



Toward Diversity Equity and Inclusion in CIRM Programs

Maria T. Millan, M.D.
President & CEO
ICOC Meeting
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OUR MISSION

Accelerating world class science
to deliver transformative
regenerative medicine treatments
in an equitable manner to a
diverse California and world



**Nearly 40 percent of Americans
belong to a racial or ethnic minority.**

Image and Data From: Scientific American

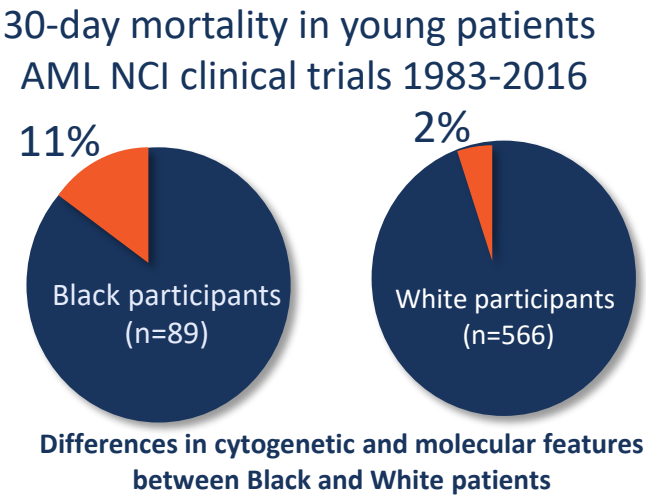


In the recent 5-yrs , Black men have a 6% higher incidence of cancer & 19% higher mortality than white men overall *ACS Journals Feb 2022*

Table 1. Percent Participation in Clinical Trials by Subpopulation* for New Molecular Entities and Therapeutic Biologics Approved in 2020

| | WOMEN | WHITE | BLACK or AFRICAN AMERICAN | ASIAN | HISPANIC | AGE 65 AND OLDER | UNITED STATES |
|---------|-------|-------|---------------------------|-------|----------|------------------|---------------|
| AVERAGE | 56% | 75% | 8% | 6% | 11% | 30% | 54% |

FDA, 2020 Drug Trials Snapshots Summary Report



Larkin et al. Blood Advances 2022

Under representation of racial and ethnic minorities in clinical trials
Disparities in treatment outcome due to genetic differences and social determinants of health

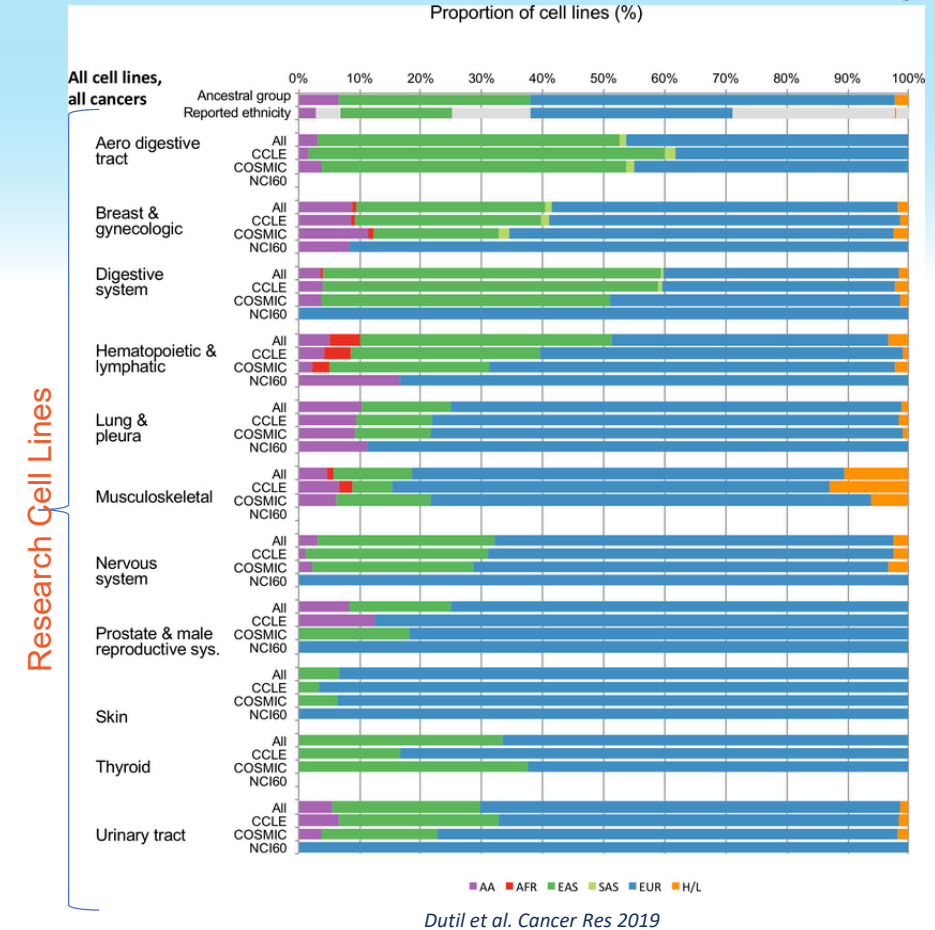
Problem Statement:



It's time to incorporate diversity into our basic science and disease models *Nature Cell Biology Nov 2021*

To address health disparities and facilitate increasingly personalized treatments, we need to develop new models for basic and disease research that reflect diverse ancestral backgrounds and sex, and ensure that diverse populations are included among donors and research participants.

Rick Horwitz, Ekemini A. U. Riley, Maria T. Millan and Ruwanthi N. Gunawardane



Blue = of European descent

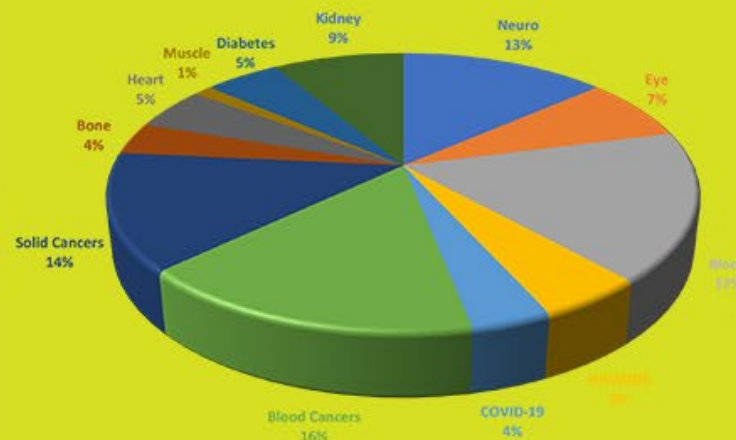
Insufficient diversity in research cell models and genetics data

CIRM-FUNDED CLINICAL TRIALS:



CIRM website

DISEASE AREAS:



*Hataalii,
first child treated with UCSF
gene therapy for Artemis-SCID*

Clinical Trial Grant Applications now require a DEI plan which, in combination with the scientific review, impact scoring, funding decisions and milestone-based contracts

| | Black | Hispanic | White (Non-Hispanic) | Multi Racial | American Indian/ Alaskan Native | Asian | Native Hawaiian/PI |
|--|-------|----------|----------------------|--------------|------------------------------------|-------|--------------------|
| California census | 7% | 39% | 37% | 4% | 2% | 16% | 1% |
| 3004 subjects enrolled in 61 CIRM clinical trials* | 9% | 14% | 58% | 1% | 1% | 5% | 0% |
| US census | 13% | 19% | 60% | 3% | 1% | 6% | <1% |

*As of Q1 2021

2% "other"

9% "unknown"

**Including cancer, neurodegenerative disease, and rare disease (Also as of Q1 2021)

DEI Enhancements to CIRM Clinical Programs:

- DEI milestone incorporated in the Grant Notice of Award to hold the Awardee accountable for their proposed DEI plan
- Monitor DEI Plan implementation and progress through Quarterly Reports and Clinical Advisory Panels
- Improve tracking of demographics along with disease indications and expanded categories, including social determinants, in accordance with best practices and evolving descriptors and guidelines (e.g. State of California, National Academies, NIH)

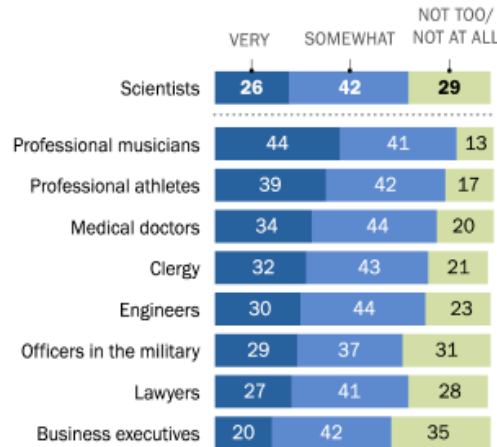
Hispanic workers make up 17% of total employment across all occupations, but just 8% of all STEM workers.

