



**Native BioData**  
consortium

# Greetings

*Tata jurhiata ka nana echeri tsimarani jarhuuajperani jatiksi, ka ji sesi jáma xaka ini jurhiatekua jimbo. Ji purhépecheeska Ka juchéti taatecha arhíkuarhesinti Maria ka Manueli.*

*Ji aringasinga Ts'ikuapu ts'inapu*

*Tate kici Inajin emaciyapi*

---

***My Name is Joe Yracheta***

# Indigenous Peoples Leading Science and Controlling Repositories:

## Advancing Science and Thwarting AI Dystopia



ANNUAL SYMPOSIUM 2026

**Joseph Yracheta, Executive Director**

Master's of Pharmacogenomics  
DrPh(c) Environmental Health Science



**NativeBio Data**  
consortium

# Joseph M. Yracheta, MS Pharmaceuticals

(Pronounced ear-uh-shə̃tə)

**P'urhépecha (Tarascan),**  
(We Like to Visit)

**Raramurí (Tarahumara)**  
(The Ones that Run)

A MEXICAN LAND OF LAKES AND LACQUERS

63

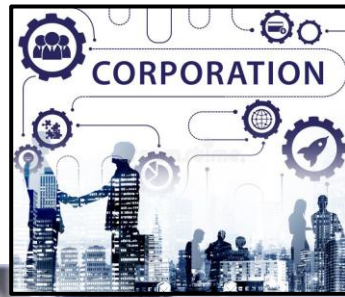


*Emilio Fernandez,  
Oscar Statuette Model*

AN ADONIS OF THE LAKES, PROUD AND VIRILE

Many fishermen of the Pátzcuaro region are magnificent physical specimens. Chroniclers say that the Tarascans, when the early Spaniards arrived, were the finest looking of all Mexican aborigines.



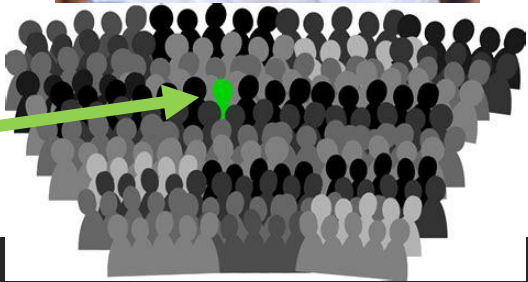


China now the 'good guy' on AI as Trump takes 'wild west' approach, MPs told

Experts say China is backing attempts at global governance, while US has set up race between profit-hungry companies

A photograph of a large, modern exhibition stand for "AI" (Artificial Intelligence). The stand is blue and black with large white letters "AI" in the center. There are also some smaller screens and lights around it.

Explanatory Outlier  
Keystone Species  
Acrobatic Enzymes  
Rare Earth Mineral  
Fresh Water



# Prediction Came True January 2025

**#OpenDataMightBeTheft**





## Comparative Timelines to “Discovery”

### Without Artificial Intelligence

- Botanical Entry as a “trash tree” in 1849
- Described as a medicinal and ceremonial tree of Pacific Northwest Tribes 1890-1920
- Shown to be cytotoxic to cancer cells 1964
- Mechanism of action elucidated 1979
- Phase I and II Clinical trials 1984-85
- FDA approval in 1992
- **TOTAL : 143 years**

### With Artificial Intelligence

- Virtual Screening in millions **Weeks to Months**
- Optimize medicinal molecular structure **18 months**
- Virtual Toxicity and dosing experiments **Year 2**
- Optimizes trial design **Year 3**
- Optimizes patient recruitment and pops **Year 4**
- FDA approval in **Year 5**
- **TOTAL : 5 years**

1525

*Amish – Isolated*



Isolated Human

- 2025 sale equaled \$17 billion world wide
- 2033 sales estimated at \$29 billion
- Lipitor (most popular) made \$2 billion in 2025
- 5<sup>th</sup> most popular made \$1.2 million
- Market life is usually 7-12 years, but 20 years by brand (in the face of generics) is possible
- Conservative calculation of \$100 million x 7 years = \$700 million
- Or Liberal...\$500 million x 15 = \$7.5 billion

cient  
thern  
itatio

b Pek



000 years

seen in Other



# RECOGNITION (& TARGETED) AS RESOURCE

Opinion | [Published: 26 August 2008](#)

## Isolated populations and complex disease gene identification

[Kati Kristiansson](#), [Jussi Naukkarinen](#) & [Leena Peltonen](#) 

*Genome Biology* **9**, Article number: 109 (2008) | [Cite this article](#)

**12k** Accesses | **101** Citations | **4** Altmetric | [Metrics](#)

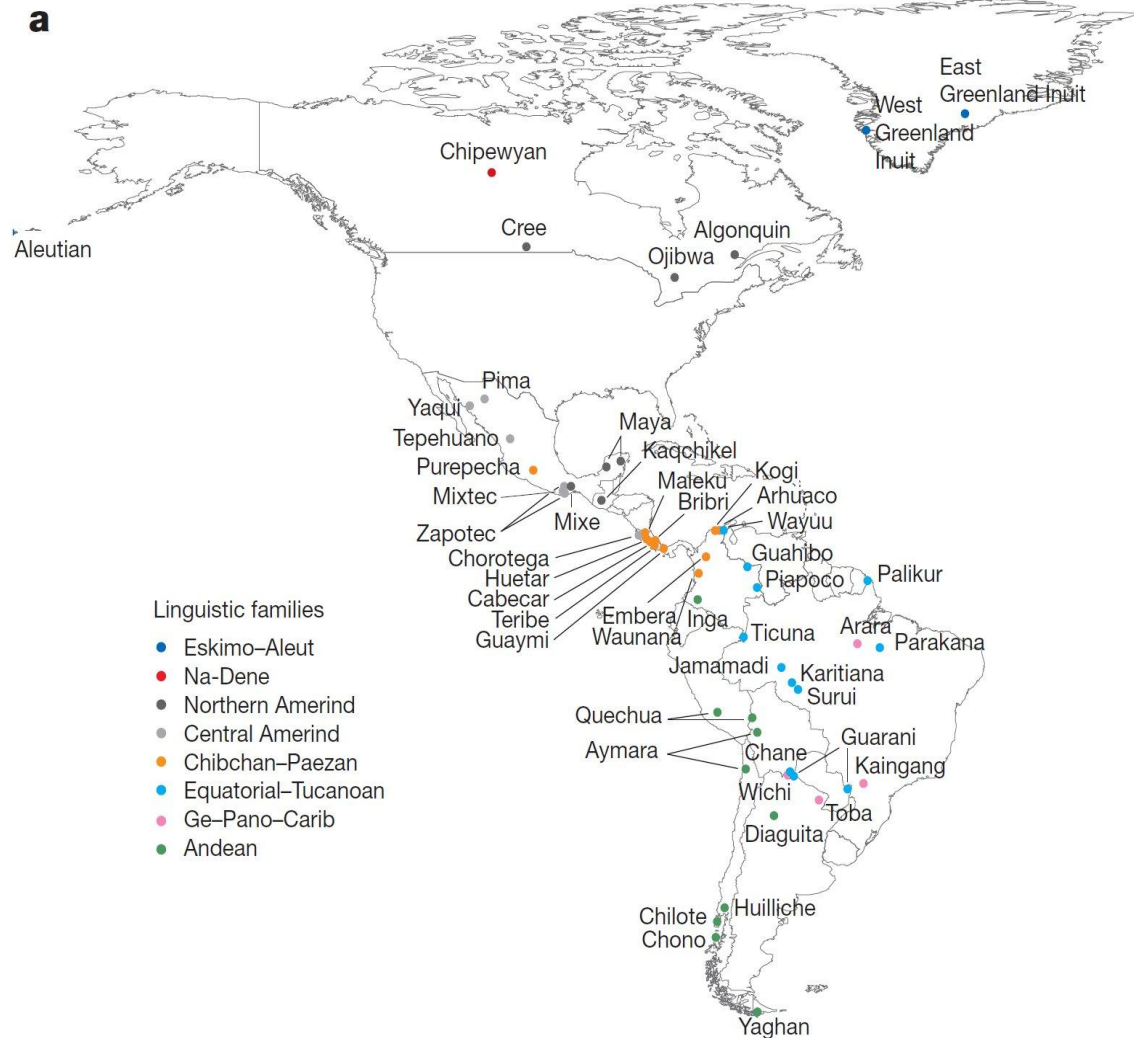
### Abstract

---

The utility of genetically isolated populations (population isolates) in the mapping and identification of genes is not only limited to the study of rare diseases; isolated populations also provide a useful resource for studies aimed at improved understanding of the biology underlying common diseases and their component traits. Well characterized human populations provide excellent study samples for many different genetic investigations, ranging from genome-wide association studies to the characterization of interactions between genes and the environment.

