Autism Speaks and BGI to complete whole genome sequencing on 10,000 with autism

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Autism Speaks, the world's largest autism science and advocacy organization, and BGI, the largest genomic organization in the world and a global leader in whole genome sequencing, jointly announce their partnership to create the world's largest library of sequenced genomes of individuals with autism spectrum disorders (ASD). Using the Autism Speaks Autism Genetic Resource Exchange (AGRE), this collaboration will perform whole genome sequencing on more than 2,000 participating families who have two or more children on the autism spectrum. The data from the 10,000 AGRE participants will enable new research in the genomics of ASD, and significantly enhance the science and technology networks of both Autism Speaks and BGI. In addition, Autism Speaks and BGI will collect and sequence genome samples from individuals in China.

"This collaboration will transform the field and greatly accelerate basic and translational research in autism and related developmental disabilities," stated Autism Speaks Vice President for Scientific Affairs Andy Shih, Ph.D. "This collection of sequenced genomes will facilitate new collaborations engaging researchers around the world, and enable public and private entities to pursue pivotal research."

The Autism Speaks BGI collaboration will be conducted over a two-year period. The initial pilot sequencing of 100 genomes will be directly funded by the Autism Speaks science portfolio. Additional funding will be secured from government, donors, and public and private sources.

"We welcome the opportunity to collaborate with Autism Speaks on this groundbreaking research project," stated Prof. Yang Huanming, Chairman of BGI. "Having sequenced more than 10,000 whole human genomes to date, and given our state-of-the-art sequencing and bioinformatics technologies, we are excited about the potential to have a meaningful impact on advancing new treatments for autism spectrum disorder."

"Piece by piece, we are discovering genetic mutations that can cause autism and we have learned from examples involving single gene disorders associated with autism, such as Fragile X and Rett Syndrome, that genetic findings substantially increase our understanding of the underlying biology of autism," said Geraldine Dawson, Ph.D., Autism Speaks chief science officer. "Our ultimate goal is for the information we will gain from whole genome sequencing to contribute to the development of novel effective treatments to improve the lives of individuals impacted by autism."

Provided by Autism Speaks