



UNIVERSITY OF MIAMI

FROST INSTITUTE  
for DATA SCIENCE  
& COMPUTING

IDSC GRANTS PROGRAMS

Expanding the Use of  
Collaborative Data Science at UM



# Goals | Requirements

- Using Data Science to foster disciplinary pursuits
- Making the research team more competitive for external funding
- Applications must include at least one data scientist and one disciplinary specific researcher
- Typically, the disciplinary researcher initiates and leads the project
- Awards include \$20K & 1M SUs
- Monies to be used for salary & travel only
- No equipment purchases allowed.

# Application Process

## Step 1

- One page letter of intent
- Includes discussion of disciplinary research and how Data Science fits in.
- If IDSC partner not identified, then review panel will identify.

## Step 2 (one month later)

- Upon invitation, the research team (including IDSC partner) will prepare two-page proposal.
- Discuss disciplinary research, Data Science, potential future funding mechanism & budget plan.



# Review Process

The applications will be reviewed by an **evaluation committee** to determine feasibility, relevance to IDSC programs, and in terms of how the proposed research will put the team in a more competitive position for external funding.



# Reporting

- Interim 1-page report
- Upon completion of the project, the research team will be required to give an **oral presentation** describing the research and results as part of the IDSC seminar series. Scheduling of the oral presentation will be coordinated by IDSC.



# Important Dates

- **Step 1** - Letters of Intent due **September 27, 2024**
- Invitation to proceed to Step 2 by **October 14, 2024**
- **Step 2** - Two-page proposal due **November 22, 2024**
- Notice of Award: On or before **December 18, 2024**
- Project performance period: **January 1 – December 31, 2025**
- Interim Report Due on **June 30, 2025**
- Service Units (SU) expire **January 31, 2026**
- Final Report Due on **February 28, 2026**
- Oral Presentation of Results Due in Spring or Fall 2026



# Capabilities and Services through IDSC Platform Technologies

- **Advanced Computing**
  - ▶ HPC Resources
  - ▶ User Training
  - ▶ Grant Collaborations
  - ▶ Data Management
  - ▶ Grant Collaborations
  - ▶ Data Management
- **Visualization and Infographics**
- **Systems + Data Engineering**  
**[ for collaborative projects ]**
  - ▶ Software Engineering
  - ▶ Data Engineering
  - ▶ Geospatial Digital Special Collections (GDSC)
- **Creative Technologies**
  - ▶ Equipment and Technical Support
  - ▶ Learning with XR



# Expert Capabilities through IDSC Research Platforms



## Earth Systems Science

How can we understand and protect the health of our planet?



## Digital Health + Life Sciences Informatics

How can we prevent disease and advance human health?



## Smart Cities + Smart Environments

How can we build stronger communities?

**ANALYZE:** Artificial Intelligence + Machine Learning/Intelligent Systems

**INVENT:** Advanced Computing Systems + Software Engineering

**VISUALIZE:** Human Centered Design + Computing

**ADVOCATE:** Data Ethics + Society





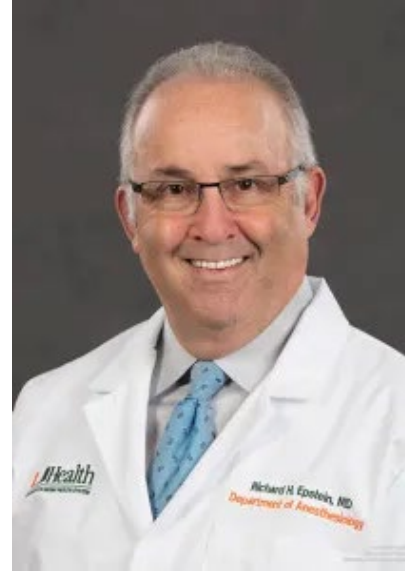
# Fall 2023 Awardees



**Francisco Beron-Vera**  
Atmospheric Sciences



**Charles Downs**  
Nursing + Health Studies



**Richard Epstein**  
Anesthesiology



**Youngmee Kim**  
Psychology



**Vivek Nagendra Prakash**  
Environmental Justice Clinic