Studying those who Study Us
Anthropologists, Geneticists, & Indigenous Peoples

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Situating Myself
An Indigenous-feminist accounting for history & my research path

The Big Sioux River runs through my childhood home town on the Flandreau Santee Sioux reservation.

My famous ancestor, Te-Oyate-Duta (His Red Nation) or “Little Crow.” He led a Dakota War against settlers in Minnesota in 1862.

38 Dakota men & boys hung Dec. 26, 1862, Mankato, MN. Largest mass execution by U.S.
Formative Theorists

American Indian Convocation scholars. The early days of Native American Studies Princeton 1970

Published: 1969

American Indian Movement (AIM) leaders, Russell Means and Dennis Banks

Published: 1967

Red School House

St. Paul, Minnesota

AIM Survival School had a culture-based curriculum, founded 1972
19th century race science hierarchy of man

20th century race & colonial science

1939: German scientist measures Tibetan woman’s cranium. He advised Nazi doctors on racial science. Nazi scientists took lessons from research & methods of respected American anthropologists who perfected their craft on Native American bones.

Canada authorized nutritional experiments on Aboriginal people in Northern Manitoba and in children in residential schools across Canada in the 1940s and 50s. Some subjects were clearly starving.
Who gets to gaze at others?
Who gets to study?
Who/what gets studied?
Who gets to “play God,” standing everywhere and nowhere simultaneously?
Who gets to claim “objectivity”? (e.g. Donna Haraway’s “God Trick”)

If it’s not settler science telling you it’s more rational, it’s the state with their civilizing citizenship projects, or the church with their civilizing Christian projects. Evangelize, evangelize, evangelize!
21st century Colonial science retains 19th c. ideas

Ideally, they would be living in the same place as their ancestors did centuries ago. They should have been relatively isolated from immigration from surrounding groups who have moved into the region recently. They also should retain some of their ancestors’ ways of life, be it language, marriage patterns, or other cultural attributes. In other words, what we want are indigenous people.

Spencer Wells (2007), Genographic Project Director
Summer internship for INdigenous peoples in Genomics (SING)
Canada 2019 Participants in the lab

Indigenous peoples as SCIENTISTS in order to COLLABORATE & GOVERN
Bioinformatics
Indigenizing & Decolonizing Genomics

L to R: Dr. Katrina Claw (Navajo/Diné) UColorodo, Denver; Dr. Francine Gachupin (Jemez Pueblo), U Arizona; Dr. Kim TallBear (Sisseton-Wahpeton Dakota) UAlberta; Dr. Naniba’a Garrison (Navajo/Diné) University of Washington

Indigenous Genomics: Reclamation of our science

- Education
- Ceremony and protocol
- Asking better questions
- Asking different questions
- Everyone and every thing matters
- Making our voices heard
GE3LS & ELSI discussions
An International SING Consortium
36 participants, 2 cohorts (2018 & 2019), Indigenous nations across Canada, US (2), Australia (1)
SING USA

>120 participants

Across 7 cohorts

Indigenous nations across the US, Canada, New Zealand
SING Canada Workshop Themes
The SING workshops in Canada have themes reflective of the host and host institutions’ specialty

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Central Theme</th>
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<tbody>
<tr>
<td>2018</td>
<td>Simon Fraser University</td>
<td>Clam and Conservation genomics</td>
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<tr>
<td>2019</td>
<td>University of Alberta</td>
<td>Genomic aspects of Chronic Wasting Disease (CWD)</td>
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<tr>
<td>2020 (Jan)</td>
<td>University of Waikato, New Zealand</td>
<td>SING Global meeting</td>
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<tr>
<td>2020 (July)</td>
<td>University of Alberta</td>
<td>H. Pylori &amp; the microbiome</td>
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<tr>
<td>2021</td>
<td>Concordia &amp; McGill Universities</td>
<td>Epigenetics &amp; intergenerational trauma</td>
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<tr>
<td>2022</td>
<td>Simon Fraser University &amp; Bamfield Marine Sciences Centre (tentative)</td>
<td>Salmon Genomics</td>
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# SING USA Workshop Themes

The later SING workshops in the US have had a theme that was reflective of the host and host institutions’ specialty.

