



# AIM-AHEAD Bridge2AI AI-READI Training Program

## Cohort 2

**Informational Webinar**

September 08, 2025, 2:00pm Central

*AIM-AHEAD is a nationwide network of institutions and organizations designed to build AI talent among researchers and clinicians, support multidisciplinary research projects that harness AI/ML to improve the health of Americans, and enhance the AI capabilities and infrastructure of communities or hospitals that otherwise would not have had the resources or the capacity to benefit from the advancement of AI/ML.*

# The AIM-AHEAD Coordinating Center



The A-CC consists of four cores, focused on various initiatives to achieve AIM-AHEAD's mission.

## Leadership Core

Lead, recruit, and coordinate the AIM-AHEAD Consortium

## Data Science Training Core

Assess, develop, and implement data science training curriculum

## Data and Research Core

Address research priorities and needs to form a comprehensive basis for AI/ML

## Infrastructure Core

Assess data, computing, and software infrastructure to facilitate AI/ML and health research



# NIH Leadership Team



**Samson Gebreab, Ph.D. MSc.**  
*Program Lead, AIM-AHEAD  
Office of Data Science Strategy,  
NIH*



**Shurjo K. Sen, Ph.D.**  
*Program Director, Bridge2AI  
Office of Genomic Data Science,  
NIH*



**Haluk Resat Ph.D.**  
*Program Lead, Bridge2AI  
Office of Strategic Coordination  
NIH*



**Dr. Emir Khatipov**  
*Program Director, AIM-AHEAD  
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**Eva Lancaster, Ph.D.**  
*Program Director, AIM-AHEAD  
Office of Data Science Strategy,  
NIH*

# Program Leads



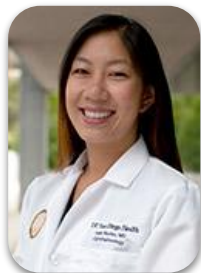
**Jamboor Vishwanatha, PhD**  
UNT Health Science Center  
AIM-AHEAD PI



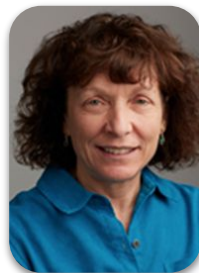
**Toufeeq A. Syed, PhD**  
University of Texas Health Science  
Center,  
Houston, TX  
AIM-AHEAD MPI



**Gordon Gao, PhD**  
Johns Hopkins University  
AIM-AHEAD DSTC MPI



**Sally Baxter, MD, MSc**  
UC San Diego  
AI-READI MPI



**Linda Zangwill, PhD**  
UC San Diego  
AI-READI MPI



**Damaris Javier, PhD**  
UNT Health Science Center  
Program Co-Director

# Program Partnership



BRIDGE2AI



## Partnership

**Strategic Collaboration:** AIM-AHEAD and Bridge2AI are working together to provide specialized AI/ML training using shared resources and expertise.

**Combined Expertise:** AIM-AHEAD's strength in trainee engagement and Bridge2AI's AI data and curriculum deliver a comprehensive training experience.

**Focus on Training:** The partnership emphasizes hands-on experience with real-world biomedical data and AI/ML tools.

**Goal:** Build a skilled workforce prepared to advance AI/ML applications in health research.



# Program Purpose



The Bridge2AI AI-READI Training Program engages AIM-AHEAD trainees in hands-on use of the AI-READI dataset and Fairhub.io platform. The program expands access to AI-READI data through training in AI/ML methods, responsible research practices, and a train-the-trainer model. Trainees will apply their learning to conduct novel research, leveraging a multi-modal array of data elements to develop research projects using real-world data.



