

Data Sharing In DIAN

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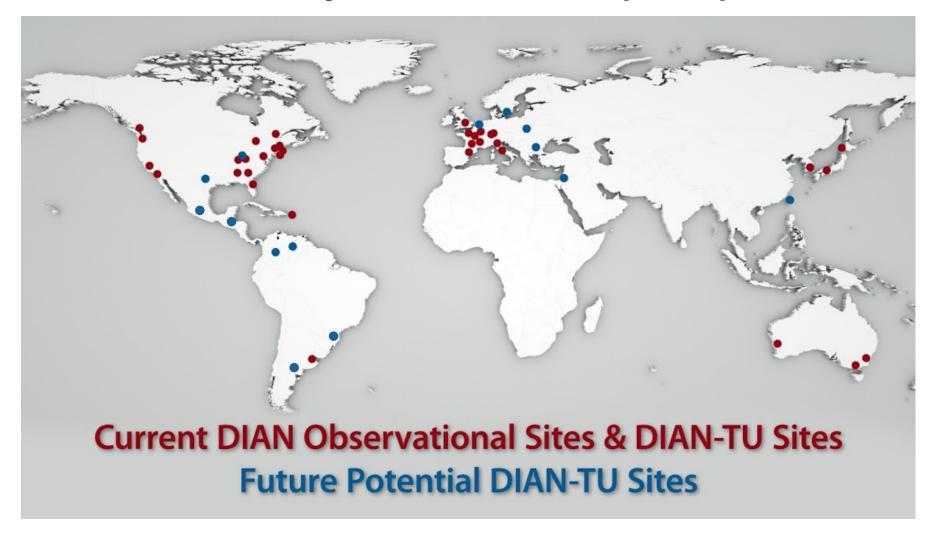






DIAN Observational and DIAN-TU Trial Sites

The DIAN Obs has currently enrolled over 550 participants.



Participant Entry Characteristics at Enrollment

N = 571* (Target 80% Asymptomatic, 20%	Asymptomatic 421 (73.7%)		Symptomatic 146 (25.6%)	
Symptomatic) (*Table based on 534 participants. 37 Mutations in Process)	392 with confirmed mutation status		140 with confirmed mutation status	
	200 (NC) (51.0%)	192 (MC) (46.2%)	10 (NC) (7.1%)	130 (MC) (92.9%)
Age, Mean (SD)	41.6 (12.1)	37.2 (9.6)	44.1 (12.8)	47.4 (9.2)
Gender (% Female)	117 (58.5%)	107 (55.7%)	6 (60.0%)	73 (56.2%)
Parental Age of Onset, Mean (SD)	47.2 (6.5)	48.5 (7.1)	47.9 (6.2)	45.6 (8.7)
Education, Mean (SD)	14.6 (2.6)	14.6 (3.0)	11.3 (4.0)	13.4 (3.0)
MMSE, Mean (SD)	29.2 (1.1)	29.1 (1.2)	28.0 (1.6)	19.2 (8.4)
ApoE4+ 1 E4	61 (30.5%)	56 (29.2%)	2 (20.0%)	32 (24.6%)
MC = Mutation Carrier: NC = N	3 (1.5%)	1 (0.5%)	0 (0.0%)	7 (5.4%)