● On Y  
10,30  
Rebu


**a**



Genome sequ

# SEQUENCING AMERICAN S

Genome sequenc  
used to support t  
human remains t

► Mol Biol Evol. 2019 Dec 17;37(4):994–1006. doi: [10.1093/molbev/msz282](https://doi.org/10.1093/molbev/msz282) 

## Population History and Gene Divergence in Native Mexicans Inferred from 76 Human Exomes

[María C Ávila-Arcos](#)<sup>1,2,✉</sup>, [Kimberly F McManus](#)<sup>3,4</sup>, [Karla Sandoval](#)<sup>5</sup>, [Juan Esteban Rodríguez-Rodríguez](#)<sup>5</sup>, [Viridiana Villa-Islas](#)<sup>1</sup>, [Alicia R Martin](#)<sup>2</sup>, [Pierre Luisi](#)<sup>6,7</sup>, [Rosenda I Peñalozza-Espinosa](#)<sup>8</sup>, [Celeste Eng](#)<sup>9</sup>, [Scott Huntsman](#)<sup>9</sup>, [Esteban G Burchard](#)<sup>9</sup>, [Christopher R Gignoux](#)<sup>10</sup>, [Carlos D Bustamante](#)<sup>2</sup>, [Andrés Moreno-Estrada](#)<sup>5,✉</sup>

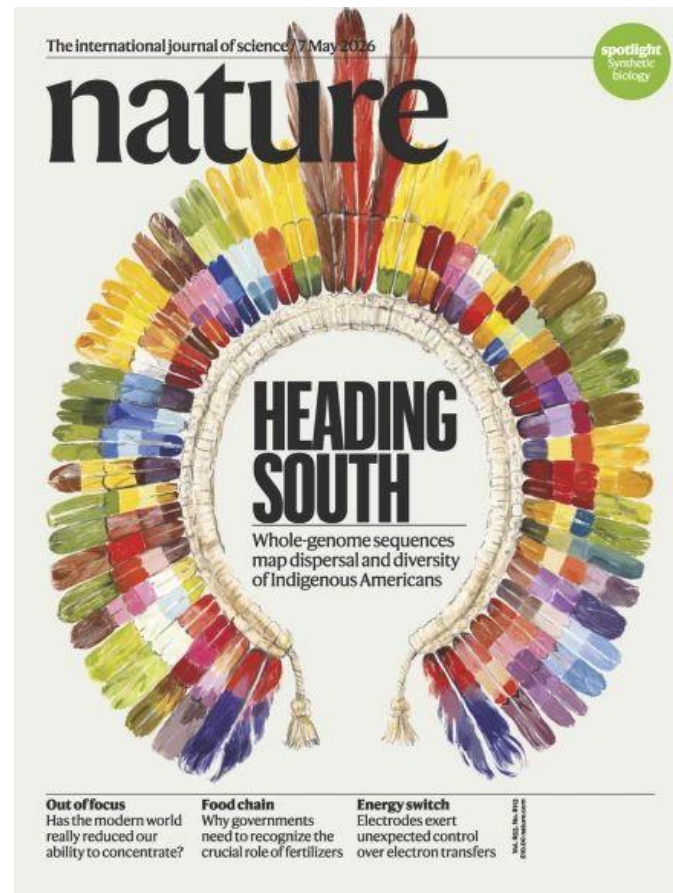
Editor: Daniel Falush

► [Author information](#) ► [Article notes](#) ► [Copyright and License information](#)

PMCID: PMC7086176 PMID: [31848607](https://pubmed.ncbi.nlm.nih.gov/31848607/)

### Abstract

Native American genetic variation remains underrepresented in most catalogs of human genome sequencing data. Previous genotyping efforts have revealed that Mexico's Indigenous population is highly differentiated and substructured, thus potentially harboring higher proportions of private genetic variants of functional and biomedical relevance. Here we have targeted the coding fraction of the genome and characterized its full site frequency spectrum by sequencing 76 exomes from five Indigenous populations across Mexico. Using diffusion approximations, we modeled the demographic history of Indigenous populations



# Proof that we are unique

- **2020 Paper**

- 76 people, 5 groups
- 58,918 biallelic SNVs
- 4,181 SNVs absent from public
- 117,644 were ancestral to Americas
- Novel 29 and 118 SNV per exome

- **2026 Paper**

- 128 people, 8 countries, 45 groups
- 28 language families
- 12.5 million SNVs
- 1,426,511 SNVs absent from public
- 270,000 new
- 11,000 per individual (avg)

[Datasets](#) →  EGAD50000002396

# Indigenous American Genomic Diversity Project (IAGDP).

Here we present the Indigenous American Genomic Diversity Project (IAGDP), comprising 128 newly generated high-coverage (NGS; ~44X) whole genomes from Indigenous individuals across eight Latin American countries, representing 45 populations and 28 language families. This dataset expands Indigenous representation in genomics, with emphasis on geographically and linguistically diverse populations, particularly from the South American lowlands.

 09/03/2026  128 samples  DAC: **EGAC50000000368**  Technology: BGISEQ-500

Access Policy

1 Study

24 Files (14.1 GB)

 Metadata Request Access RS NPUNCU MOR

## DATA ACCESS AGREEMENT

**Authorised Personnel:** The individuals at the User Institution to whom Associação Genomas Brasil (represented herein by Prof Tábita Hünemeier) grants access to the Data. This includes the User, the individuals listed in Appendix II and any other individuals for whom the User Institution subsequently requests access to the Data. Details of the initial Authorised Personnel are set out in Appendix II.

**Data:** The managed access datasets to which the User Institution has requested access.

**Data Producers:** Associação Genomas Brasil (represented herein by Prof Tábita Hünemeier) and the collaborators listed in Appendix I r

## Analysis of Common SNPs across Continents Reveals Major Genomic Differences between Human Populations

[Larisa Fedorova](#)<sup>1</sup>, [Andrey Khrunin](#)<sup>2</sup>, [Gennady Khvorykh](#)<sup>2</sup>, [Jan Lim](#)<sup>1</sup>, [Nicholas Thornton](#)<sup>1</sup>, [Oleh A Mulyar](#)<sup>1</sup>, [Svetlana Limborska](#)<sup>2</sup>, [Alexei Fedorov](#)<sup>1,3,\*</sup>

| Region    | Step-1.<br>Number of ARSA<br>SNPs in the<br>Simons<br>Database | Step-2.<br>Number of ARSA<br>SNPs Filtered by<br>1000 Genomes | Step-3.<br>Number of ARSA<br>SNPs Filtered by<br>EGDP Database | Step-4.<br>Number of<br>ARSA SNP<br>Clusters | ARSA SNP Allele<br>Status (Ancestral<br>vs. Derived) |
|-----------|--|---|--|--|--|
| Africa    | 204,983  | 112,658   | 77,820   | 28,774                                       | 22% vs. 78%  |
| Americas  | 46,994   | 4133  | 3348   | 3222   | 1% vs. 99%   |
| East Asia | 7789   | 441   | 362  | 272  | 7% vs. 93%   |
| Europe    | 6585   | 2484  | 1911   | 1394   | 3% vs. 97%   |
| Oceania   | 77,437   | 71,848 *  | 1358   | 453  | 4% vs. 96%   |

### Abundant Region-Specific Allele (ARSA) SNPs [Open in a new tab](#)

\* Oceania populations are absent in 1000 Genomes; thus, the requirement for MAF > 18% is omitted for OCE at Step-2.

The highest number of ARSAs was detected in Africa, while the lowest number was observed in East Asia ([Table 1](#)). The second highest was in Native Americans, whose total number of ARSAs was nine times greater than the number of ARSAs from East Asia.

- 2/3 False
- SNP varian
- Out of 900 Indians
- Likely a mix of different m
- Brazil sent developed company

