



Press Release

CCMB, Hyderabad & BSIP, Lucknow

Genetic history of the Roman Catholic populations of West Coast India

The west coast of India harbours a rich diversity of various ethno-linguistic human population groups. The Roman Catholic is one such distinct group, whose origin is much debated. Some historians and anthropologists relate them to ancient group of Gaud Saraswat. Others believe they are members of the Jews Lost Tribes in the first century migration to India. Till date, no genetic study was done on this group to infer their origin and genetic history.

The first high throughput study was conducted by Dr Kumarasamy Thangaraj, Chief Scientist, CSIR-Centre for Cellular and Molecular Biology (CCMB), & Director, Centre for DNA Fingerprinting and Diagnostics, Hyderabad; and Dr. Niraj Rai, Senior Scientist, DST-Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow. Researchers analysed DNA of 110 individuals from Roman Catholic community of Goa, Kumta and Mangalore. They compared the genetic information of the Roman Catholic group with previously published DNA data from India and West Eurasia. They put this information alongside archaeological, linguistic and historical records. All of these helped the researchers fill in many of the key details about the demographic changes and history of the Roman Catholic population of South West of India since the Iron Age (until around 2,500 years ago), and how they relate to the contemporary Indian population.

They concluded that the Roman Catholics of Goa, Kumta and Mangalore regions are the remnants of very early lineages of Brahmin community of India, majorly with Indo-European-specific genetic composition. This study found consequences of Portuguese inquisition in Goa on the population history of Roman Catholics. They also found some indication of Jewish component. This finding has been published in "[Human Genetics](#)" on 23 August 2021.

"Our genetic study revealed that majority of the Roman Catholics are genetically close to an early lineage of Gaur Saraswat community", said Dr. Kumarasamy Thangaraj, senior author of the study. He further added, "More than 40 percent of their paternally inherited Y chromosomes can be grouped under R1a haplogroup. Such a genetic signal is prevalent among populations of north India, middle East and Europe, and unique to this population in Konkan region".

"This study strongly suggests profound cultural transformations in ancient South West of India. This has mostly happened due to continuous migration and mixing events since last 2500 years", said Dr. Niraj Rai, co- corresponding author of the paper.

"The origins of many population groups in India like the Jews and Parsis are not well-understood. These are gradually unfolding with advances in modern and ancient population genetics. Roman Catholics is one of them with much debated history of origin based on inferences of anthropologists and historians", said Mr. Lomous Kumar, first author of the paper.

"This multi-disciplinary study using history, anthropology and genetics information have helped us in understanding the population history of Roman Catholics from one of the most diverse and multi-cultural region of our country", said Dr. Vinay K Nandikoori, Director, Centre for Cellular and Molecular Biology, Hyderabad.

The other institutes involved in this study are Mangalore University, Canadian Institute for Jewish Research, and Institute of Advanced Materials, Sweden.