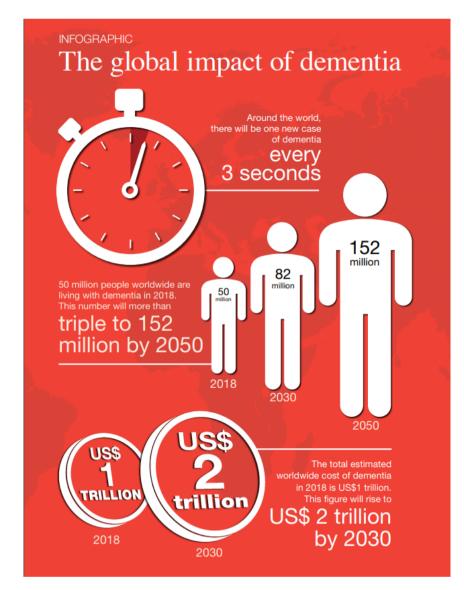
- Contribute to shaping the IMI portfolio and improve quality of IMI projects from patient perspective through early & meaningful engagement.
- Support and enhance patient involvement in IMI projects.
- Support identification of patient-relevant results and, where appropriate, their implementation in research, regulatory and medical practice.

118 patients and 39 family members / informal carers including three people with dementia and three supporters from the European Working Group of People with Dementia





The dementia tsunami



Source: World Alzheimer Report 2018 by Alzheimer's Disease International

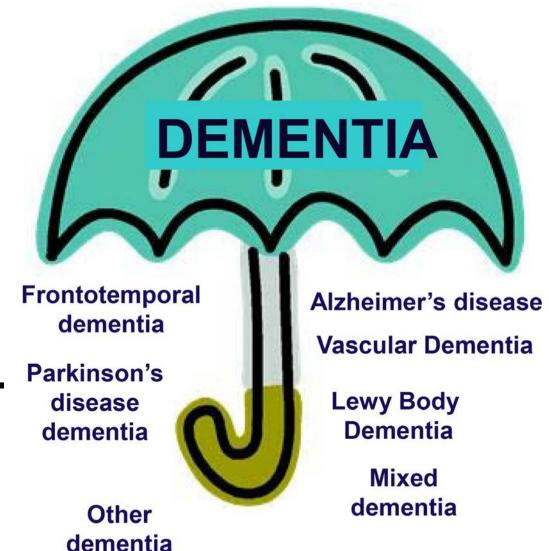


Dementia and Alzheimer's Disease

Dementia

- A set of symptoms
 - Gradual in onset
 - Decline in cognitive ability, judgement, orientation, function at home/work/community

Alzheimer's disease The most common <u>cause</u>
of dementia in people
over age of 65





People with dementia

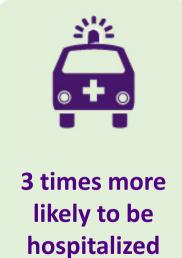
A population with complex care needs



2.5 chronic conditions (average)



5+ medications (average)