stics

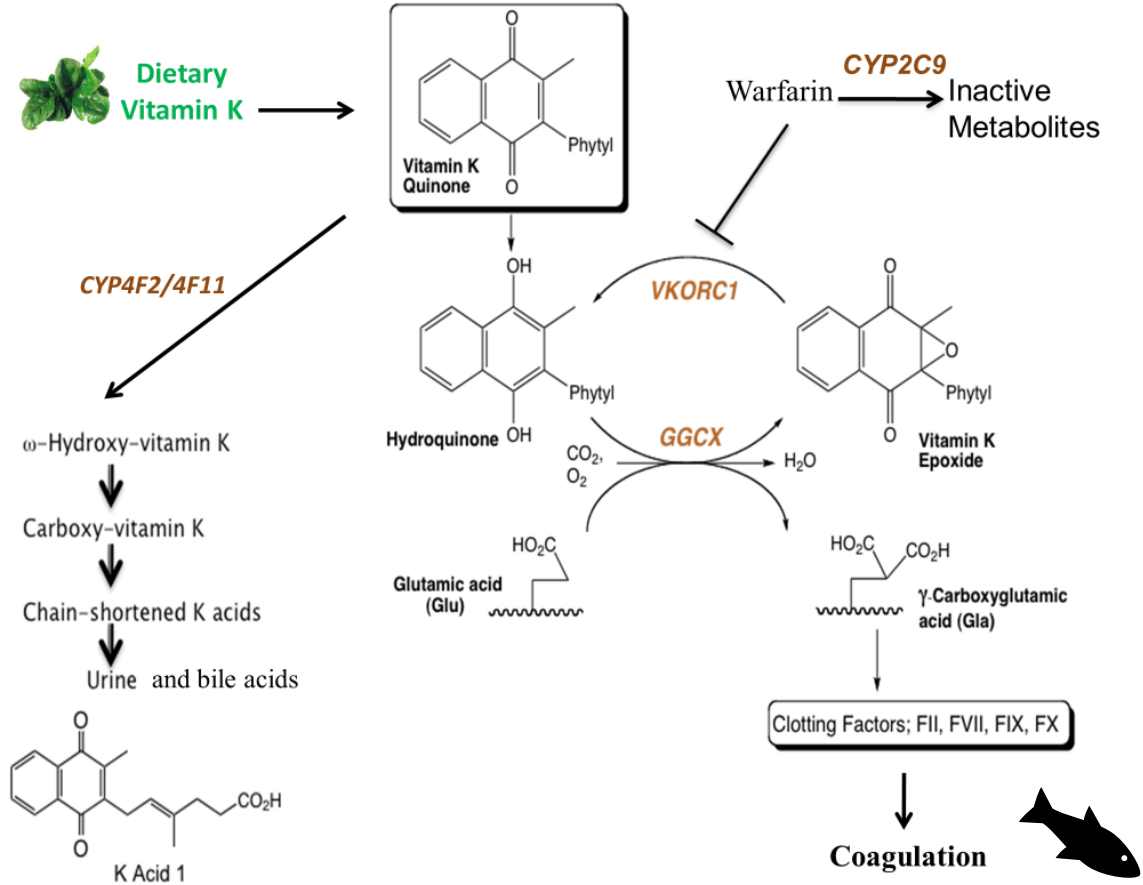
5

American

se and

dly  
rma

# Vitamin K Cycle and Warfarin Pharmacology



## **BAYH-DOLE ACT 1980: BEGINS CLAIMING DATA**



**Birch Bayh**



**Bob Dole**

- An attempt to privatize and motivate development from Publicly Funded Research
- Contested Stakeholders were Scientists/Academics, Universities and the Federal Govt.
- Created uniform federal intellectual property policy
- Nonprofits and small business could elect title to inventions that were created in whole or in part with federal funding
- However, universities would have to agree to a set of due-diligence requirements

# FEDERAL LAW HR 2272: TAX FUNDED DATA BELONGS TO USA

- 2007, President Bush signed the America COMPETES Act or the "America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act" shifted public funding toward commercially applicable research



# NIH Policy on Enhancing Security Measures for Human Biospecimens (NOT-OD-25-160)

## Overview

NIH has issued a new policy ([NOT-OD-25-160](#) ) establishing expectations to secure human biospecimens of U.S. persons (regardless of identifiability) that are collected, obtained, stored, used, or distributed with NIH support. The policy aligns with [Executive Order 14117 and the U.S. Department of Justice's \(DOJ's\) Bulk Data Rule](#) (under [28 C.F.R. Part 202](#) ) designed to prevent access to Americans' bulk sensitive data by countries of concern and covered persons.



# National Human Genome Research Institute

NHGRI CONCEPT

**ancient DNA for Modern Genomics (aDMG)**

## **Purpose**

### **Funds Anticipated**

NHGRI intends to commit approximately \$25M total costs across fiscal years 2027-31. The Community Engagement and Coordination Center and Data Generation and Resource Center would begin in FY27. The Question-Driven Research Projects are tentatively slated for FY28 pending future council approval.

research projects using aDNA data to study the biology, epidemiology, and/or evolution of disease and health-related traits.

# THE NAÏVETÉ OF TAX FUNDED RESEARCH

Profit-based Development

Altruistic Research

THIS RARELY/NEVER  
HAPPENS

Develop based on Central Tendency (mean, median, mode of payment)

**Collect Data**  
w/Aspirational  
Equality and Altruism  
under few to no  
rules

**MAGIC  
HAPPENS!!!!**

Where are the rules,  
laws, ameliorations,  
mitigations,  
negotiations?

No Benefits or  
Economic  
Restoration for  
Victims of  
Colonization

Benefits from  
Science

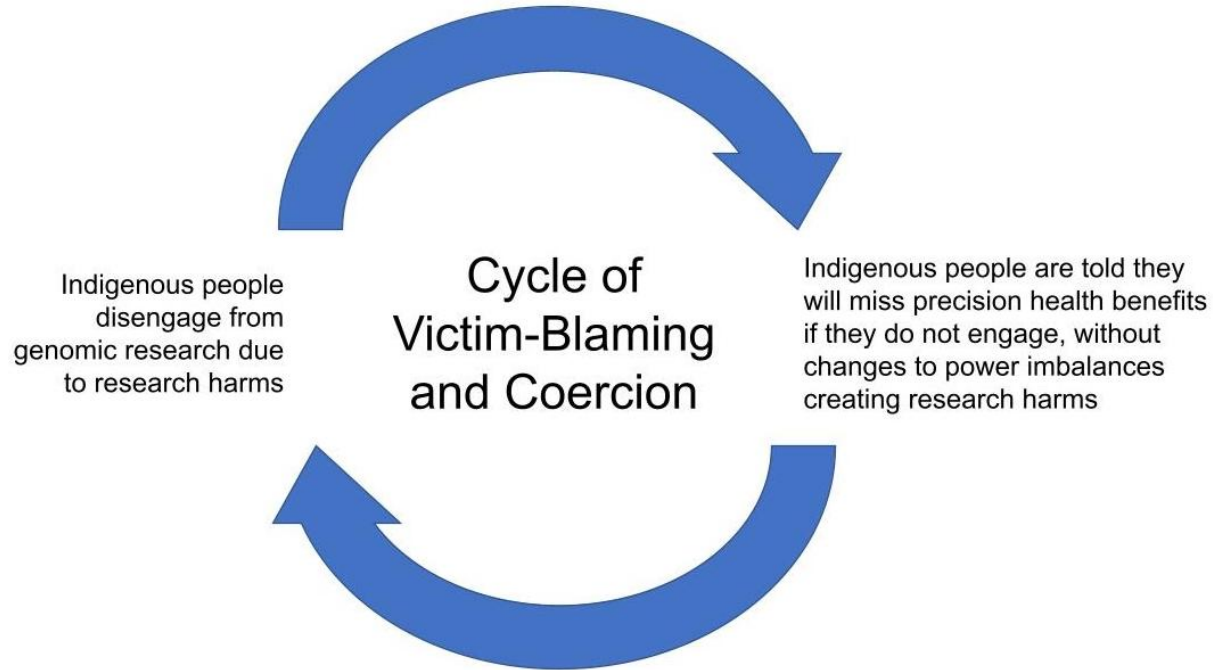
PRO

semipermeable membrane

# BEYOND GENETICS

"In 2018, Indian Health Services spent an average of \$3,779 per patient.  
The national spending per capita that same year was \$9,409"

National Indian Health Board



The Cycle of victim-blaming and coercion that Indigenous Peoples experience in research

## IRBS ARE NOT TREATIES

- Reserved Rights Doctrine
- Consultation Mandated since Clinton, Obama, then Biden
- Handshake and a Smile of the Common Rule is a manipulation
- Wild West and Lack of Congressional Action toward Technological Regulation
- Most International Laws are not recognized here in the Tech Monopoly of the World
- IRBs don't cover circumventions of IDSov (NAGPRA, synthetic biology, corps, PH, Forensics, non-human)
- Laws have historically been based on precedent, not ETHICS

# Federal Policies

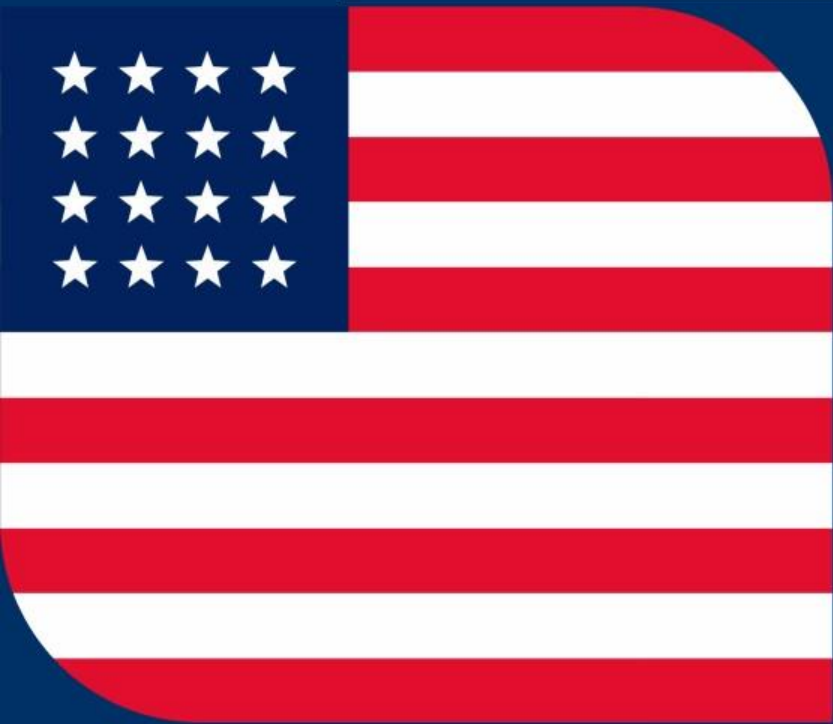
- Tribal Consultation Policy
- All of Us Research Policy
- Data Sharing policy of Jan. 25<sup>th</sup> 2023
  - Tribal addendum
- Indigenous Knowledge Policy 2023
- National Academy of Science, Engineering and Math
  - Reducing or recategorization of Race/Ethnicity Labels

