

Benjamin Neale, PhD, Biography:

Benjamin Neale is an assistant professor in the Analytic and Translational Genetics Unit at Massachusetts General Hospital (MGH), assistant professor in medicine at Harvard

Medical School (HMS), and an associated researcher at the Broad Institute. Neale is strongly committed to gaining insights into the genetics of common, complex human diseases. Neale and Mark Daly, both of whom are associated with the Broad Institute and MGH, lead the ADHD Initiative, a collaborative effort that focuses on genomic studies of attention deficit hyperactivity disorder (ADHD).

Neale's research and training have focused heavily on statistical methodology. He has analyzed genetic data from large-scale studies of patients with ADHD, autism, age-related macular degeneration, type 2 diabetes, and metabolic disorders. Neale also analyzed data from the first ADHD genome-wide association study (GWAS) meta-analysis, which combined the results of four studies to boost statistical power. Neale contributed to the development of software tools such as PLINK, one of the most frequently used packages for GWAS analysis. In addition to his roles at both the Broad Institute and MGH, Neale is the head of the ADHD psychiatric genetics GWAS analysis committee and an active member of the broader Psychiatric GWAS Consortium analysis committee, which is charged with analyzing all psychiatric data from these large-scale genome-wide association studies. Neale also led the design of the exome chip, a genotyping array that captures rare coding variation in a cost-effective manner. To date, over 1.5 million exome chips have been sold.

Neale studied at the University of Chicago and Virginia Commonwealth University, earning a B.Sc. in genetics. He went on to earn his Ph.D. in human genetics from King's College in London, UK. Neale completed his postdoctoral training in Daly's laboratory at Massachusetts General Hospital. In addition to many local research collaborations, he also serves as advisor and analyst to international genetic research consortia on psychiatric diseases.