(Pew Research Center analysis of federal government data)

Relatively few Hispanic adults see scientists as welcoming to Hispanic professionals in these jobs

% of Hispanic adults who say ...

Each professional group is __ welcoming of Hispanic people in these jobs

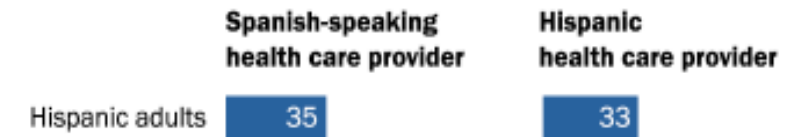


Pew Research Center

Patients are most likely to participate in a trial when asked by a trusted provider (Woodcock et al. NEJM 2021)

About a third of Hispanic adults say they would prefer a health care provider who speaks Spanish

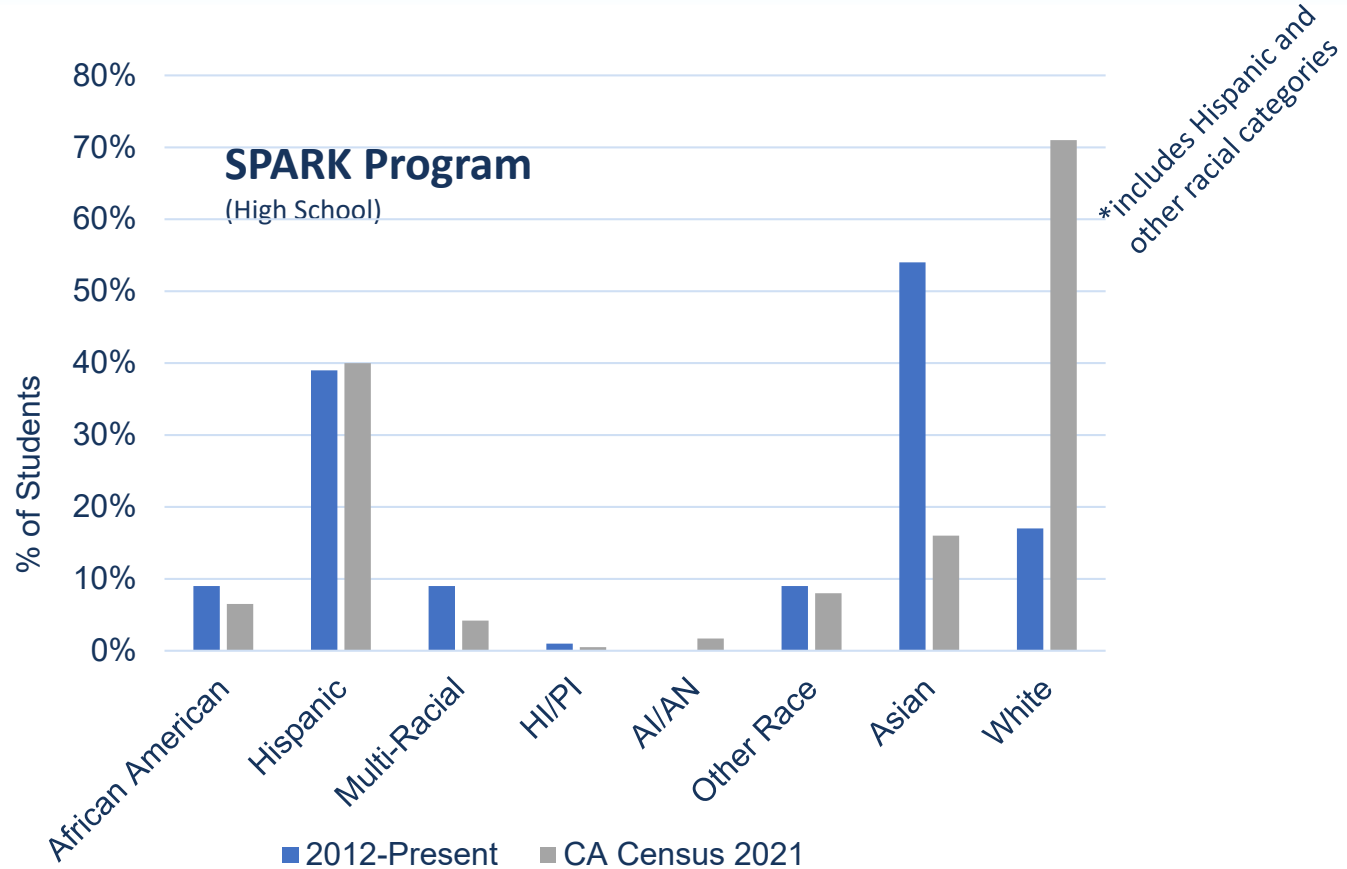
% of Hispanic adults who say they would strongly or somewhat prefer a health care provider for routine care who is a ...