## Dept of Defense Officer:

**“We don’t have privacy in the USA.  
We have cypher game of chess.  
You have the right to try and hide  
your data. I have a right to build an  
algorithm to find it by any means  
necessary**

**YOU and YOUR STUFF ARE**

**BIO-PROPERTY**



**USA**

**OWNED &  
OPERATED**

Uncertainty, Dangerous Optimism, and

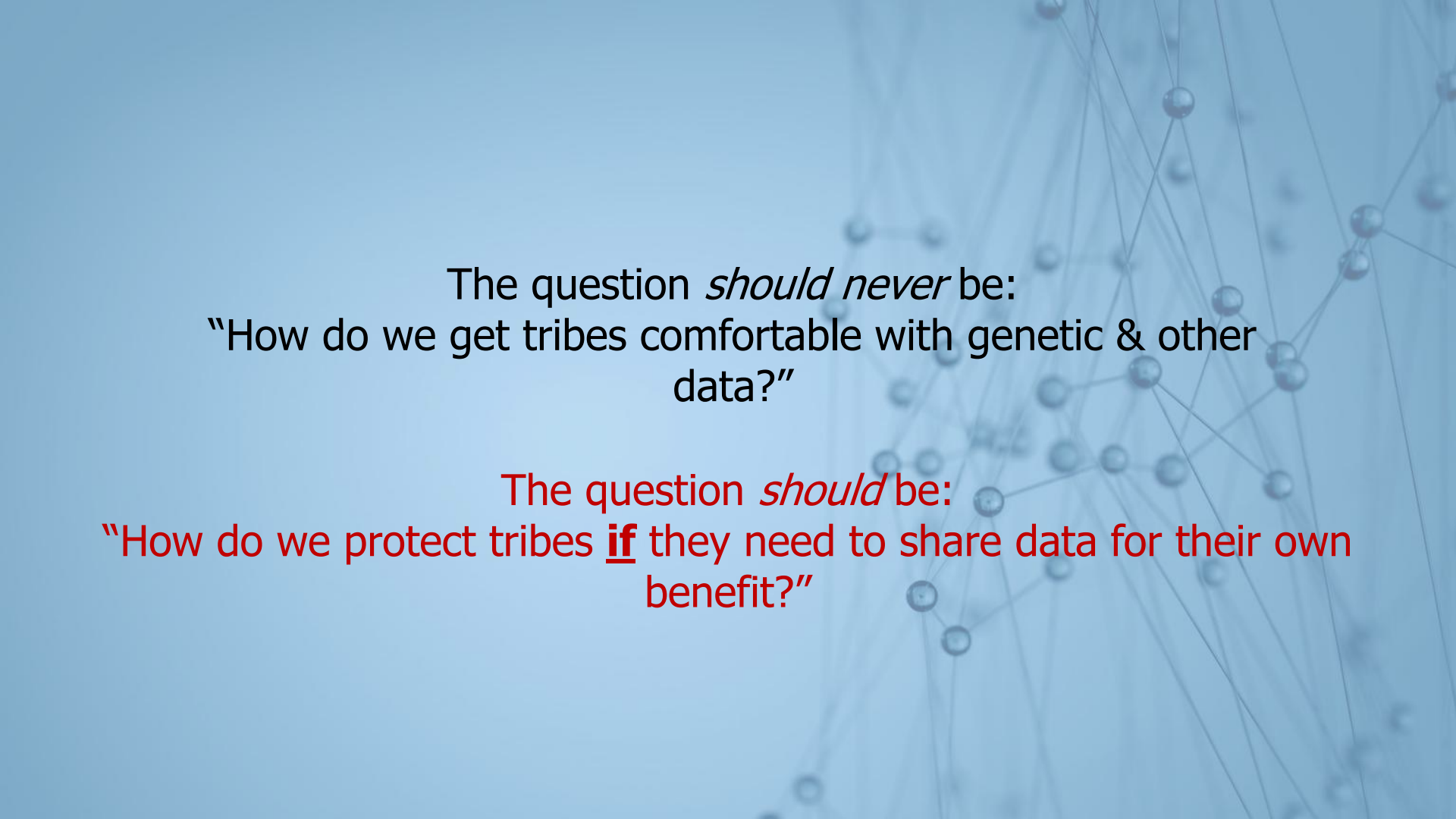
Part I shows how optimism-driven speculative trading can be a kind of market failure that predictably generates economic losses to society. It begins by defining the difference between risk and uncertainty, and demonstrating how uncertainty (unlike risk) permits subjective disagreement over future values.

**Abstract**

People are often optimistic. Nearly fifty percent of marriages end in divorce, but one survey found that 100 percent of individuals planning to get married believed they would never get divorced. Most people think they drive better than the average driver, and at one university, ninety-four percent of professors placed themselves in the top fifty percent in terms of teaching skills. We often seem to think we are like the youth of Garrison Keillor's fictional hometown Lake Wobegon, where "all the children are above average."

These Big Data Projects clearly demonstrate  
that

**Inclusion  $\neq$  Equity**

A background network diagram consisting of numerous light blue nodes connected by thin, light blue lines, creating a complex web-like structure. The nodes are semi-transparent spheres, and the lines are thin and light blue. The overall background is a light blue gradient.

The question *should never* be:  
“How do we get tribes comfortable with genetic & other  
data?”

The question *should* be:  
“How do we protect tribes **if** they need to share data for their own  
benefit?”

# Federal Data Silos? Collapsing?

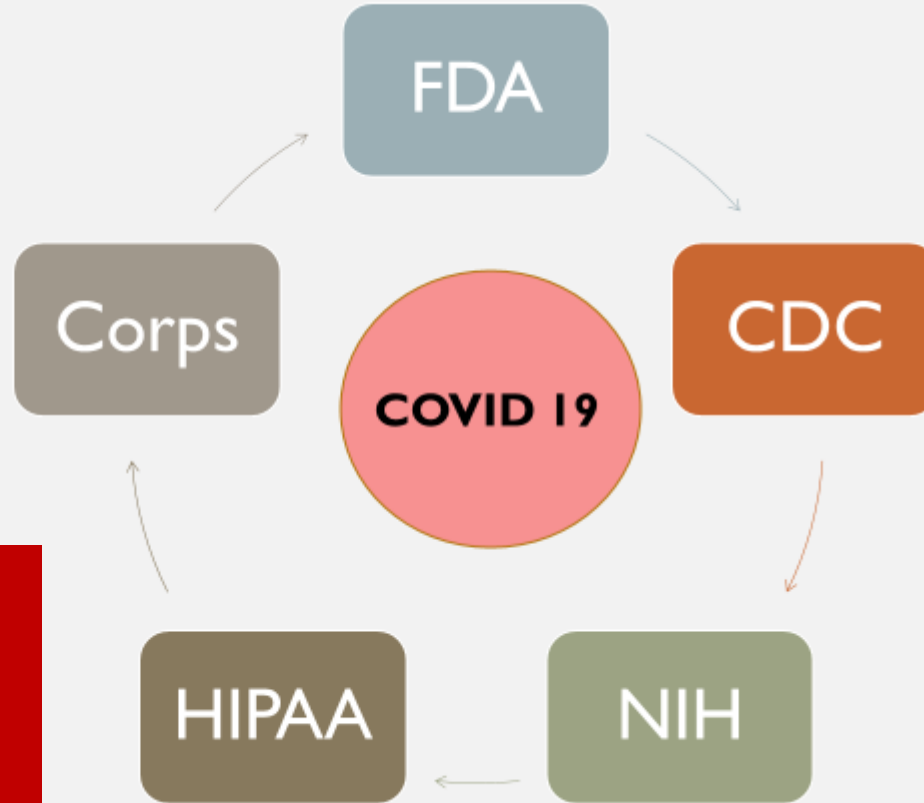
WHY NOW?

TRIBAL GOVTs  
Do Not Have to  
Follow!

