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Tata Institute for Genetics and Society announces strategic alliance to advance research in rare genetic disorders

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New partnership poised to drive groundbreaking advancements in rare disease research



The Avestagenome Project International Pvt. Ltd. (AGENOME) & Avesthagen Limited, in partnership with the Bengaluru-based Tata Institute for Genetics and Society (TIGS), have signed a Strategic Alliance Agreement to advance research and development in rare genetic disorders, with a focus on the Zoroastrian Parsi community.

This partnership aims to deepen the understanding and develop targeted solutions for conditions such as congenital deafness, muscular dystrophies, Parkinson's disease, multiple sclerosis and other rare disorders requiring further investigation, ultimately contributing to the development of new products that benefit the global community.

The research partnership will leverage AGENOME's extensive Biobank, which holds 4,700 blood samples from the Zoroastrian Parsi community, a valuable resource for studying genetic diseases. Of these, 350 samples have already been sequenced, marking a critical step toward uncovering genetic markers that contribute to rare disorders. This Biobank, combined with TIGS' expertise in functional genomics and molecular biology, will help drive innovations in early diagnosis and therapeutic interventions.

Additionally, AGENOME's prior research partnership with the National Centre for Biological Sciences (NCBS) on neurological disorders such as Schizophrenia and Alzheimer's disease has already laid a strong foundation in understanding complex genetic conditions. The current partnership with TIGS further strengthens this effort, bringing together cutting-edge research in multiple disease areas. By integrating insights from both partnerships, this initiative is poised to make significant contributions to the broader field of genetic research and disease management.

Key focus areas of this research partnership include- Leveraging genome data to identify novel and relevant markers for developing diagnostic and screening assays (using CRISPR technologies) at a population scale; Substituting enzyme replacement therapy (ERT) with the development of mRNA-based treatments where applicable; Jointly assessing the potential for in vivo gene therapy for diseases relevant to the population based on genome data insights; and Identifying genetic variants that influence drug efficacy and safety, contributing to advancements in precision medicine.