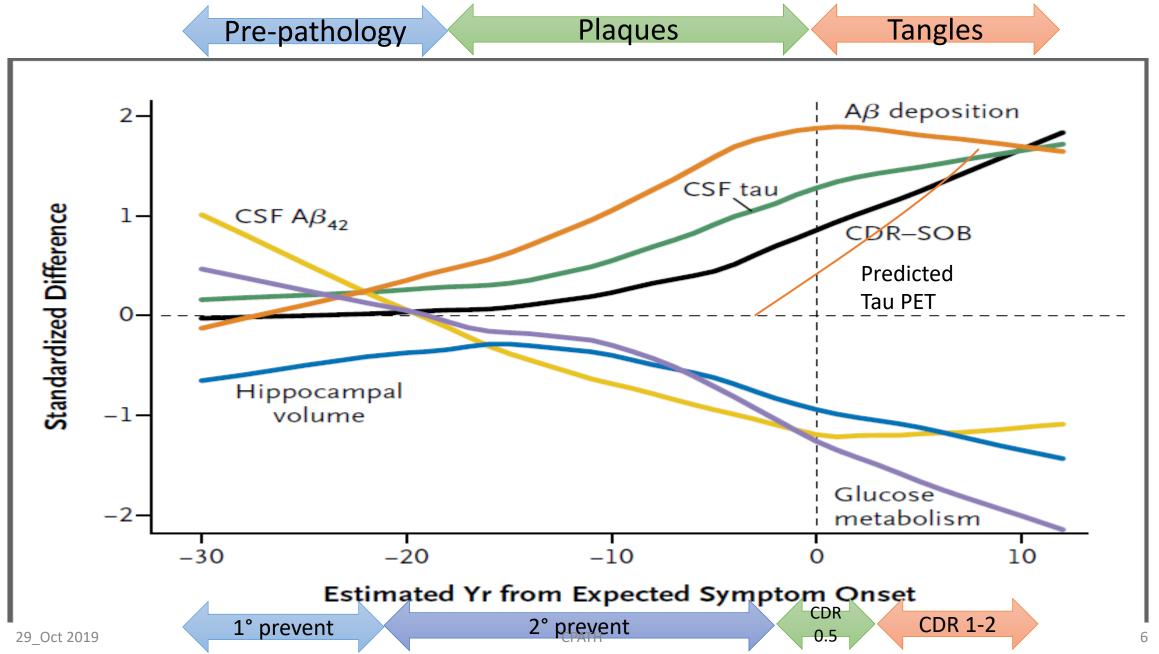
MC = Mutation Carrier; NC = Non-carrier

*Table statistics based on 534 participants with confirmed mutation data available as of 6/30/19. Of them 393 (73.6%) are mutation carriers(of these,CDR score is missing for 1), 141 (26.4%) are mutation non-carriers(of these,CDR score is missing for 1),

Data Sharing Experience (2019)

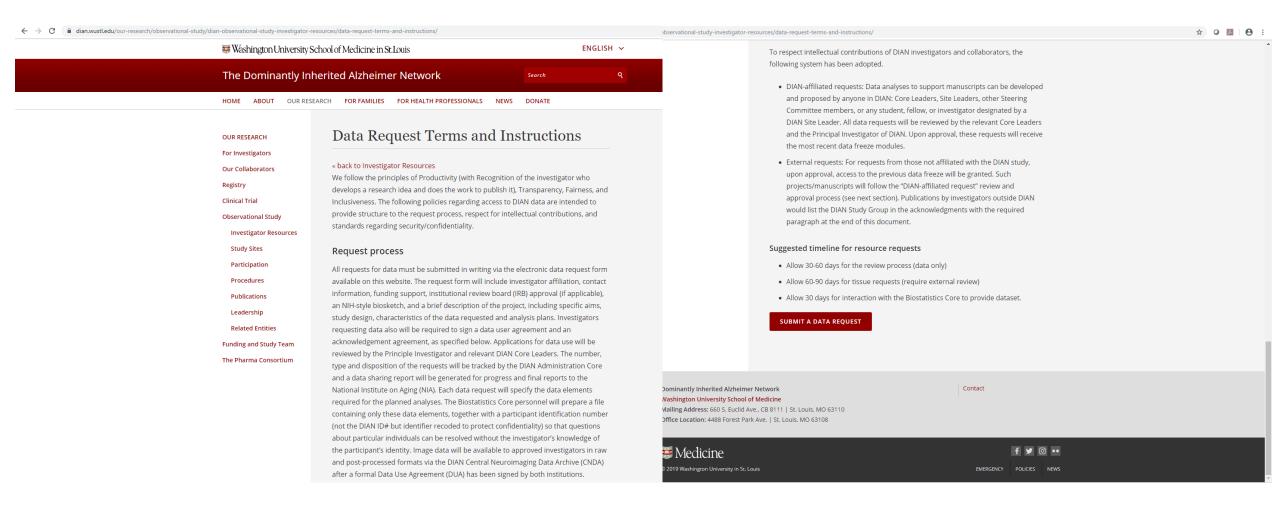
- 173 data requests granted (82% approval rate)
- 56 tissue requests granted (77% approval rate)
- 149 Publications related to DIAN data

