

## **DBT-NIBMG studies evolutionary history of Indian populations**

New Delhi, Feb 24: India has a rich geographical, linguistic and ethnic diversity. The populations of India speak languages that belong to four major language families. These are Indo-European, Dravidian, Austro-Asiatic and Tibeto-Burman respectively. The Indo-European speakers live mostly in North India and the Dravidians mostly reside in South India. The Tibeto-Burman speakers live in Northeast India. The Austro-Asiatic speakers have a scattered distribution in Central and East India, and they are exclusively tribal.



The Indian populations of present times emerged from mixtures among several ancestral populations that lived in the past. Four major ancestral populations which played important roles in the genetics of extant Indian populations have been identified. These are the Ancestral South Indians (ASI), Ancestral North Indians (ANI), Ancestral Austro-Asiatic and Ancestral Tibeto-Burman populations.

The ANI population was found to be genetically close to West Asians, Central Asians and Europeans. It was the ancestral population that had a major contribution in the genetic makeup of most Indo-European speaking groups of India. The ASI population was genetically different from the ANI population and it was the major contributor to most Dravidian-speaking groups. The Ancestral Austro-Asiatic and Ancestral Tibeto-Burman populations had major contributions in Austro-Asiatic and Tibeto-Burman speakers, respectively. The Andaman archipelago was populated by an ancestral population that was genetically distinct from these four ancestral populations mentioned above.

The Austro-Asiatic speakers in India have a fragmented distribution and pretty small census size today. But there remains a possibility that they had a widespread distribution in the past because they have been suggested to be the earliest inhabitants of India on the basis of mitochondrial DNA evidence. Linguistic evidence suggests that the ancestors of the Dravidian speakers also covered a larger geographical area of South Asia, although they are now confined to South India.

A recent study has found that the Ancestral Austro-Asiatic and Ancestral South Indian (ASI) populations were genetically closer than other ancestral populations. The genetic similarity between these two ancestral populations along with their possible widespread presence in

ancient India, has motivated researchers at DBT-National Institute of Biomedical Genomics to try and find out about their evolutionary history, as it will help in understanding the peopling of India better. It is worth investigating if these two populations had mixed in recent times after being separated for long or they had recent common ancestry.

Contact Person & Contact Details:

Dr. Arghya Dey (Email: [ad2@nibmg.ac.in](mailto:ad2@nibmg.ac.in), [am1@nibmg.ac.in](mailto:am1@nibmg.ac.in))

Link: <https://www.nibmg.ac.in/>