**They can and should  
lead!**

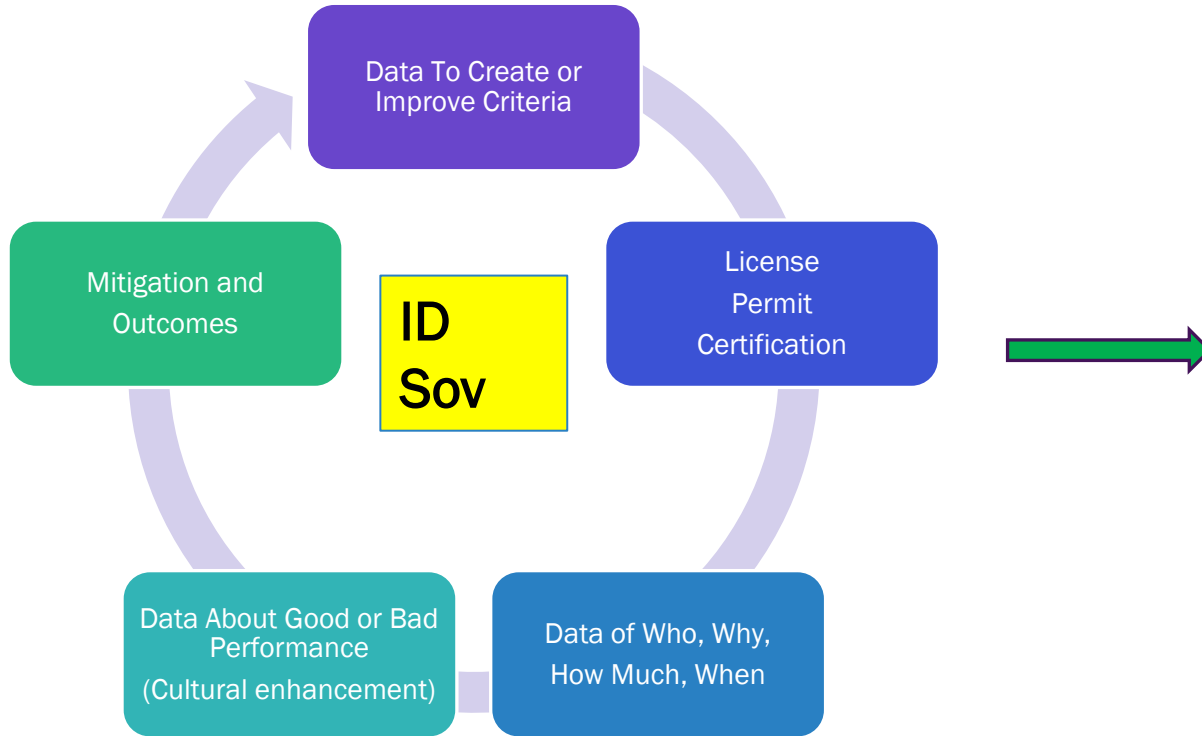
**They can make their  
own silos**

(or not)



EPA  
DNR  
USDA  
USGS  
DOE  
NAGPRA  
Demographic  
S  
Education  
Voting  
Business

# IDSov of licensing



## Economic Benefits

- Income Generating
- Efficiency
- Planning and Reorganizing
- Cultural Inspection
- Data Protections
- Lawsuits
- Treaty Obligations
- Replicability, Consistency and Rigor (Banking, Loans, Investment)

# C3LSI INFRASTRUCTURE NEEDED

**C3LSI** is the consideration of how new technologies will impact a people group, society or government

- **Culture** – often left out of funding and research considerations
- **3 Es**
  - **Economy** (IP & Implementation)
  - **Ethics** (western)
    - Ecology (indigenous & sustainable)
  - **Equity** (indigenous control)
- **Law** – Unique and separate Tribal law & policy
- **Social Impact** – Very different from majority culture

## Tribal Government

1. **Data Management** (Futures)
2. **IRB** (floor not ceiling)
3. **RRB** (Community, Design, Culture, Privacy, Economy)
  1. Tribal Health
  2. Tribal AG Office
  3. Tribal Preservation
  4. Other Depts

Yale SCHOOL OF MEDICINE

---

# Introduction to AI in Medicine



**TL** IITB TRUST LAB  
DIGITAL : SECURE : RESPONSIBLE



Co-hosted by  
**Infosys Science Foundation**



## Privacy as Contextual Integrity : Definition and (a few) Applications

**HELEN NISSENBAUM**  
Professor, Cornell Tech Information  
Science Director, Digital Life Initiative

 Distinguished  
Speaker Series



# Wet vs Dry? Is there a difference anymore?

Settler Colonial Individual Consent vs Indigenous Group Consent



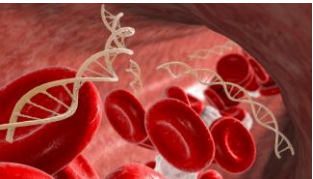
## Public Data Collection



### A History of Plant Medicine

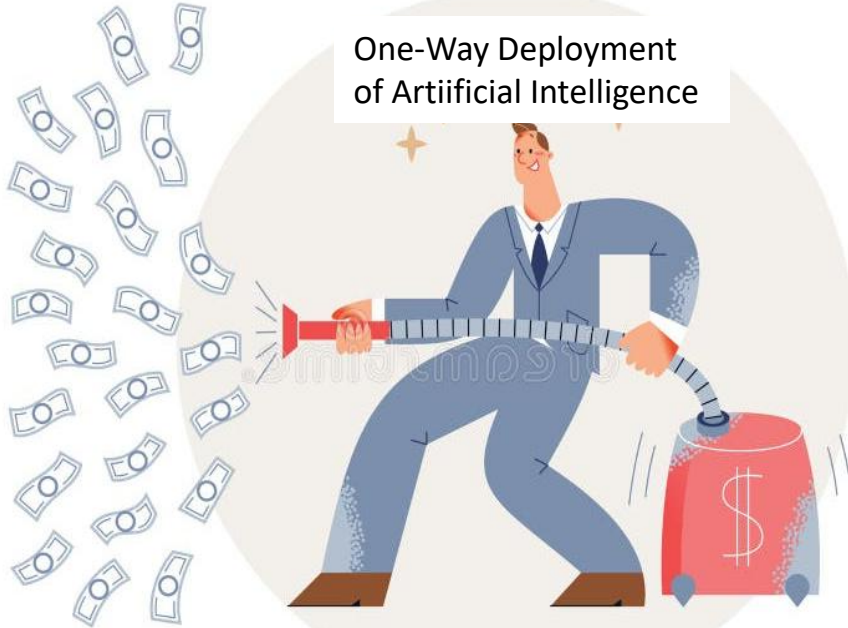


Western Herbal Medicine from the Ancient Greeks to Modern Day  
Christina Stapley



# Digitization is Sexy, Irresistible & Overall cheaper

One-Way Deployment of Artificial Intelligence



## Private Data Use

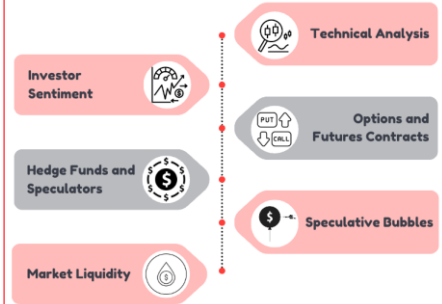
# PRIVATE PROFITS, PUBLIC RISKS

How Wall Street Buyout Firms are Funding Oil and Gas Drilling on Public Lands and Threatening to Leave Taxpayers With a \$380 Million Cleanup Bill