## Data

Broad, FAIR, AI-Ready



## Ethics

Accurate, Reliable,  
Ethically Sourced

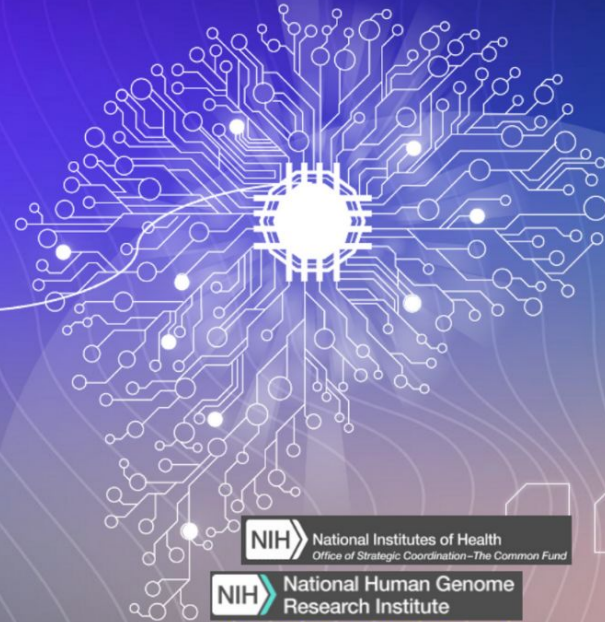


## People

Varied teams & research  
cohorts, Training



Generate new data & best practices to **propel modern AI/ML models** toward scientific pioneering, advance **a new culture of ethical consideration** around the data, and create a **modernized workforce** that is skilled in this new method of scientific data creation.



**NIH** National Institutes of Health  
Office of Strategic Coordination–The Common Fund

**NIH** National Human Genome  
Research Institute

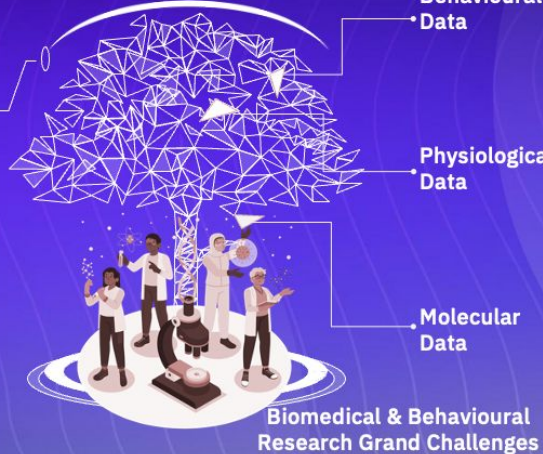
**NIH/NHGRI and NIH/CF Awards**



# BRIDGE2AI



**Scientific  
Discovery  
Pipeline**



Data Preparation

Analysis First

Model-Driven  
Experimental Design

AI/ML Model  
Development

Biomedical &  
Behavioural Science  
Discovery



Public Data  
Repositories

BRIDGE2AI

Model Development

NIH/NHGRI and NIH/CF Awards

University of Colorado  
Anschutz Medical Campus

NIH National Human Genome  
Research Institute

NIH National Institutes of Health  
Office of Strategic Coordination-The Common Fund

M. Munoz-Torres

## Data Generation Project

## Data Types

### Functional Genomics (CM4AI)

Mapping cell architecture, interpreting cell function/structure in health & disease

Cell maps, immunofluorescence, spectrometry (AP-MS), evidence (metadata)

### Voice

As a biomarker of health: development, respiratory & sleep disorders, mental health, etc.

WGS, tomography (CT), magnetic resonance, X-Rays, voice, consent, surveys, demographics, vital signs

### Salutogenesis (AI-READi)

Restoring health after disease

WGS, tomography (OCT), ophthalmic imaging, clinic & labs, surveys (SDoH, diet, MoCA), glucose, activity, HR, SpO2, EKG, AirQI

### Critical Care (CHoRUS)

ICU diagnosis & risk prediction

Labs, treatments, telemetry, EEG, non-medical factors, practice metadata



M. Munoz-Torres.

NIH/CF Awards



University of Colorado  
Anschutz Medical Campus



National Institutes of Health  
Office of Strategic Coordination—The Common Fund





## Bridge Center

**Integrate**

- Across data types\*, metadata, ethical best practices, PEDP
- Generate *best practices* for people, ethics, and data for future AI/ML models
- Knowledge base of *lessons learned* from Bridge2AI team science

**Disseminate**

- Consensus guidelines for the broader biomedical AI community
- Access to collected datasets
- Public outreach and stance on difficult issues

