An Initiative for Speeding Innovation

Spring 2022
A Comprehensive Global Response to a Growing Threat

Our Focus on Driving Alzheimer’s Innovations

During the World Economic Forum’s Annual Meeting (Davos 2020), pharmaceutical executives, government leaders, non-governmental organization representatives and healthcare thought leaders met and decided to pursue collaboration in three areas to speed innovation.

1. **Global Cohort Development**
   - Build a global cohort with high-quality, detailed data on a well-characterized, diverse population, readily available to researchers, to increase discovery of targets for drug development with associated biomarkers.

2. **Global Clinical Trials**
   - Reduce the cost and time to bring new treatments to market globally.

3. **Healthcare System Preparedness**
   - Facilitate the implementation of national, regional and global commitments to provide access to future innovations in treatment, diagnosis and care.
A Comprehensive Global Response

Our Approach to Speeding Innovation

1. Achieving Global Scale

2. Linking Regional and Sectoral Efforts

3. Engaging LMIC
Addressing Global Unmet Needs
A Track Record of Spurring Innovation

Funds increased access to immunizations
$900M launch
$19B to date

Funds vaccines research for emerging infectious diseases
$750M launch
$2B to date

Funds innovation in Alzheimer’s disease
$750M goal at launch

2000
2021
# The Davos Alzheimer’s Collaborative

## Taking the Next Step to Respond to Global Commitments

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2013</td>
<td>Ministers from each of the G7 countries committed to a 12-point plan to set an ambition goal to speed innovation.</td>
</tr>
<tr>
<td>2017</td>
<td>Set a global action plan at the World Health Assembly aimed at making a difference to the lives of people affected by dementia.</td>
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<tr>
<td>2019</td>
<td>G20 commits to promote healthy and active ageing and implement comprehensive set of policies to address dementia.</td>
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<tr>
<td>2020</td>
<td>Presentation during the 2020 Annual Meeting in Davos charges WEF and CEOi to develop a multi-year collaborative to change the pace of innovation in Alzheimer’s disease research and care.</td>
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</table>
Building the Organization

A Sustainable Stand-Alone Global Organization
Governance Structure
Proposed Flow of Funds

Funds from Governments and Sovereign Wealth Funds

World Bank

Swiss-based Foundation

US-based 501c3

For-Profit Vehicle

ROW Organization(s) TBD

Funds from NGOs, Philanthropy and Grants

Investments

Once $200M is raised
Founding Board Members include:

- **Dr. Elias Zerhouni**, Professor Emeritus, Johns Hopkins University; Former Director, National Institutes of Health; Former President R&D, Sanofi
- **Dr. Freda Lewis-Hall**, former Executive Vice President and Chief Medical Officer, Pfizer
- **Dr. Margaret Chan**, Dean, Yanke School of Public Health, Tsingua University; Former Director General, World Health Organization
- **George Vradenburg**, former Chief Legal Council, CBS; former Executive Vice President, AOL
- **Julien Gattoni**, Chief Financial Officer, World Economic Forum
- **Drew Holzapfel**, Executive Director, The Global CEO Initiative on Alzheimer’s Disease

- Investors Forum is 5 rotating members who invested in DAC (and will serve as an observer on the Board)
- Champions Council members are key ambassadors for the effort; group meets annually to review progress and provide input
- Scientific and Medical Advisory Council is the principal advisory group to the Board and the CEO on scientific, legal, regulatory and healthcare system issues
- Partners Coordination Council is comprised of DAC partners, co-creators and collaborators
- Task Forces are comprised of subject matter experts and advise each of the program leads
# A Comprehensive Global Response

## Approximate Expense Budget for Programs

<table>
<thead>
<tr>
<th>Goal</th>
<th>Foundational Phase (2021-2022)</th>
<th>2023-2026</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Global Cohort Development</strong></td>
<td>$10M</td>
<td>$355M</td>
<td><strong>$365M</strong></td>
</tr>
<tr>
<td><strong>Global Clinical Trials</strong></td>
<td>$3M</td>
<td>$242M</td>
<td><strong>$245M</strong></td>
</tr>
<tr>
<td><strong>Healthcare System Preparedness</strong></td>
<td>$10M</td>
<td>$90M</td>
<td><strong>$100M</strong></td>
</tr>
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</table>

