

Why do Parsis live longer?

Gene Study To Reveal Insights Into Longevity, Incidence Of Cancer

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Bangalore: What explains longevity of life among Parsis? And why is it that breast cancer is high among Parsi women? Come 2011 and we would have some interesting answers from Avesthagen, the Bangalore-based life sciences company, which is doing the unique work of profiling the genetic and genealogical structure of the Parsi community that now has only 67,000 members.

Scientists familiar with the project told TOI that Avesthagen which had initiated a comprehensive study in 2007, given that the community is one of the smallest in the world, is expecting to collect around 20,000 blood samples of Parsis over the next few months. The study is expected to be completed next year.

"A good study of the samples in addition to other things could help us understand the incidence of breast cancer among Parsi women, diabetes and even longevity. We expect something significant by way of results in 2011,"

GENE JUNCTION
Understanding the gene structure and medical history of a single population like Parsis can give insights into understanding human genome in general and the genomes of in-bred, migratory populations in particular. Iceland is said to have a data base on genetics



said Dr Villoo Morawala-Patell who is the brain behind the project and is overseeing the work of nearly 50 scientists.

The scientists are creating a genetic, genealogical and medical database of the Parsi population that has the unique characteristic of not marrying outside the community.

Scientists say the effort to map hereditary diseases that are related to the Parsi genes and bloodline would

also benefit communities worldwide. "Given that the Parsi community has a mixed eastern and western texture, their genetic study would indicate diseases connected to certain genes in other populations too. Their blend of east and west is why this project is under way. The fact that they are also an in-bred population makes understanding of genetics associated with such a population easier. The results

of such a research of course could apply to many populations," scientists said. The project has interested biotech and life sciences players in both the private and public sector who would like to help in collecting and understanding data. Avesthagen has to decide to what extent it would like to further such partnerships. An estimate by scientists put the cost of the project over a five-year period at \$30 million and may be \$50 million more if the project brought in participation of other private and public institutions and took it deep into the dynamics of genetics, the correlation with diseases and environment.

Scientists also say that the project would reveal at some stage the connections between certain gene types and long life among the Parsis, who live up to 90-95 years of age, and incidence of breast cancer among their women. The understanding of such genes would lead to formulation of the right kind of gene therapies, diagnostics, right drug development and accurate application of medicine.

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