PRIVATE EQUITY  
STAKEHOLDER  
PROJECT

PUBLICCITIZEN

### SPECULATIVE FACTORS AFFECTING COMMODITIES MARKET RATES

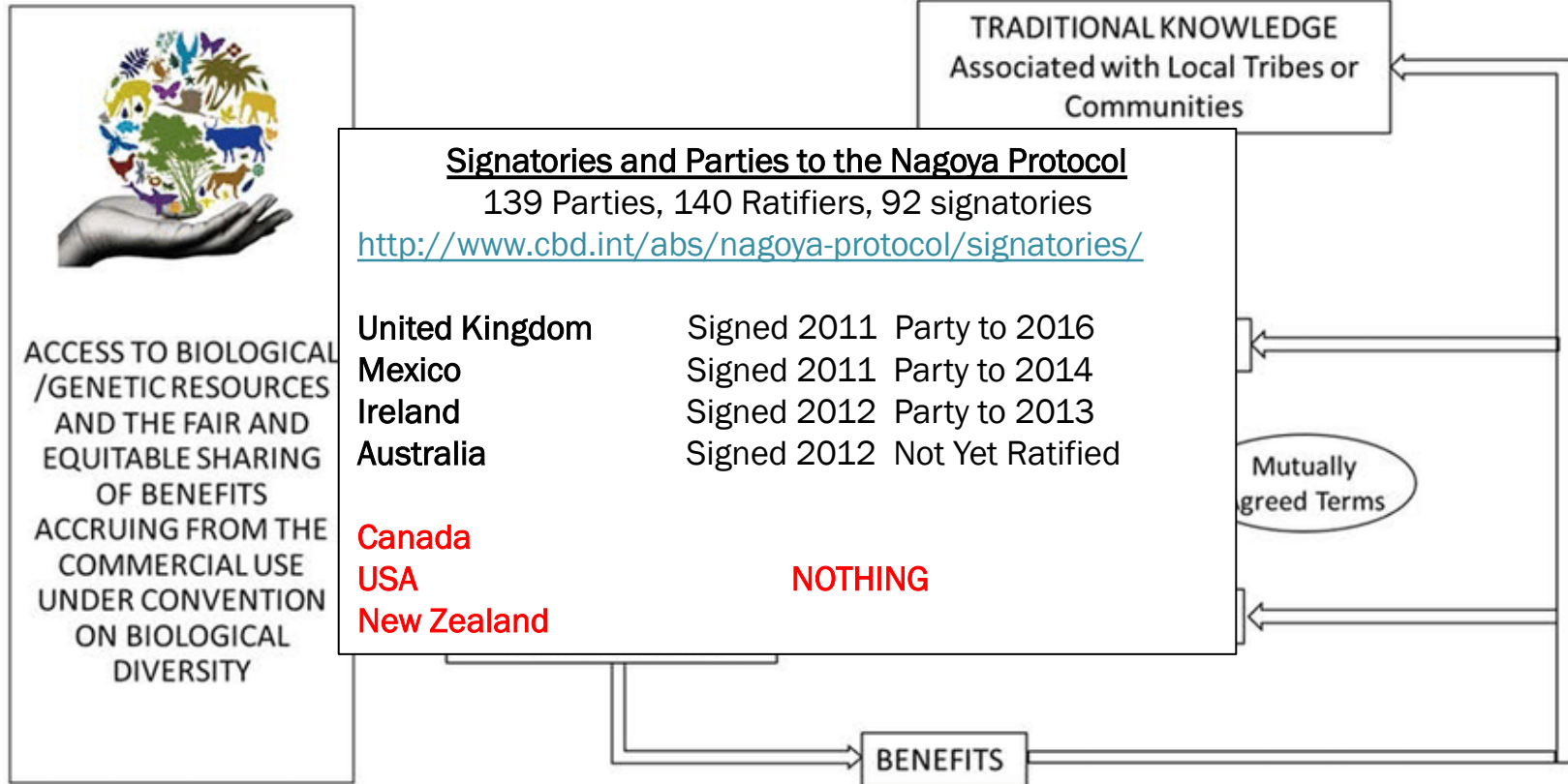


Undemocratic, Unequal and Dangerously Powerful

DATA AND \$\$\$\$ Flow Unidirectionally ----->

# Nagoya Protocol on Access and Benefit Sharing

Non-Human



**Invalidating “Presumed Incompetence”  
and  
Dismantling the  
“Just Sit Tight. We’ll Get to You”  
relationship with the  
Federal and State governments**



Support the Indigenous and independent source for data  
sovereignty, research, and biodata storage.

[Donate](#)

**NativeBio** is a 501(c)(3) nonprofit data repository and research center dedicated to advancing Indigenous health and tribal self-governance. Your donations help sustain this vital work.

# NativeBio as a Safe Harbor





# How is NativeBio implementing Indigenous Data Sovereignty principles?

# Now



# Our Future



## One-time Transaction

Low \$\$  
Or Benefits



# Indigenous Data

## Retain ownership



Continuous \$\$  
Or Benefits



# Types of Consent used in Biobanking

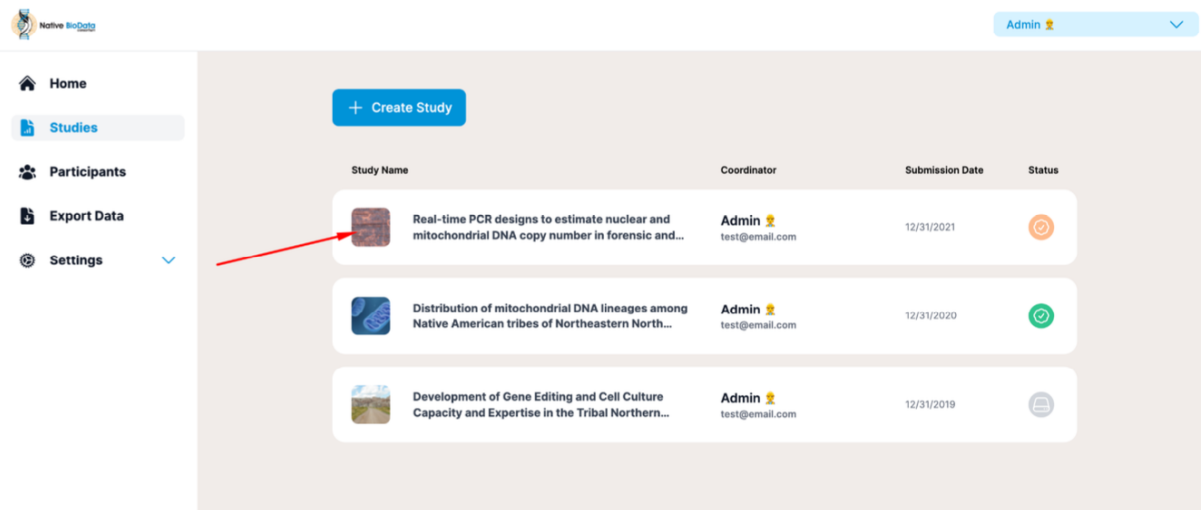
|                  |  |
|------------------|--|
| Blanket consent  | One-time consent in which participants agree to all subsequent research uses of their specimens and data   |
| Broad consent    | One-time consent by participants, but each research use of their specimens and data must receive prior approval from an IRB or comparable body   |
| Dynamic consent  | Initial consent by participants is followed up by electronic notification of each proposed use of their specimens and data, and participants can opt out of any specific research use                            |
| Open consent     | Data, whether anonymized or not, are posted on the internet and available to anyone in the world   |
| Specific consent | Separate consent is required for each new research use of the participant's specimen and data  |
| Tiered consent   | During the consent process participants are given a menu of different types of research (e.g., cancer, heart disease) and they can elect for which research they consent to having their specimens and data used |







**Consent is NOT A CONTRACT**

**Hyper Individualization of Consent**

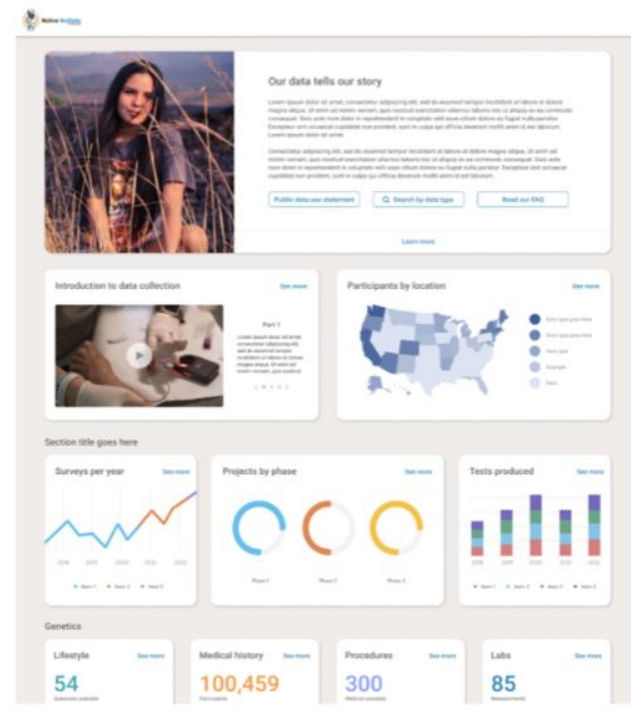
---

# Dynamic Consent Portal for NativeBio's Biobank



| Study Name   | Coordinator   | Submission Date | Status  |
|--|---|-----------------|---|
| Real-time PCR designs to estimate nuclear and mitochondrial DNA copy number in forensic and...   | Admin <br>test@email.com   | 12/31/2021      |    |
| Distribution of mitochondrial DNA lineages among Native American tribes of Northeastern North... | Admin <br>test@email.com | 12/31/2020      |  |
| Development of Gene Editing and Cell Culture Capacity and Expertise in the Tribal Northern...    | Admin <br>test@email.com | 12/31/2019      |  |

A place for researchers to manage their study and participants to know what is produced with oversight from Tribal authorities



Our data tells our story

Learn more

Introduction to data collection [See more](#)

Participants by location [See more](#)

Section title goes here

Surveys per year [See more](#)

Projects by phase [See more](#)

Tests produced [See more](#)