Total: **$710M**
Project Budget Summaries

Proposed Initial Budgets by Work Groups
Global Cohort Development
Global Cohort Development Program

The Issues We Face

• Incomplete global understanding of the heterogeneity and the variability of Alzheimer’s etiology

• Need for new targets and biomarkers for drug development

Our Commitment

• Build a global cohort of 1 million people with high-quality, detailed data on a well-characterized, diverse population, readily available to researchers, to increase discovery of targets for drug development with associated biomarkers
Global Cohort Development Program

2021 Summary

Scale

Enrich Cohorts Around the World

Secured participation from 14 cohorts representing over 26,000 people and partnership with 22+ cohorts in a network in Europe and South America.

Completed trans-ethnic AD Polygenic Risk Score pilot.

Diversity

Prioritize Low to Middle Income Countries

Initiated digital phenotyping in Malaysia and Argentina.

Broad Data Access

Decentralize Data Access

Partnership with Gates Ventures’-funded ADDI.

In discussions with other data platforms.

New Tools

Increase Data Collection Methods

Reviewing potential leapfrog technologies (e.g., eye scanning, breath analysis, etc.).

Working with Broad Institute to support our biosample management plan.
Global Cohorts Development Program

2022 Milestones

Q1

Foundational phase cohort sites (14) are activated.

Activate biosample management plan and initiate new blood collection.

Provide LOI to NIH ($150M).

Q2

Gain commitment from new cohorts to total 50,000 subjects.

Q3

First DAC Research Institute is launched.

Initial digital phenotyping data available through ADDI.

Submit NIH grant. PIs – Au, Philipakis, Levey* (Dependent upon Q1 NIH leadership green light)

Q4

Initial genome sequencing complete.

Gain commitment from new cohorts to total 100,000 subjects.

PIs – Au, Philipakis, Levey* (Dependent upon Q1 NIH leadership green light)
Global Cohort Development
Engagement Process for Cohorts in the Foundational Phase

1. Recruitment
   Attract cohorts with an increased focus on LMIC

2. Initial Engagement
   Engage in foundational phase data development and organization actions

3. Enrichment
   Data funded to increase cohort’s application to Alzheimer’s research
   - DAC Funds
   - Cohorts to Enrich Based on Scientific Plan
     - One time measurement
     - Longitudinal measurement

4. Discovery
   Data available to researchers
   - Cohort Data
     - Harmonized and Made Available

5. Capability Building
   Tools and services available to participating cohorts
   - DAC- Cohort Partnerships to Advance Shared Scientific Plan

Key:
- DAC Led
- Partner Led

Cohorts Provide Data Dictionaries
- DAC Signs DAC Commitment Letter
- Cohort Signs DAC Commitment Letter

Cohort Catalogued
- DAC Led
- Partner Led

As of September, representing over 1.5M people with data dating back over 25 years

DAC Targets Cohort Based on Scientific Aims
- Cohort Expresses Initial Interest

Cohort Data Harmonized and Made Available
- Biosamples Stored
  - Regional storage/handling as dictated by national and regional regulations
Healthcare System Preparedness

The Issues We Face

- The aging global population, which increases the number of families with Alzheimer’s, has a dramatic impact on national budgets, global economic growth and monetary policy.

- Healthcare systems are not prepared to detect cognitive change, diagnose accurately, identify the right intervention or deliver future treatment.

Our Commitment

- Facilitate the implementation of national, regional and global commitments to provide access to future innovations in treatment, diagnosis and care.
Patient Pathway
DAC Intends to Catalyze and Scale Innovation Across the Individual and Family Journey

Prevention | Health Promotion | Integrated Healthcare | Long Term Care

Awareness and Activation | HCS Patient Flow | Access

Encourage Targeted Innovation

Initial Focus
Screening and early detection
Diagnosis of MCI and dementia

Public Awareness & Education
Consumer Awareness & Activation
Consumer & HCS/Payer Connection
HCP Education & Activation

Healthcare Mgmt and Delivery
Care Planning
Services and Social Support
Dementia Care
Healthcare System Preparedness Program

2021 Summary

Design and Implement Pilots

Locally Driven Pilots

Crowdsource Innovation

Communities of Practice

Facilitate and Embed Change

Learning Labs

Drive Adoption of Best Practices

7 pilots in 6 countries created – focused on disease detection.

