IGAP Identifies New Genes Implicated in Alzheimer's Disease



The International Genomics of Alzheimer's Project (IGAP) has identified five new genes that increase risk for Alzheimer's Disease, as well as confirmed the association of another 20 genes and AD risk. The consortium has also found that tau related mutations could play an earlier role in disease development than previously understood. IGAP is led by Gerard Schellenberg here at the University of Pennsylvania Perelman School of Medicine. A large portion of the data used in this research came from the Alzheimer's Disease Genomics Consortium, which is part of IGAP.

Both the <u>National Institute on Aging</u> and <u>Penn</u>

<u>Medicine News</u> have written press releases around

this accomplishment. In Penn Medicine's press release, titled "Largest-Ever Alzheimer's Gene Study Reveals Five New Genes that Increase Risk", Dr. Schellenberg stressed the importance of collaborating on an international scale in order to find results that are meaningful. This analysis in particular analyzed genes in 94,437 individuals, and a sample size like this one is extremely important in finding rare variants.

The summary data from the analysis can be found at www.niagads.org/datasets under Accession Number NG00075 – IGAP Rare Variant Summary Statistics – Kunkle et al. (2019).

New Datasets available at https://www.niagads.org/datasets

NIAGADS has added a number of new datasets, bringing the total number of datasets in NIAGADS to 59, with over 59,000 samples and 33 billion genotypes.

NG00075

IGAP Rare Variant Summary Statistics – Kunkle et al. (2019)

NG00077

Genetic analyses of patients with CTE

NG00078

IGAP APOE-Stratified Analysis Summary Statistics – Jun et al. (2015)

NG00079

Northshore Exome Chip

NG00080

Miami Exome Chip

NG00081

CHOP Exome Chip

NG00082

UAB/HudsonAlpha Families with Neurodegenerative Diseases

NG00085

ExomeChip - WashU

Visit Us at AAIC!

NIAGADS is pleased to be exhibiting at the Alzheimer's Association International Conference this summer in Los Angeles, CA. The conference will take place from July 14-18.

The NIAGADS booth will have information about our datasets, a Genomics Database demonstration, and the opportunity to ask the NIAGADS team questions.

Come visit us at Booth #534!

We look forward to seeing you there.

New Funding Opportunity Announcement for Alzheimer's Machine Learning Research:

The NIH has announced a new funding opportunity (PAR-19-269) inviting applications around artificial intelligence (AI), machine learning (ML), and/or Deep Learning (DL) approaches that identify gene variants

that contribute to risk of or protection against Alzheimer's disease and related dementias (ADRD). Submissions open on September 5, 2019, and applications are due on October 5, 2019.

The FOA can be viewed here: https://grants.nih.gov/grants/guide/pa-files/PAR-19-269.html