Genetics

Lifestyle [See more](#)  
54

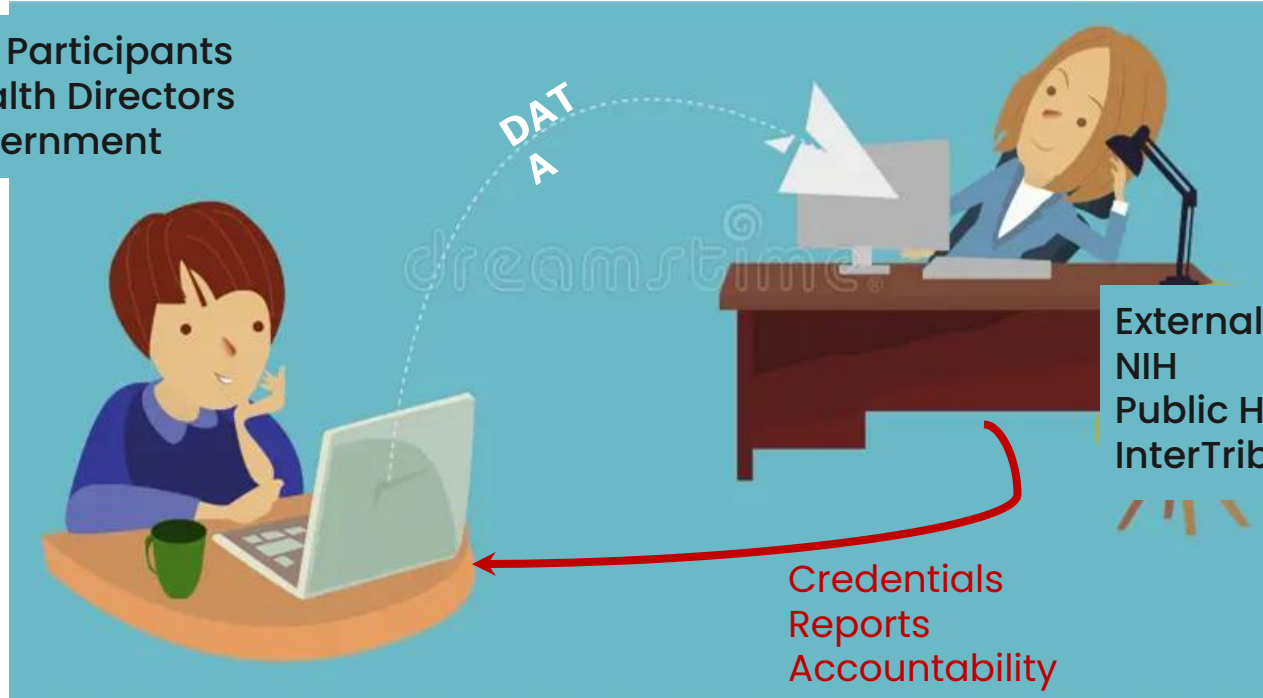
Medical history [See more](#)  
100,459

Procedures [See more](#)  
300

Genetics [See more](#)  
85

# Scenario: Using a Dynamic Consent Portal

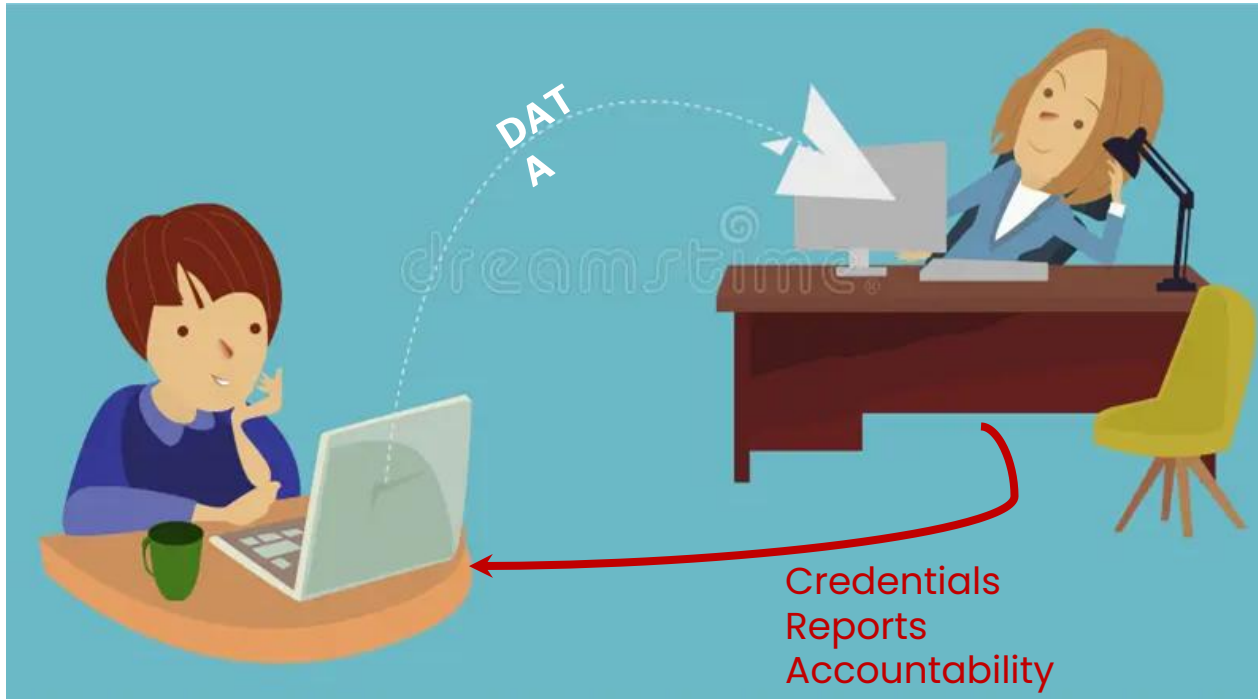
Individual Participants  
Public Health Directors  
Tribal Government



External Researcher  
NIH  
Public Health Workers  
InterTribal Partners

# A Dynamic Consent Portal Satisfies

- Institutional Memory
- Regulatory Authority
- Individual Awareness
- Centralized IT Monitoring and Administration



## **Research Transparency:**

- Researchers
- Institutions
- Approvals
  - Tribal
  - D4I-TDR
- Funding info
- Data collected
- Original Project
- New project requests
- Expiry dates
- Consent Forms
- Summary Data inventories
- Research Integrity reports
- Conflicts of Interest
- Draft & Published Manuscripts
- IRB and RRB Reviews



# DATA FOR US BY US

"As a collective we are moving Indigenous Data Sovereignty to the forefront of US Federal Data Sharing Policies"

WHAT'S NEW?

Curriculum Written by D4I TDR Members to be Shared at IndigiData Workshop

[Read](#)

# Our Team

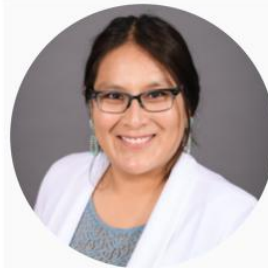


## Collaboration across Turtle Island

- NativeBio Data Consortium
- Arizona State University
- University of Wisconsin - Madison
- Ohio State University
- University of California - Santa Cruz
- University of Washington - Seattle



Joseph Yracheta



Krystal Tsosie



Matt Anderson



Soledad Fernandez



Ann Mc Cartney



Sue Trinidad

# TDR Current Mission Statement



**“The mission of the Data for Indigenous Implementations, Interventions, and Innovations (D4I) Tribal Data Repository (TDR) is to develop Indigenous-led solutions for responsible data sharing and management practices for Tribally derived COVID-19 Common Data Elements (CDEs) from RADx and RADx-UP and build a TDR that implements IDsov principles through Tribal engagement and consultation to advance ethical research.”**

**- Manual of Operations**



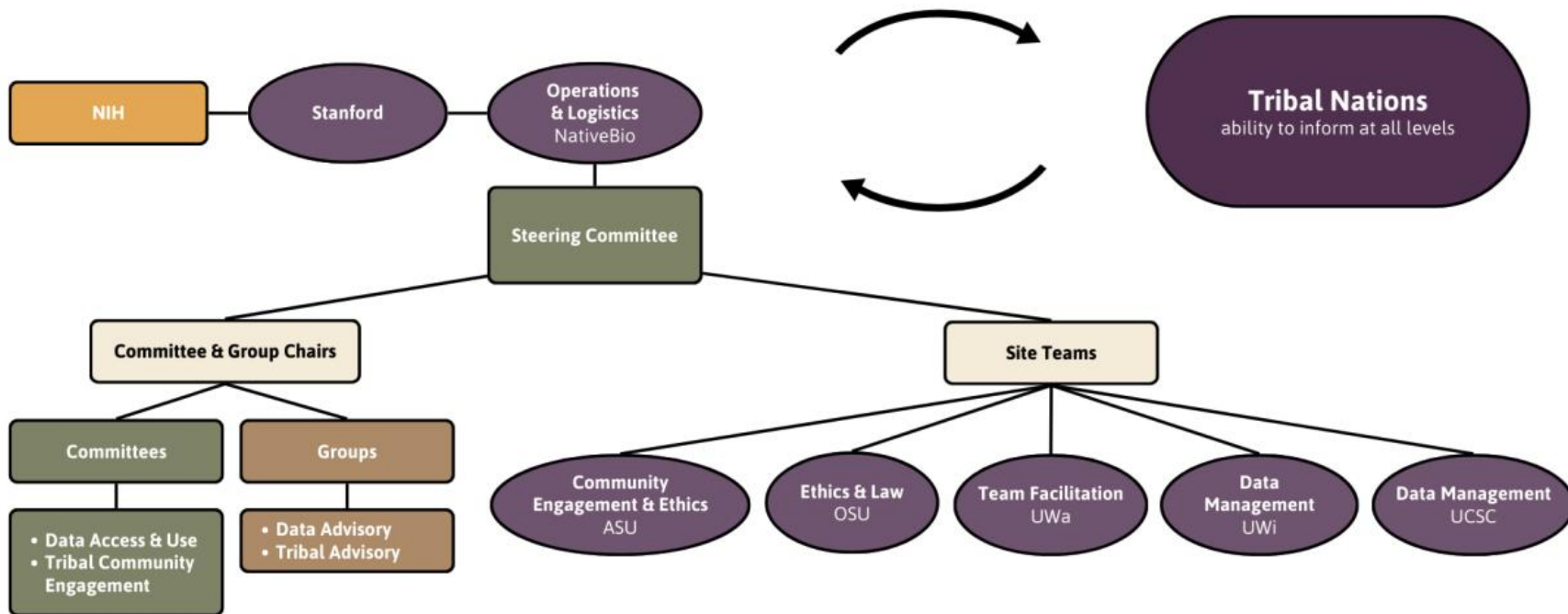
# Focal Data Governance Topics



## Infrastructure

- Policy
- Data Quality
- Security
- Data Warehousing (Hardware)
- Data Warehousing (software)
- Architecture & Integration
- Management Support

# Ultimate Authority by Tribal Nations



# Types of Data Governance Models

## Centralized

Decisions are made/enacted by a central entity.



