Cite this as**:** Jun LIU, Li JIANG, Yongqiang KONG, Chunnian WANG, Shuo FENG, Xuanzhu CHEN, Deqin ZHANG, Chuanchao WANG, Caixia LI. Genetic structure and admixture of the Yi and Qiang in southwestern China. Journal of Zhejiang University-SCIENCE B, 2026, 27(4):402-415. https://doi.org/10.1631/jzus.B2400576

JZUS-B

Genetic structure and admixture of the Yi and Qiang in southwestern China

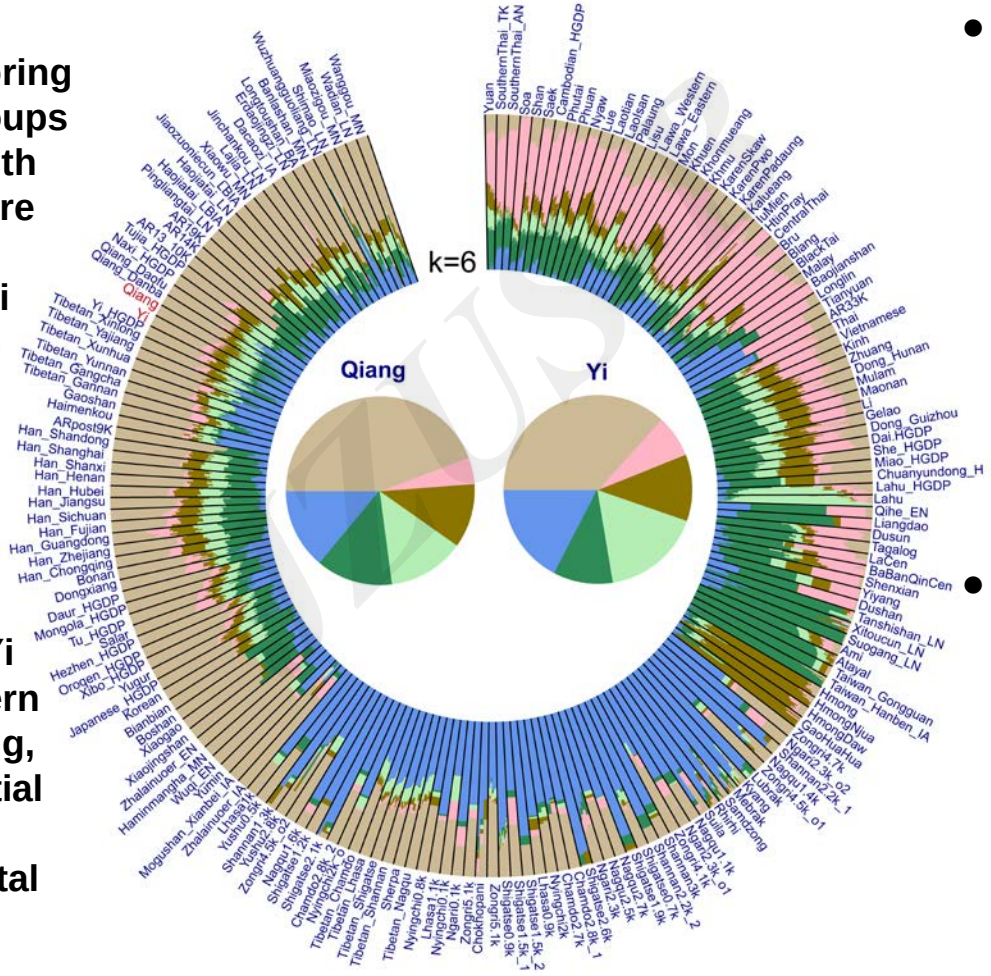
Key words: Tibeto-Burman; Genetic diversity; Genetic structure; Population genetic relationships

Research Summary

This study deciphered the genetic architecture of Qiang and Yi populations in the Tibetan-Yi Corridor through whole-genome sequencing:

- **Genetic Affinity:** Closest to neighboring Tibeto-Burman groups (Tujia/Tibetans), with Qiang showing more Altaic-related components and Yi linking to southern Hmong-Mien populations

- **North-South Differentiation:** Yi retain more southern ancestry than Qiang, indicating differential gene flow from southeastern coastal populations

