University of Basel
Department of Biomedical Engineering

Seminar Series:
Latest Breakthroughs in Biomedical Engineering Research

Location: DBE Science Lounge, Hegenheimermattweg 167C, 4123 Allschwil
Date & Time: Thursday 03.12.2026 | 16:30 – 17:30
Host: Dr. Iris Schulz

Following the steps of Native Americans: Using Y-chromosomal data to infer ancient migration patterns through South America

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Abstract

The DNA of us modern individuals harbors information on our ancestors and the paths they took across and within continents. Although the study of prehistoric migration routes has fascinated researchers for decades, the migratory history of the initial settlers of South America is still a subject of ongoing debate due to extensive population restructuring events caused by the European colonization. In this talk, I will present how we used Y-chromosomal genetic information of Latin Americans to infer distinct migration routes of the initial settlers of South America.

Biosketch

Zehra Köksal is a research associate at the Department of Forensic Genetics within the Institute of Forensic Medicine in Basel, where she is involved in forensic genetic case work, research and development. Zehra received her PhD in Forensic and Population Genetics from Copenhagen University in 2024, where she applied and developed laboratory and computational methods to study South American populations and to determine biogeographic ancestries of individuals from admixed populations for forensic applications. In 2025, Zehra was a Postdoc at Linköping University and conducted research on genotype imputation and forensic phenotype prediction.