

Genetic Association Information Network (GAIN)

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Research Areas



Tool Development



Biomarker Research

Diagnostic, Genomic Biomarker



Data-Sharing Enabler

At a Glance

- Status: **Completed Consortium**
- Year Launched: **2006**
- Initiating Organization: **Foundation for the National Institutes of Health**
- Initiator Type: **Nonprofit foundation**

Abstract

The Genetic Association Information Network (GAIN) supports a series of genome-wide association studies (GWAS) designed to identify specific points of deoxyribonucleic acid variation associated with the occurrence of a particular common disease. Initially focusing on six major common diseases, GAIN focused on combining the results with clinical data to create a significant new resource for genetic researchers.

Mission

GAIN is a public-private partnership managed by the Foundation for the National Institutes of Health, Inc. (FNIH) and includes partnerships with NIH and the private sector. Investigators from existing case-control or trio (parent-offspring) studies were invited to submit samples and data on roughly 2,000 participants for assay of 300,000 to 500,000 single nucleotide polymorphisms designed to capture roughly 80 percent of the common variation in the human genome. Specific genes involved in disease processes can be identified once particular areas of the genome are associated with disease occurrence.

Consortium History

November 2006: GAIN kickoff meeting and analysis workshop

October 2007: Second GAIN analysis workshop

November 2008: Third and final GAIN analysis workshop

Structure & Governance

Managed by FNIH, GAIN combines the resources and expertise of several public and private entities to streamline the genetic research process. The program's protocols for protecting participant privacy and confidentiality have served as a model for similar studies across the scientific community.

GAIN has both an Executive Committee and Data Use Review Board, which reports to the FNIH Board of Directors. The GAIN Steering Committee reports to both the Executive Committee and Data Use Review Board. The Steering Committee receives input from the Partner Advisory Committee and provides oversight to the peer review committees, technical advisory group, genotype and analysis working groups, and data access committee.

In addition to these governance committees, there are dedicated government and FNIH staff, including the following:

GAIN Project Director for FNIH

David Wholley, M.A.

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NHGRI GAIN Staff

Teri Manolio, M.D., Ph.D.

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Financing

The FNIH raised \$26 million for the network in cash and in-kind resources, primarily from Pfizer Inc. and Affymetrix, Inc.

Data Sharing

Now that the GAIN initiative has officially concluded, the resulting data from the GAIN studies have been deposited into the database of Genotype and Phenotype (dbGaP) within the National Library of Medicine at NIH for the broad use of the research community. Access is controlled by the GAIN Data Access Committee.

Impact/Accomplishment

In 2007, GAIN completed a program to genotype existing research studies in six major common diseases and to combine the results with clinical data to create a significant new resource for genetic researchers.

Links/Social Media Feed

Homepage	http://www.genome.gov/19518664
Other website	http://www.fnih.org/work/past-programs/genetic-association-information-network-gain

Points of Contact

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