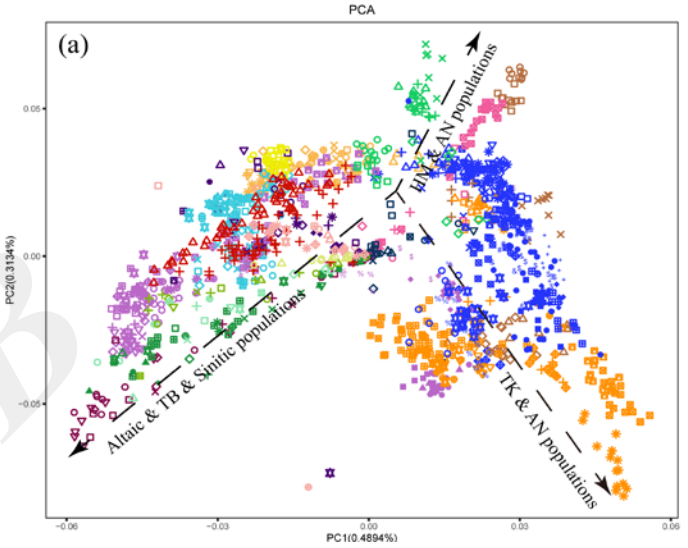


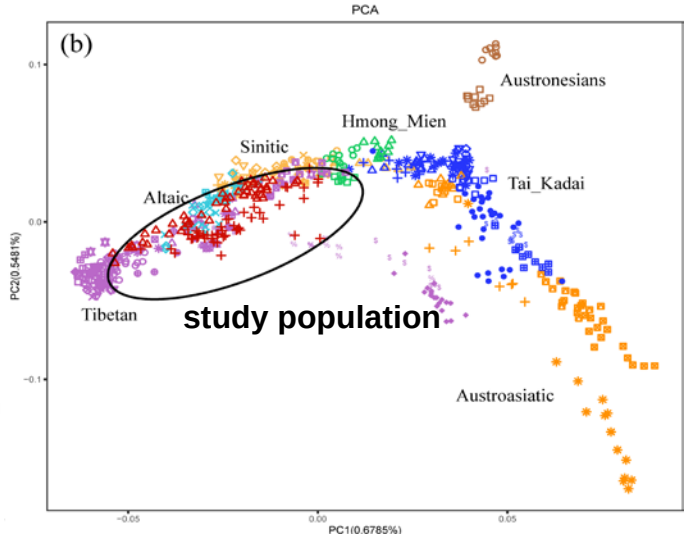
- **Ancestral Origins:** Dominant ancestry from Yellow River millet farmers, supplemented by Neolithic southern coastal components, supporting northern origin hypothesis of Sino-Tibetans

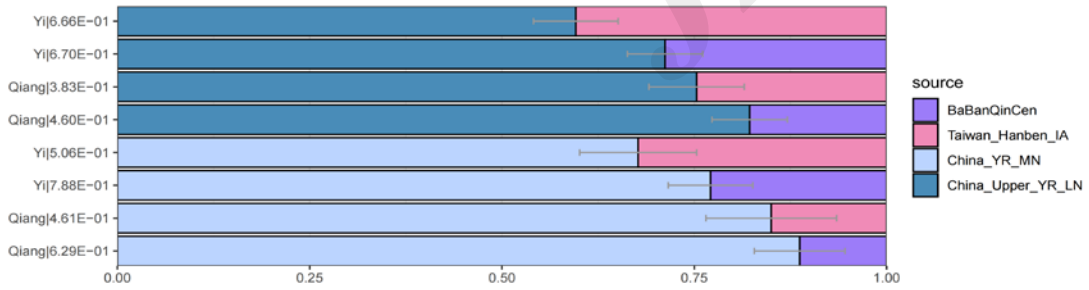
- **Forensic Value:** Defines Tibeto-Burman genetic signatures and interpopulation relationships, providing a foundational framework for East Asian forensic genetics.

Innovation points

- **Systematic delineation of fine-scale genetic structure in core Tibeto-Burman groups.**
- **Quantitative assessment of Neolithic agriculturalists' genetic contributions**
- **Proposed bidirectional "Northern Dominance + Southern Introgression" model**







IZUS-B