Stages of Proteinopathy in ADAD



The DIAN; Bateman et. al NEJM 2012

Data Request process



https://dian.wustl.edu/our-research/observational-study/dian-observational-study-investigator-resources/

Comparison of Dominantly Inherited and Sporadic Alzheimer's Disease for regulatory consideration

	Dominantly Inherited AD	Sporadic AD	
Clinical presentation	Amnestic	Amnestic	
Cognitive deterioration	Memory, frontal/executive, generalized cognitive decline	Memory, frontal/executive, generalized cognitive decline	
MRI	Hippocampal atrophy and whole brain atrophy	Hippocampal atrophy and whole brain atrophy	
PIB PET	Cortex plus basal ganglia	Cortex	
FDG PET	Parieto-occipital hypometabolism	Parieto-occipital hypometabolism	
CSF Aβ 42	Decreased by 50%	Decreased by 50%	
CSF tau	Increased by 2-fold	Increased by 2-fold	

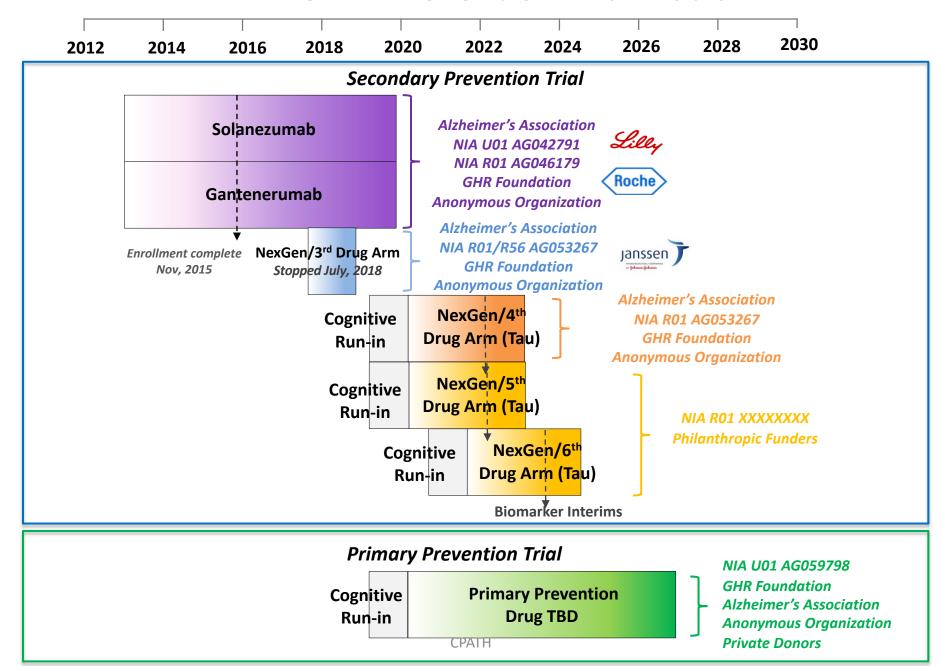
Scientific data supports a Dominantly Inherited AD trial as part of a drug registration package for both Dominantly Inherited and Sporadic AD.