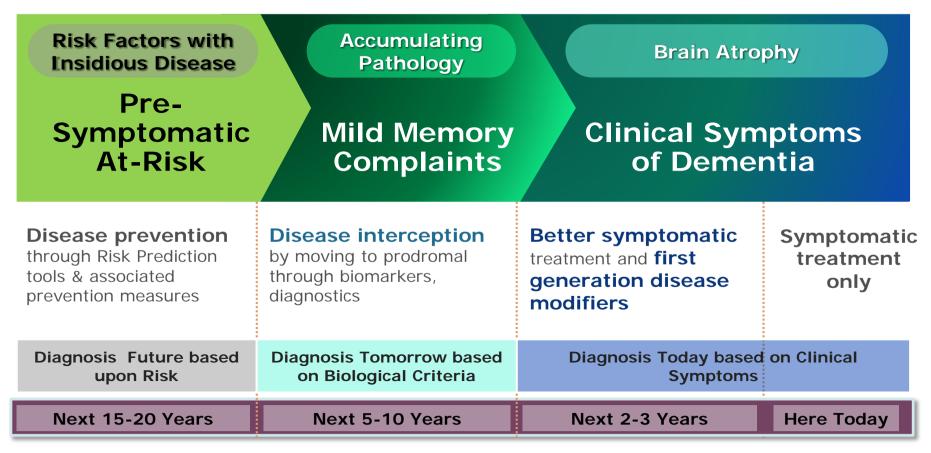


Many admissions from preventable conditions, with higher per person costs

 Indisputable correlation between chronic conditions and costs



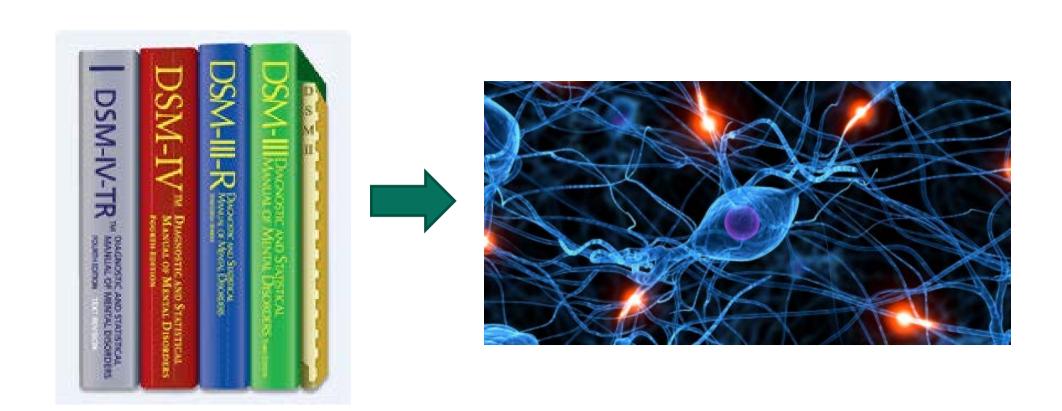
Neurodegeneration: Diagnosis and Therapeutics Moving Earlier



Neurodegeneration Therapeutics is moving earlier in disease process: the concept of disease interception



From diagnose to biology





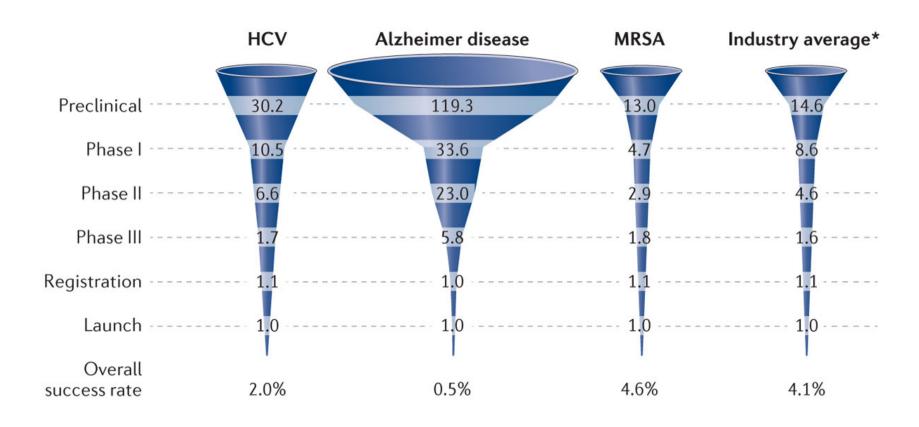
The future: going beyond classical diagnostic boundaries for better treatment of psychiatric symptoms in people with

dementia? ALZHEIMER'S DISEASE Electro-4 SOCIAL WITHDRAWAL å Smart phone **SCHIZOPHRENIA**





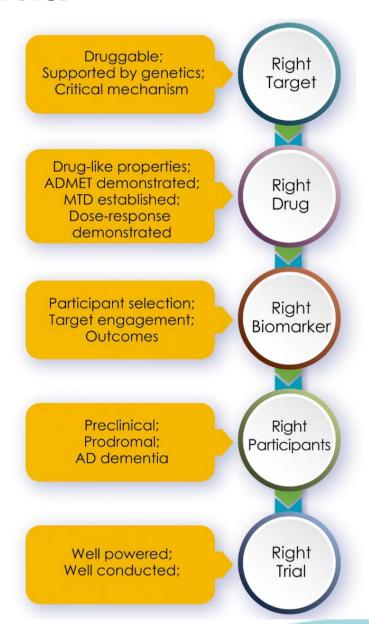
What does it take to make a drug for Alzheimer's disease?