**Evaluate****Evaluate**

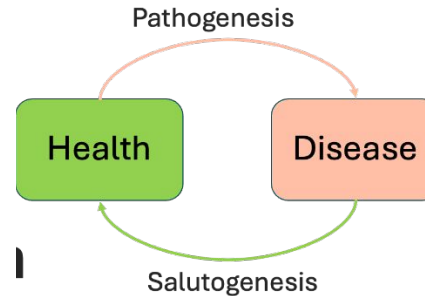
- Assessment and establishment of validity for best practices
- AI/ML readiness of datasets
- Extent of outside adoption of Bridge2AI products
- Stakeholder engagement

Best practices for AI/ML in biomedical and behavioral research

# About AI-READI

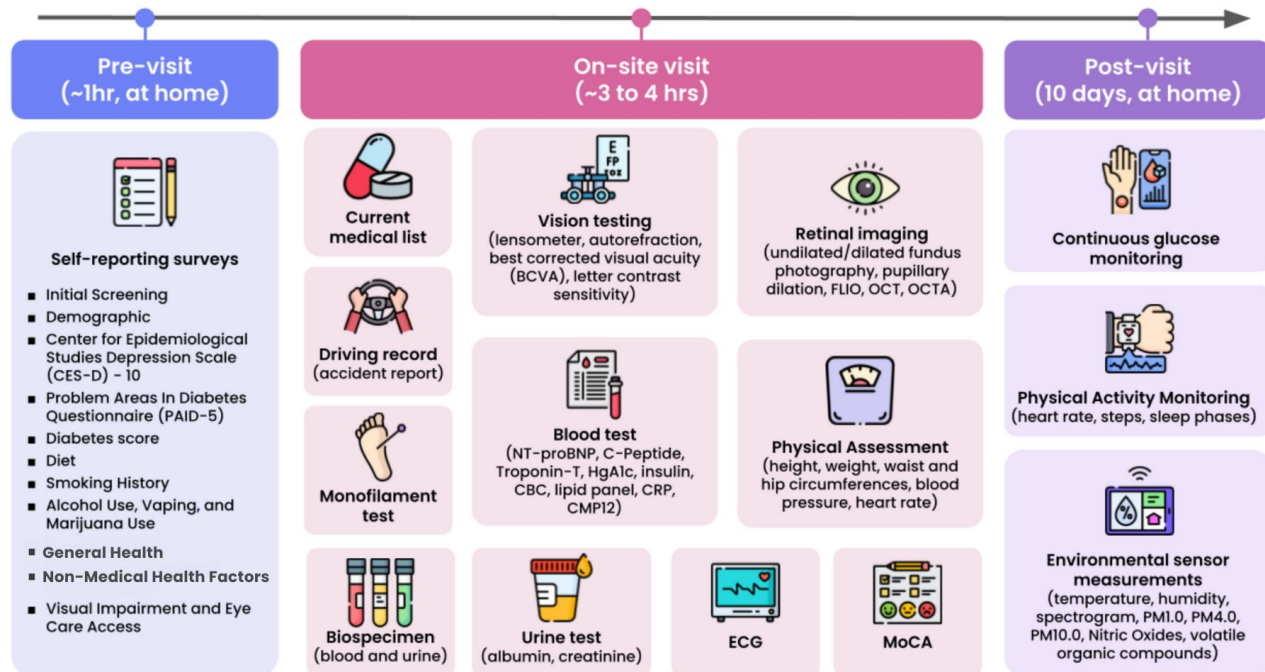


The goal of the **Salutogenesis Data Generation Project (DGP)** is to create a multidimensional, responsibly-sourced dataset in people for studying **salutogenesis** in Type 2 Diabetes and to support future AI-driven discoveries in diabetes.