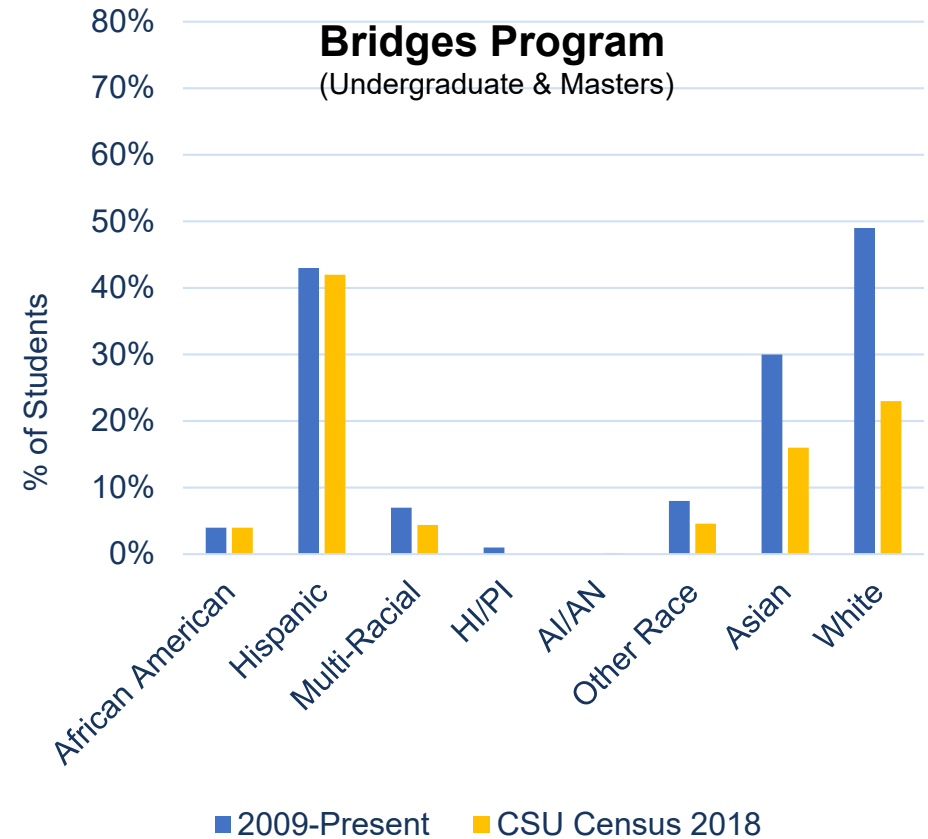
Pew Research Center

Goal: Foster a culturally competent and diverse scientific and medical workforce

CIRM Education programs under Prop 71 were designed to “broaden participation of individuals representing the diversity of California” including those who “may not have had opportunities” and are “hindered by socioeconomic constraints.”



N for Race = 454
N for Ethnicity = 307



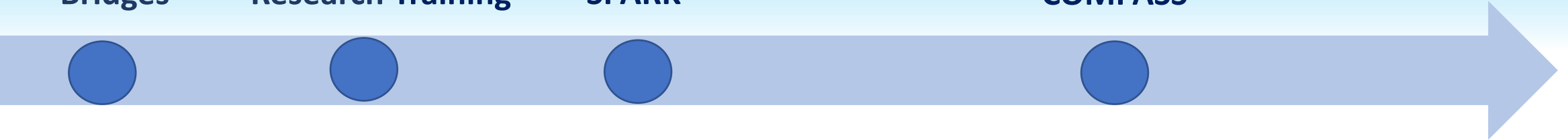
N for Race = 1587
N for Ethnicity = 994

Bridges

Research Training

SPARK

COMPASS

- 
- DEI Plan and Track Record of Program's Leadership Team
 - Increased stipends/budget to help attract/retain socio-economically disadvantaged trainees
 - Added Alumni Tracking Plan
 - Programs required to define metrics, self assess and address gaps in DEI performance/accountability
 - Knowledge sharing of innovations and developments around DEI
 - Collect demographic and socioeconomic data on total applicant pool
 - Active course correction based on disparities in applicant pool versus selected pool
 - Grantees to define "underrepresentation baseline" at their institution

Spotlight Presentation:

How DEI is promoted through CIRM's Grant Review Process

By Gil Sambrano, Ph.D., VP Portfolio Development and Review