The "rights" for a successful treatment for dementia



The "rights" of precision drug development for Alzheimer's disease

Jeffrey Cummings 🖳 Howard H. Feldman & Philip Scheltens

Alzheimer's Research & Therapy 11, Article number: 76 (2019) | Download Citation ±

For the "rights" to become treatments delivered to the people that need them we need the right strategic approach, programmatic highly collaborative, public-private bringing all stakeholders around the table



Neurodegeneration: a strategic area of IMI2 and a programmatic approach

Disease biology/target identification & validation

Lead discovery/tool compounds

Validation of Translation models & Biomarkers

Blood Brain Barrier Prevention

Clinical Trials
Endpoints &
Infrastructures

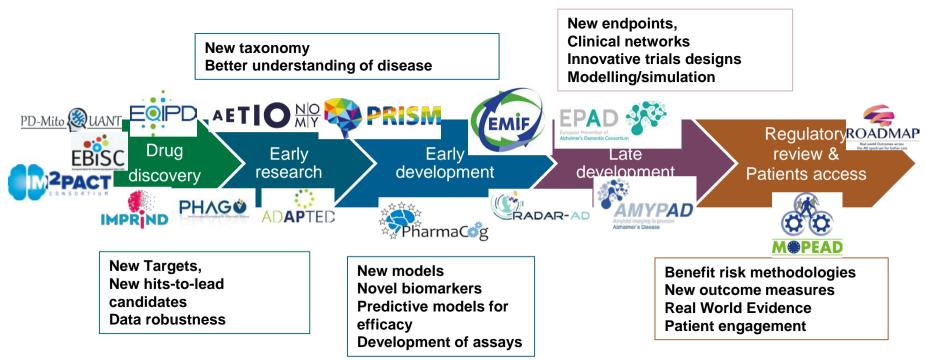
Patient Access
Generation of
patient and
payer-relevant
data.

IDEA

TREATMENT



IMI Projects in neurodegeneration cover the whole value chain



- End-to-end approach from discovery through all the way to patient access of innovative medicines;
- Vision of "personalised" medicines": prevention, treatment and health management



Joining the dots: from the Alzheimer's Disease Platform to Neuronet





IMI Alzneimer's projects launch joint platform

The Innovative Medicines Initiative and three of its projects have announced the creation of a special research initiative focusing on Alzheimer's disease. The medical Joint Technology Initiative (JTI) is also announcing plans to sign a Memorandum of Understanding (MoU) to accelerate Alzheimer's drug development.

The IMI is working with its AETIONOMY, EMIF and EPAD projects to create the Alzheimer's Disease Research Platform, which will facilitate collaboration between the three projects and help to deliver results faster. It is hoped that the Mol L circuit between the IMI and the Global Alzheimer's Platform (GAP) will accelerate Alzheimer (GAP) wi

Facilitate collaboration to help deliver results faster, create efficiencies and create value



A new Health Partnership under Horizon Europe

European Partnership for Health Innovation

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Why a European Partnership for Health Innovation?

Healthcare in Europe is at a crossroads. It faces increasing challenges on a number of fronts; at the same time, technological and scientific advances offer new opportunities to solve these challenges. Bridging the gap to address today's health and translational challenges will require a multi-sector Public-Private Partnership.



Ensure the voice of people with dementia is heard!





https://www.euhealthppp.org/consultation

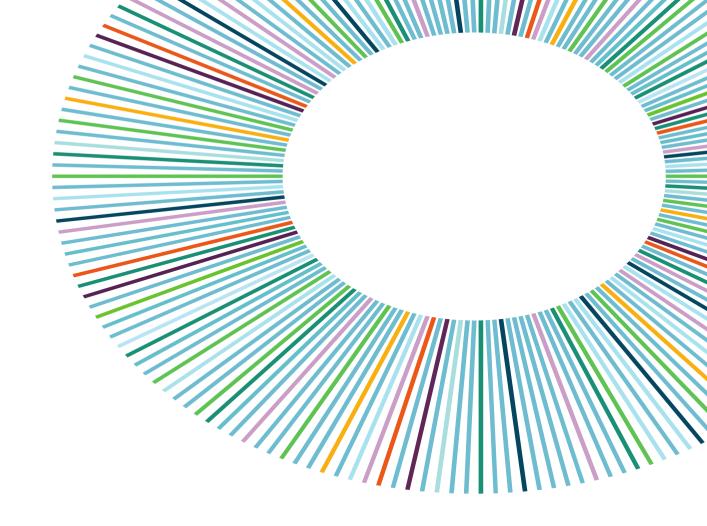
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Thank you!