# About AI-READI

## Data collection



FLO = Fluorescence Lifetime Imaging, OCT = Optical Coherence Tomography, OCTA = Optical Coherence Tomography Angiography, ECG = Electrocardiogram, MoCA = Montreal Cognitive Assessment, PM1.0, 4.0, and 10.0 = Particulate matter less than 1, 4, and 10 microns, respectively



# Training Overview



**Trainees will receive hands-on training on the Bridge2AI AI-READI dataset and Fairhub.io platform, applying AI/ML methods and research skills to develop research proposals using real-world data. Training will include:**

**Foundational AI/ML Training**

**Analyzing Bridge2AI  
AI-READI data**

**Ongoing mentorship and support**

**Basic Biomedical Research  
Concepts**

**R. Python, Jupyter notebooks,  
and model development**

**Overview of AI-READI Domains**

**Foundations of ethical research  
and ethical considerations in  
AI-READI**

**Virtual live courses and  
workshops**

**Abstract development using  
AI-READI data**

## Training on the AI-READI Dataset

- Learn how to use the FAIRhub platform and gain access to the AI-READI dataset
- Receive mentorship from AIM-AHEAD and technical support from AI-READI to assist them in completing research proposals and projects using these data
- Engage in workshops on how to access and analyze the AI-READI data
- Gain exposure to a multi-modal array of data domains involved in the AI-READI dataset, including **unique data types such as retinal imaging data, EKG/waveform data, environmental sensor data**, and others

# Program Trainee Objectives



## Objective 1

The trainee will exhibit advanced expertise in AI/ML principles.



## Objective 2

The trainee will develop and present feasible and detailed research proposals to enter into Fairhub, utilizing the expertise and insights gained from the program.



## Objective 3

The trainee will prepare a compelling poster presentation for the Bridge2AI and AIM-AHEAD Annual Meetings, submit an abstract for a health informatics or other scientific conference, and/or develop a manuscript for a peer-reviewed journal.



## Outcome

After completing the program, trainees will have gained exposure to foundational principles in AI/ML, learned specifically how to work with the NIH Bridge2AI AI-READI dataset, and completed a research project using this data to advance their overall training and career development.

# Curriculum Overview



## AFT (AI Foundational Training using AI-READI Data)

### Module 01

Foundations of AI

### Module 04

Generative AI

### Module 02

Classic Machine Learning

### Module 05

Human-AI fusion

### Module 03

Deep Learning

### Module 06

Responsible and Robust AI



## Two Vibe Coding Workshops



# Trainee Expectations



**In order to successfully complete the program, selected trainees must:**

**Time Commitment:** Be able to commit to 8 hours per week (on average) of coursework and synchronous class sessions

**Attendance:** Attend one virtual, synchronous class session per week (day of the week and time TBD)

**Assignments:** Complete all assigned milestones and goals

**Presentation of Work:** Attend both the AIM-AHEAD Annual Meeting (July 2026) and the Bridge2AI Annual Meeting (May 2026) and present a works-in-progress poster.

\*These are both in-person events and a travel allowance will be given to each trainee for travel expenses.



# Program Benefits



## Stipend

An \$8,000 stipend upon successful completion of trainee milestones

Travel allowances to attend both the AIM-AHEAD Annual Meeting and the Bridge2AI Conference in 2026



## Support

Support and guidance from an experienced AIM-AHEAD mentor

Support from the AIM-AHEAD Data Science Training Core

Direct 1:1 guidance, virtual office hours, HelpDesk support, and concierge services supporting projects using AI-READI data



## Training

Training on:

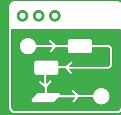
- Basic biomedical research concepts and human subjects research protection
- Foundations of ethical research and ethical considerations in AI-READI
- Stigma and Stigmatizing Research
- Biology and Society
- Social Responsibility in Research
- Overview of the domains in AI-READI
- R, Python, Jupyter notebooks, and model development
- Analyzing Bridge2AI AI-READI data

# AIM-AHEAD Mentorship Process



Each trainee will be matched with a mentor who will provide ongoing support throughout the training program. Mentors are matched with mentees using the Connect Platform. Mentorship matches are made using:

**AIM-AHEAD  
CONNECT**



**AI Algorithm**



**Administrative  
Matching**



**Mentor Pool  
Search**

# Applicant Eligibility



## Citizenship and Tax Requirements

- ✓ Must be a U.S. Citizen, Permanent Resident, or Non-Citizen U.S. National
- ✓ Permanent Residency must be established by Sept. 26, 2025
- ✓ Temporary visa holders (F1, J1, H1, etc.) are not eligible
- ✓ Accepted candidates must be able to submit a W-9 form

## Participation Restrictions

- ✓ Current/former AIM-AHEAD program participants (awardees, fellows, trainees, mentors, advisors, coaches) are ineligible
- ✓ Applicants may apply to more than one AIM-AHEAD training program but can only be selected for one

## Special Cases

- ✓ AIM-AHEAD Coordinating Center personnel and Federal employees may participate, but will not receive stipend or travel allowance

*Note: Please refer to the full CFA on [AIM-AHEAD.net](http://AIM-AHEAD.net) for all eligibility requirements.*

# Education & Experience



## Education Requirements

- ✓ Minimum: Bachelor's degree in physical sciences, life sciences, math, statistics, data science, engineering, health sciences, or public health
- ✓ Eligible applicants include: post-baccalaureate and graduate students, postdocs, medical students/residents, allied health trainees, early-career investigators, and early-career professionals in non-academic institutions

## Required Skills

- ✓ Prior programming experience
- ✓ Basic understanding of statistics
- ✓ Working command of English

## Recommended Skills

- ✓ Coursework in probability and statistics or higher-level math
- ✓ Coding experience in R or Python
- ✓ Experience with data manipulation and management through coursework or research

*Note: Please refer to the full CFA on [AIM-AHEAD.net](http://AIM-AHEAD.net) for all eligibility requirements.*

# Eligibility Requirements



## Eligible Organizations

**Higher education institutions**

**Nonprofits**

(with or without 501(c)(3) status)

**For-profit businesses and organizations**

**Local, state, and tribal governments**

**Other U.S.-based organizations**

(e.g., school districts, housing authorities, faith-based, community-based, and regional organizations)

## Email Requirement

In order to gain access to the AI-READI dataset, you will need to have a “.edu” email address.\*

\*This requirement is not a barrier to acceptance into the program.

Program administrators will assist with this access if needed.

*Note: Please refer to the full CFA on [AIM-AHEAD.net](http://AIM-AHEAD.net) for all eligibility requirements.*



# Application Requirements



**Submission Deadline:** September 26, 2025 by 11:59 PM EST

## Required Application Elements

- **Profile Information** (basic applicant details in InfoReady portal)
- **Letters of Support & Recommendation**
  - Supervisor letter confirming protected time
  - At least one faculty recommendation (additional letters optional)
- **Academic Transcript** (undergraduate and, if applicable, graduate)
- **Biographical Sketch** (NIH biosketch or CV, max 5 pages)
- **Statement of Rationale** (≤2 pages) describing goals, need for training, relevant experience, and long-term plans

## Important Note

- Applicants may apply to more than one program but can only be selected for one
- Applicants will rank program preferences in the application

*\*This is just an overview. Please see the CFA for the full list of application requirements*

# Application Process

***Applications must be submitted between September 02, 2025 and September 26, 2025 at 11:59 PM EST***

**Note:** Please use Chrome, Firefox, or Edge browsers.

1

**Familiarize  
yourself with the  
program  
requirements  
outlined in the call  
for applications**

2

**Gather all of the  
required  
application  
materials**

3

**Create an  
account on  
AIM-AHEAD  
Connect and  
register as a  
“mentee/learner”**

4

**Submit  
application for  
review using the  
InfoReady  
platform**



**Up to 25 trainees will be selected**

# Key Program Dates



**CFA Release Date**

September 02, 2025



**Application Deadline**

**September 26, 2025 by 11:59 PM EST**



**Notice of Award**

November 10, 2025



**Program Start Date**

**November 17, 2025**



**Bridge2AI Conference 2026**

May 2026



**AIM-AHEAD Annual Meeting 2026**

July 2026



**Program End Date**

**July 31, 2026**

# Questions?



Please see the FAQ  
document linked  
above and in the chat



Scan the QR code above  
to access the  
AIM-AHEAD Bridge2AI  
AI-READI CFA.