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<thead>
<tr>
<th>Year</th>
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<tbody>
<tr>
<td>2011</td>
<td>University of Illinois, Urbana-Champaign</td>
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<tr>
<td>2013</td>
<td>University of Illinois, Urbana-Champaign</td>
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<td>2014</td>
<td>University of Texas, Austin</td>
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<tr>
<td>2015</td>
<td>University of Illinois, Urbana-Champaign</td>
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<tr>
<td>2017</td>
<td>University of Arizona (Tucson)</td>
<td>Cancer Genomics &amp; Personalized Medicine</td>
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<tr>
<td>2018</td>
<td>University of Washington (Seattle)</td>
<td>Pharmacogenomics &amp; Repatriation</td>
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<tr>
<td>2019</td>
<td>University of Illinois, Urbana-Champaign</td>
<td>Epigenetics, Transcriptomics &amp; Historical Trauma</td>
</tr>
</tbody>
</table>
Chaco Canyon Dig Unearths Ethical Concerns
Katrina Claw, Dorothy Lippert, Jessi Bardill, Anna Cordova, Keolu Fox, Joseph Yracheta, Alyssa Bader, Deborah Bolnick, Ripan Malhi, Kim TallBear, Nanibaa’ Garrison

Pointing to ethical issues involving genomic analyses of ancient DNA from the Chaco Canyon site, we explore limitations of the Native American Graves Protection and Repatriation Act regarding “culturally unaffiliated” ancestors and suggest future best practices for researchers, museums, federal agencies, journals and granting agencies to ethically engage Native American communities.

Advancing the Ethics of Paleogenomics
Jessi Bardill, Alyssa Bader, Nanibaa’ Garrison, Deborah Bolnick, Jennifer Raff, Alexa Walker, Ripan Malhi

Given recent scientific attention to DNA testing of ancestral remains of Indigenous peoples, we offer much needed Indigenous perspectives on ethical best practices in paleogenomics. In addition, we also highlight examples of community-based practices in which engagement of recent relatives is conducted to minimize cultural and ethical harms, produce stronger scientific interpretations, and improve relationships between scientists and Indigenous peoples.

A Framework for Enhancing Ethical Genomic Research with Indigenous Communities
Katrina Claw, Matt Anderson, Rene Bogay, Krystal Tsosie, Keolu Fox, Nanibaa’ Garrison

Despite advances due to integration of genomics technologies into healthcare, Indigenous peoples remain underrepresented in genetic and clinical health studies. To encourage and foster collaboration with Indigenous communities, we propose six principles for ethical engagement in genomic research.
Indigenization & Inclusion

“Conceptually, indigenization represents a move to expand the academy’s still-narrow conceptions of knowledge, to include Indigenous perspectives in transformative ways.”

Rauna Kuokkanen 2008 in Gaudry & Lorenz 2018: 218

Indigenous Inclusion: “indigenization is conceived of primarily a matter of inclusion and access, and by merely including more Indigenous peoples, it is believed that universities can indigenize without substantial structural change.”

Gaudry and Lorenz 2018, 219
Reconciliation Indigenization

“What sets reconciliation indigenization apart from mere Indigenous inclusion is an attempt to alter the university’s structure, including educating Canadian faculty, staff, and students to change how they think about, and act toward, Indigenous people.”

Gaudry and Lorenz 2018

TRC Calls to Action

What is the Truth and Reconciliation of Canada

The Truth and Reconciliation Commission of Canada (TRC) is a component of the Indian Residential Schools Settlement Agreement. Its mandate is to inform all Canadians about what happened in Indian Residential Schools (IRS). The Commission documented the truth of survivors, families, communities and anyone personally affected by the Indian Residential School experience. This includes First Nations, Inuit and Métis former Indian Residential School students, their families, communities, the Churches, former school employees, Government and other Canadians. View those reports here.
Decolonization brings about the repatriation of Indigenous land and life; it is not a metaphor for other things we want to do to improve our societies and schools. The easy adoption of decolonizing discourse by educational advocacy and scholarship, evidenced by the increasing number of calls to “decolonize our schools,” or use “decolonizing methods,” or, “decolonize student thinking” turns decolonization into a metaphor.”

*Eve Tuck and Wayne Yang 2012*  
“Decolonization is not a metaphor”