The Chan Zuckerberg Science Initiative -- Mission

Supporting the science and technology that will make it possible to cure, prevent, or manage all disease by the end of the century.

10 Year Plan
Accelerating biomedical science by developing new tools and technologies and supporting open, collaborative models of research.

Our Values
People
Technology
Collaboration
Open Science
Accelerating Biomedicine

We Fund Grants and RFAs

We Collaborate

We Build Science Tech Team

We Engage Science in Society

Phil Smooth
Head of Science Technology
Vice President of Engineering
Programs

Experiments in accelerating science

Building tools and resources, for and with scientists

Changing the culture of science

- CZ Biohub
- Single-Cell Biology
- Neurodegeneration Challenge Network
- Science in Society
- Imaging
- Open Science
A technology-focused research site that brings together scientists, engineers, and physicians, linking 80+ faculty members from UCSF, Berkeley, and Stanford University

Steve Quake (cell bio) and Joe DeRisi (ID) Co-Presidents

March 2020: Sars-CoV-2 testing in SF
Building Capacity for Pathogen Sequencing

Metagenomics: IDseq

Sars-CoV-2: Aspen
Open Science

1. Tools & resources for research
2. Education & capacity building
3. Metrics & incentives
4. Sharing platforms
5. Improved infrastructure technology & integration
Single-Cell Biology
Defining and describing the parts list of the human body

Human Cell Atlas  funding
A global effort to map all 37 trillion cells in the human body as a resource for studies of health and disease

Tools  funding and building
cellxgene
Human Cell Atlas Data Coordination Platform
Single-Cell Biology
Defining and describing the parts list of the human body

COVID-19 Cell Atlas

Healthy donors

Patient donors
Reference data should be representative

REQUEST FOR APPLICATIONS
SINGLE-CELL BIOLOGY

Ancestry Networks for the Human Cell Atlas

This RFA supports researchers to contribute healthy, single-cell reference data from ancestrally diverse tissue samples to the Human Cell Atlas, with the aim of creating a more globally representative resource to understand disease.

How to Apply

REQUEST FOR APPLICATIONS
SINGLE-CELL BIOLOGY

Pediatric Networks for the Human Cell Atlas

This grant program supports researchers to contribute pediatric tissue samples to the global Human Cell Atlas as a foundation for understanding how cells and organs progress and relate to disease onset in children.

RFA Details
Population-scale single-cell RNA sequencing of blood cells from multi-ethnic cohorts

Deeply phenotyped cohort
- Imaging
- Clinical phenotypes
- Questionnaire
- Pathology
- eHRs
- Genome sequencing

scRNA profiling of PBMCs

Integrative analyses
- Comprehensive characterisation of blood cell types, states, and ratios in diverse human populations
- Contributions to human biomedical traits and diseases

Principal investigators
- Nicole Soranzo (WSI)
- Sarah Teichmann (WS)
- Oliver Stegle (WSI/DKFZ)
- Hilary Martin (WSI)
- David van Heel (QMUL)
Imaging and Microscopy: Access, Training, Sharing

IMAGING SCIENTISTS

- **Technical Experts** 40 imaging experts in the US and Europe supporting local communities of biomedical researchers

NETWORKS

- **Global Bioimaging (GBI)** 11 countries worldwide
- **Bioimaging North America** (part of GBI) United States, Canada, Mexico

EQUITY

- **Expanding Global Access to Bioimaging** (new RFA, opens today) Africa, Latin America and the Caribbean, former Soviet countries
Diversity, Equity, and Inclusion in Science

Supporting Student Diversity in STEM -- California
With CZI support, UC San Diego and UC Berkeley are implementing aspects of UMBC’s Meyerhoff Scholars Program to support underrepresented students in STEM.

An Equity Lens for Our Work -- US and International
Who benefits from science? To cure all diseases in all people, we cannot propagate existing biases and omissions, but must focus our work on the people with the greatest unmet needs.

Partners and Grantees -- Everyone
We encourage applications from a wide variety of expertise areas, fields, geographic locations, and institutions, led by teams made up of individuals of different ethnicities and genders.
What does success look like?

**Productivity**
Publications, preprints, software, datasets, protocols, resources

**Reach**
Deposition in public repositories, requests and re-use citations, clinical applications, commercial development

**Collaborative contributions**
Diversity, equity, and inclusion, leadership, co-authorship, success of students and postdocs
Thank you!