Japan, Jamaica, UK, Mexico, Brazil and the US (2).

$2M RFP issued – focused on detection.

70+ applications from 21 countries received in 2-month submission period.

Monthly meetings held with flagship sites to share learnings and problem solve ultimately develop a durable tool kit for agile scaling.

Bi-annual meeting of governments and healthcare system executives initiated and metrics established to drive accountability.
Inaugural Grant Request for Improving Detection Responses Received from Across the Globe

Over 75 responses from 21 countries in two months

- Argentina
- Armenia
- Austria
- Brunei
- Canada
- Cuba
- Egypt
- France
- Germany
- Greece
- Hungary
- Iran
- Japan
- Kenya
- Romania
- Singapore
- South Korea
- Spain
- Switzerland
- UK
- US
Healthcare System Preparedness Program

2022 Milestones

**Q1**
- **Detection** Flagship Project sites’ first patient visit.
- Develop **diagnosis** Flagship Project design.
- Hold **Learning Lab** along side the World Health Assembly.

**Q2**
- **Detection** grant recipient projects begin following internal and external review.
- Secure **diagnosis** Flagship Project sites.

**Q3**
- **Detection** Flagship Project sites’ last patient visit.
- Develop **diagnosis** RFP
- Hold **Learning Lab** along side Lausanne IX.

**Q4**
- **Detection** Flagship Project sites’ last patient visit.
- **Detection** grant recipient **Community of Practice** Meeting and kick off tool kit development.
Our Process
Building the Foundation to Scale Results

Mechanisms for Scaling New Pathways of Care

Bring together global stakeholders to share learnings and work towards adopting and implementing new models.

- **Learning Lab**
  - Comprised of committed government policy leads and key policy influencers
  - Meet 2x per year
  - World Health organization serves as a technical advisor

- **Communities of Practice**
  - Consolidate lessons learned from cross-site implementation through a CFIR framework
  - Creating a durable digital toolkit to help scale learnings globally
Global Clinical Trials Support Platform
Clinical trials for Alzheimer’s Disease therapies have a historical success rate of .4% compared to a 9.6% average success for all therapeutic trials. The time and cost required to bring AD targets to market is estimated at 20 years and $6.5 billion compared to 10 years and $2.6 billion on average for all disease indications.

Issues that plague AD clinical trials include: participation limited to North America, Europe and Japan; science’s evolving understanding of the pathology; poor patient stratification; insensitive endpoints; lack of fully validated digital and blood biomarkers.

Build and activate regional and global clinical trial networks and design advanced clinical trials that reduce the time, cost and improve the quality of AD clinical trials.

Work with the other DAC initiatives to catalyze recruitment for clinical trials and development of reliable digital and blood biomarkers.
Clinical Trials Program

2021 Summary

GAP European Network

Design and Engage Sites

18 sites committed and approximately 25 more interested.

Scale w/Scottish NHS

Design Clinical Trial Referral System w/Scottish NHS

Currently negotiating MOU with Scottish NHS, Scottish memory clinics and Scottish/EUR trial network

Transatlantic Trials

Design Transatlantic Trials with Sponsors

In negotiation on 1 Therapeutic study and Biomarker study for use of NA/EUR Network

ROW Trials

Mapping additional countries to add to CT Network

In discussions with Site Networks in Australia, China, Japan, Singapore, South Korea
## Clinical Trials Program

### 2022 Milestones

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Finish recruiting clinical trials sites for EUR Network</td>
</tr>
<tr>
<td>Q2</td>
<td>Finished design of Transatlantic Biomarker Study</td>
</tr>
<tr>
<td>Q3</td>
<td>Begin negotiating subscriptions to Bio-Hermes II</td>
</tr>
<tr>
<td>Q4</td>
<td>Initiate Bio-Hermes II</td>
</tr>
<tr>
<td></td>
<td>Conclude MOU with Scottish Government and Scottish Sites</td>
</tr>
<tr>
<td></td>
<td>Finished negotiation of Transatlantic Therapeutic Study</td>
</tr>
<tr>
<td></td>
<td>Initiate Transatlantic Therapeutic Study</td>
</tr>
<tr>
<td></td>
<td>Finish mapping process and start inviting sites to CT Network in 4 countries</td>
</tr>
<tr>
<td></td>
<td>Hold digital and biomarker along side Lausanne IX.</td>
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Thank You

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