

## **Community engagement, paleogenomics and evolutionary histories of indigenous peoples of North America**

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Indigenous communities of the Americas have experienced difficult histories with science and some continue to have antagonistic relationships with scientists today. For example, the Kennewick Man controversy and the lawsuit resulting from the misuse of blood samples collected from the Havasupai tribe for genetic research. As a result, indigenous peoples are underrepresented in the genomics field and may not share the benefits of scientific research. To help resolve this problem, I discuss my research program efforts to broaden participation in genomics and conduct scientific research in a way that complements traditional knowledge, i.e., within an indigenous framework. With a community-based approach, I've formed mutually beneficial partnerships with indigenous communities in western North America and have addressed questions of evolutionary history using a paleogenomic approach. Specifically, we focus on using paleogenomic data to infer the early peopling of the Americas as well as the effects of European colonization on genomes of indigenous people as a result of the different environment that was caused by European contact. Additionally, I discuss efforts to engage indigenous community members in genomic research with the summer internship for indigenous peoples in genomics program (SING).