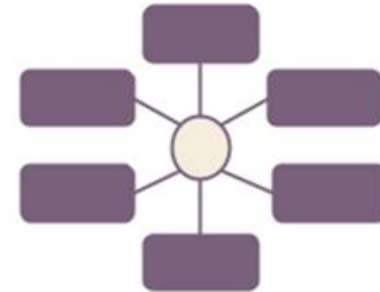
## Federated

Decisions are shared between a central and all data source entities.



## Decentralized

Decisions are made by the data source entities.



### Symbols Key



Main decision entity



Not a decision entity



Entity that shares in decisions

# Spectrum of Federated Models Allows for Unique Needs

More centralized  
regulations/guidance



More local regulations



Outside of the spectrum,  
each local entity chooses  
how much central input  
they receive, while meeting  
minimum standards.

# DIGITAL TOOLS TO PROTECT INDIGENOUS GENOMIC DATA SOVEREIGNTY

- ✓ **Traditional Knowledge (TK) Labels.** Digital markers to define Indigenous attribution, access, and use rights
- ✓ **Biocultural (BC) Labels.** Digital markers for provenance, transparency and integrity in research engagements related to community expectations and consent for data use
- ✓ **Watermarking Data.** Track data through time and space.
- ✓ **Dynamic Consent Portal.** In Indigenous-led data repository, to house Tribally-consented genomic sequence data and manage access and attribution.
- ✓ **Blockchain.** A distributed ledger system that tracks sharing via transactions, can fine-tune user access, attribute provenance, and facilitate data governance.
- ✓ **Federated Decentralized learning.** To facilitate secure and community-consented data sharing.
- ✓ **Dockerizing, Containerizing.** Virtual sharing and analysis environments to prevent misuse and, if necessary, immediately revoke access.



Native **BioData**  
consortium

# Artificial Intelligence Ready and Equitable Atlas for Diabetes Insights

Generating a flagship AI-ready and ethically-sourced dataset to support future AI-driven discoveries in diabetes

[Access our data](#)

[See our documentation](#)





[ABOUT EBP](#) [REPORTS](#) [COMMITTEES](#) [MEDIA](#) [OUTREACH](#) [CONTACT](#)

CREATING A NEW FOUNDATION FOR BIOLOGY

# Sequencing Life for the Future of Life

[VIEW EBP SEQUENCING PROGRESS](#)

[HOW TO JOIN THE EBP](#)

## Subscribe to EBPLife

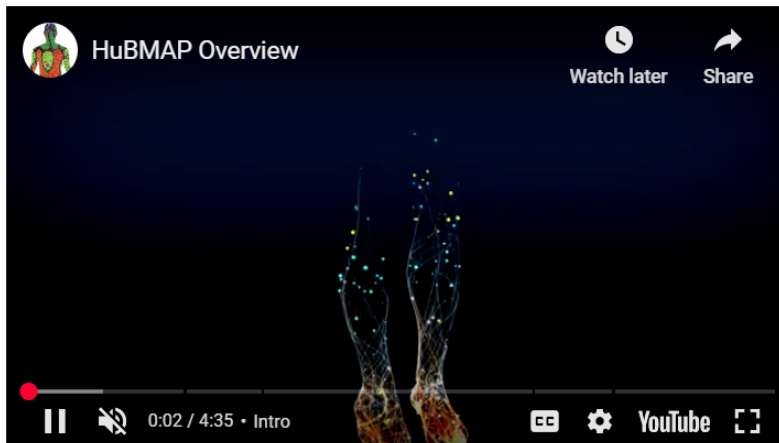
Sign up for our seasonal NEWSLETTER here:

**SUBSCRIBE**

# What is HuBMAP?

The Human BioMolecular Atlas Program is working to catalyze the development of a framework for mapping the human body at single cell resolution.

[Learn More](#)





# Human Virome Program

[Home » Human Virome Program](#)

## Human Virome Program

### For The Public

[Health Relevance](#)
[News & Announcements](#)

### For Researchers

## Program Snapshot

The overall goal of the NIH Human Virome Program (HVP) is to describe the “healthy” virome – the collection of viruses that normally reside inside the human body without evidence of disease – and to improve our understanding of the role it plays in shaping human health.

Viruses are the most abundant and diverse biological entities on earth, and while much of the existing research on viruses has focused on a small number that cause illness, far less attention has been given to the many other viruses that coexist with us and that are not associated with a known or sudden disease. Despite recent technological advances, it has been challenging to explore these largely

## ANNOUNCEMENTS

[Notice of Correction to Budget Instructions for RFA-RM-23-019 "Human Virome Characterization Centers \(U54 Clinical Trial Not Allowed\)"](#)

[Prospective applicants were invited to a pre-application webinar on October 16, 2023. NIH staff discussed the Human Virome initiative and answered](#)



[Home](#) [Tribal Health Research](#) [Tribal Consultations](#) [TAC](#) [News and Events](#) [Resources](#) [About Us](#)

## Native American Research Centers for Health (NARCH) Program Evaluation

[DPCPSI](#) » [THRO](#) » [Tribal Consultations](#)

### Native American Research Centers for Health (NARCH) Program Evaluation

The [Native American Research Centers for Health \(NARCH\) Program](#) provides support for research, career development opportunities to meet the specific health needs identified and prioritized by American Indian (AI) and Alaska Native (AI/AN) Tribes and Tribally based organizations. In February 2021, the National Institute of General Medical Sciences (NIGMS), part of the National Institutes of Health (NIH), [initiated Tribal Consultation](#) [pdf](#) to seek input for the evaluation of the NARCH program. The Consultation was held virtually on June 14, 2021 and feedback received was presented to members of the National Advisory General Medical Sciences Council during its [September 2021 meeting](#). NIGMS released its [Tribal Consultation report](#) [pdf](#) in September 2021, summarizing the input received from Tribal leaders and the Institute's responses.

The [Native American Research Centers for Health \(NARCH\) Program](#) provides support for research, career development opportunities to meet the specific health needs identified and prioritized by American Indian (AI) and Alaska Native (AI/AN) Tribes and Tribally based organizations. In February 2021, the National Institute of General Medical Sciences (NIGMS), part of the National Institutes of Health (NIH), [initiated Tribal Consultation](#) [pdf](#) to seek input for the evaluation of the NARCH program. The Consultation was held virtually on June 14, 2021 and feedback received was presented to members of the National Advisory General Medical Sciences Council during its [September 2021 meeting](#).

#### Background Materials

[Dear Tribal Leader Letter](#) [pdf](#)[Advisory Meeting Recording](#) [video](#)



🤔🤔🤔 Dwight is trippin'



**ICE (US Immigration and Customs Enforcement)**

🕒 This article is more than 7 months old

# Documents offer rare insight on Ice's close relationship with Palantir

**Johana Bhuiyan**  
 Mon 22 Sep 2025 09.00 EDT

[Share](#)

For years, little was known about the multibillion-dollar company that handles data for the US immigration enforcement agency. Now, a cache of emails, training documents and reports sheds light on how Palantir helps Ice with investigations and on-the-ground enforcement



**Urgent: annual press freedom appeal**

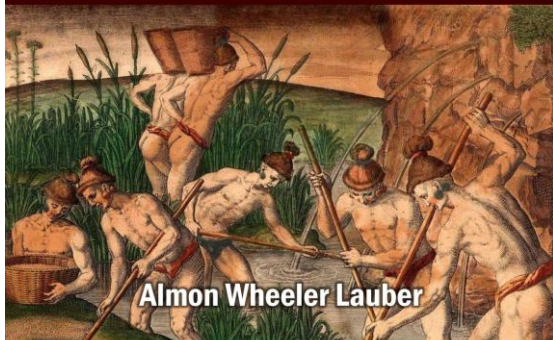
Support us →

Maybe later

You Can't Own the DNA from a Group of People. **THAT IS DIGITAL SLAVERY**

# Indian Slavery

in Colonial Times  
Within the Present Limits  
of the United States (1913)



Almon Wheeler Lauber



Altruistic Omix?



Or DNA envy & exploitation

- 1: I just do my job. Try not to let it get to me**
- 2: it's not your fault the World is the way it is.**
- 1: That's what everyone tells themselves. And nothing ever gets better.**

**Do something.**

**The Window is Closing  
Even Little Things Count**



**The window  
is closing.**

*Mocak*  
Barack Obama

# loxi Mei'amu

Thank you



The Indigenous and independent source for data sovereignty, research, and biodata storage.

[www.nativebio.org](http://www.nativebio.org)



**NativeBio** Data  
consortium



d4itdr.org

**TRIBAL DATA**  
Repository

