

BioISI Research Seminar

Neurobehavioral traits in family members inform gene discovery in ASD



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When: June 27, Wednesday - 11h30

Where: Building C1 Room 1.3.20

Autism spectrum disorder (ASD) is highly prevalent and has a complex genetic architecture. The ASD phenotype is multi-dimensional and variable. Furthermore, it has been demonstrated that neuropsychiatric (NPD) and neurodevelopmental (NDD) disorders are part of a connected molecular system. There may be up to 4000 genes contributing to their etiology. Individuals with ASD harbor several different risk alleles and symptoms overlap across NPD and NDD. They are not single biological identities, rather a spectrum of conditions. We tried to incorporate phenotypic and family history data into our genomic analysis and discovered different sets of genes that can potentially play a big role in the pathophysiology of ASD. This is one of the first steps towards dissecting a polygenic and multi-dimensional condition to clarify its underlying biology. During the seminar, I will explain in detail the methodology of this novel approach and the challenges it carries.