CPATH

Trials Unit

Maximizing data sharing from prevention trials- DIAN and CAP

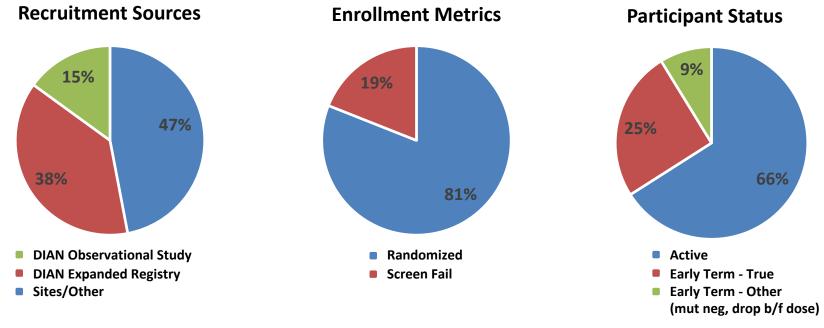
DIAN-TU AD Prevention Trial Platform





DIAN-TU-Trial: Current Status





Test Measure		Longitudinal Assessments per Participant	Quantity	Compliance Rate
Clinical Measures	CDR, CDR-SB, MMSE, FAS, GDS, NPIQ	5	≈1,000	100%
Cognitive Measures	Cogstate, Pencil / Paper	10-15	≈ 1,525	98%
Fluid Biomarkers	Plasma, Serum, CSF	4	≈ 1,450	99%
Imaging Biomarkers	MRI, PiB, AV-45, FDG, AV-1451	4	≈ 5,000	99%

Collaboration for Alzheimer's Prevention (CAP)

- Collaboration and coordination of prevention trial efforts
- Alzheimer's Association, National Institute of Aging, Fidelity Foundation, FDA,
 API, ADCS A4, and DIAN-TU
- Harmonization of biomarkers, clinical, and cognitive measures, and sharing of approaches for prevention efforts.
- Data and sample sharing with NIA funding, data and samples will be made available to qualified investigators per an approved resource sharing plan.

DIAN-TU's data and sample sharing principles:

- Protection of trial integrity
- Protection of participants (confidentiality of mutation status)
- > Scientific Advancement

- > Productivity
- > Transparency
- > Fairness
- > Inclusiveness

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PATH

Publication benefits to DIAN-TU trial Cores and investigators

- Baseline Data: Cores, site investigators, and trial pharma partners have the opportunity to publish in the first year (after enrollment is complete and data is frozen)
- Post-Randomization Data: Cores, site investigators, and trial pharma partners have the opportunity to publish in the first 18 months after drugs arms complete all necessary regulatory work
- After these periods, data is available to qualified investigators

Resources

Websites:

- DIAN & DIAN-TU: https://dian.wustl.edu/
- DIAN Expanded Registry: https://dian.wustl.edu/our-research/registry/

Contact Information:

- DIAN EXR email: dianexr@wustl.edu
- DIAN EXR Coordinator: 844-DIAN-EXR (844-342-6397)
- DIAN Observational Deputy Director 314-747-1940

The DIAN (NIH UF1AG032438)

The DIAN participants and family members
The Alzheimer's Association, ADAD Forum, DIAN Pharma Consortium



Argentina

Fundación para la Lucha contra las Enfermedades Neurológicas de la Infancia (FLENI), *Ricardo Allegri*

Australia

Mental Health Research Institute, Melbourne, *Colin Masters*Edith Cowan Univ , Perth, *Ralph Martins*Prince of Wales Medical Research Institutes, Sydney, *Peter Schofield*

Germany

Ludwig-Maximilians-Universität München, *Adrian Danek* University of Tübingen, *Matthias Jucker*

Japan: DIAN-Japan, Mori

Hirosaki University, *Mikio Shoji* Niigata University, *Takeshi Ikeuchi* Osaka City University, *Hiroyuki Shimada* University of Tokyo, *Kazushi Suzuki*

Korea

DIAN-Korea, JH Lee: Asan Medical Center, JH Roh

United Kingdom

Institute of Neurology, Univ College London, Martin Rossor

United States

University of Southern California, John Ringman
University of California, San Diego, Doug Galasko
Mayo Clinic, Jacksonville, Neil Graff-Radford
Indiana University, Bernardino Ghetti
Mass General Hospital/Brigham & Women's Hospital, Reisa Sperling
Washington University, Randall J. Bateman
Columbia University, Richard Mayeux
University of Pittsburgh, William Klunk
Butler Hospital/Brown University, Steve Salloway

