**Mitochondrial DNA Variation in Altaian Populations, Putative Progenitors of Eurasian and Native American Populations**

Theodore G. Schurr1, Sergey I. Zhadanov1,2, Marina Gubina2, and Ludmilla P. Osipova2

1Department of Anthropology, University of Pennsylvania, Philadelphia, PA; 2Institute of Cytology and Genetics, Siberian Branch, Russian Academy of Sciences, Novosibirsk, Russia

**SUMMARY**

The Altai Mountain region has recently been suggested as the homestead for modern Siberian and Native American populations. We present molecular genetic data from Mitochondrial DNA (mtDNA) haplogroups (A, B, F, G, H), which suggest a genetic link between the Altaian and the indigenous Andean, Siberian, and Native American populations. We also propose that the Altaian populations are a possible source for the origin of the Amerindian populations. Our results indicate that about 75% of Southern Altaian mtDNA haplogroups belong to East Eurasian mtDNA haplogroups C and D, and that the Altaian populations have a high frequency of the maternal lineage C in the northern part of the region.

**RESULTS**

We surveyed 350 Altaian populations by using mtDNA haplogroups A, B, F, G, H, and K. The majority of the Altaian populations have a high frequency of haplogroup A (75%), which is known to be a maternal lineage of the Amerindian populations. The Altaian populations also have a high frequency of haplogroup B (30%), which is known to be a maternal lineage of the Andean populations.

**CONCLUSIONS**

Our results support the hypothesis that the Altaian populations are a possible source for the origin of the Amerindian populations. Further studies are needed to investigate the genetic relationship between the Altaian and the Andean populations.

---

**Figure 5. Northern Altaians from Tandoshka and Biika Villages**

**Figure 6. East Eurasian haplogroup frequencies in Altaiian populations.**

**Figure 7. East Eurasian haplogroup frequencies in Altaiian populations.**

**Figure 8. East Eurasian haplogroup frequencies in Siberian populations.**

**Figure 9. East Eurasian haplogroup frequencies in Siberian populations.**

**Figure 10. Photo of the Birks Monastery, the Tuchalkash Aslan, Northern Altai Republic.**