DIAN-TU Administrative and Clinical Operations Team

Randall Bateman – Director and PI, Eric McDade – Associate Director

Sarah Adams, Stephanie Belyew, Erin Cattoor, David Clifford, Garland Edmonds, Molly Fitzgerald, Erica Fowler, Amanda Fulbright, Angela Fuqua, Kurtis Hanks, Ron Hawley, Dottie Heller, Latoya Jones, Michelle Jorke, Nicole Kelley, Paulette MacDougall, Jacki Mallmann, Tayona Mayhew, Karen McCann, Susan Mills, Julie Murphy, Jennifer Petranek, Anna Santacruz, Jessi Smith, Annette Stiebel, Shannon Sweeney, Linda Watkins-Imhof, Ellen Ziegemeier

DIAN-TU Cores

Administrative: Randall Bateman, Eric McDade and team

Biomarkers: Anne Fagan and team

Biostatistics: Chengjie Xiong, Guoqiao Wang and team

Cognition: Jason Hassenstab and team

Genetics: Alison Goate, Carlos Cruchaga and team

Imaging: Tammie Benzinger and team *Neuropathology:* Rick Perrin and team

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DIAN-TU Collaborators

Project Arm Leaders: Steve Salloway, Martin Farlow, Lon Schneider

Consultants: Berry Consultants, Cornelia Kamp, Cardinal Health

Regulatory Sciences,

Granzer Regulatory Consulting, IQVIA

DIAN-TU Therapy Evaluation Committee: Paul Aisen, Randall Bateman,

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Jeffrey Kelly, Virginia Lee, Cynthia Lemere, Eric McDade, Erik Musiek,

Erik Roberson, Matthias Staufenbiel, Robert Vassar

DSMB Members: Gary Cutter, Steve Greenberg, Scott Kim,

David Knopman, Kristine Yaffe

ADCS: Ron Thomas ATRI: Paul Aisen

University of Michigan: Robert Koeppe

Mayo Clinic: Clifford Jack

DIAN-TU Sites

Australia

Mental Health Research Institute, *Colin Masters*McCusker Foundation for AD Research, *Roger Clarnette*Neuroscience Research Australia, *William Brooks*

Canada

University of British Columbia, *Robin Hsiung*Sunnybrook Health Sci Centre, *Mario Masellis*McGill University, *Serge Gauthier*CHU de Quebec - Hôpital de l' Enfant Jésus, *Robert Laforce**

France

Hôpital Roger Salengro, Florence Pasquier
Hôpital Neurologique Pierre Wertheimer, Maité Formaglio
Groupe Hospitalier Pitie-Salpetriere, Bruno Dubois
Hôpital Charles Nicolle, David Wallon
Hôpital Purpan, Jérémie Pariente

Italy

IRCCS Centro San Giovanni di Dio Fatebenefratelli, *Giovanni Frisoni*

Azienda Ospedaliera Universitaria Careggi, Sandro Sorbi

*New sites pending approval

Spain

Hospital Clinic i Provincial de Barcelona, Raquel Sanchez-Valle

United Kingdom

The National Hospital for Neurology & Neurosurgery, *Catherine Mummery*

United States

University of Alabama, Birmingham, Erik Roberson
USC Keck School of Medicine, Sonia Pawluczyk*
University of California, San Diego, Doug Galasko
Yale University, Christopher van Dyck
Advocate Lutheran General Hospital, Darren Gitelman*
Indiana University, Jared Brosch
Emory University, James Lah
Washington University, Joy Snider
Columbia University, Lawrence Honig
University of Pittsburgh, Sarah Berman
University of Puerto Rico, Ivonne Jimenez-Velazques
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University of Texas Southwestern Medical Center, Diana Kerwin*
University of Washington, Seattle, Suman Jayadev