

FSU
WELCOME

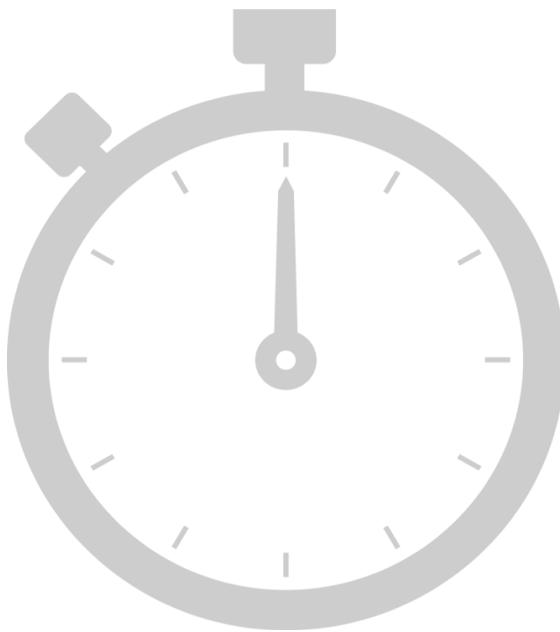
2025 Postdoctoral
Fall Symposium

The Office of Postdoctoral Affairs
The Graduate School | Florida State University

FSU

The Office of Postdoctoral Affairs

Presents:



FIVE MINUTE RESEARCH

POSTDOC COMPETITION



Florida State University



THANK YOU TEAM!

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Application Developer, Designer

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*Postdoctoral Scholar in Biological Science
PDA President*

Joy Stein
Event Administrative Specialist

Kyle Wilson
Geoset Studios!

Calem Wooten
Graduate Enrollment Specialist

Postdoctoral Association Leadership Team! - Pearl Key-Rivers (President), Olivia Cook (Senior Advisor), and Betsy Mansfield (Senior Advisor).



THANK YOU JUDGES!

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Jennifer Winegardner

*RW Law Firm
Civil Litigator*



Yijiong Yang

College of Nursing

Genes, Health, and Heritage: How DNA and Ancestry Shape Our Metabolic Profiles

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Metabolic Syndrome Diagnostic Criteria

Central Obesity

Waist Circumference

>40 inches for men,
>35 inches for women

Metabolic Markers

Glucose

≥100 mg/dL or diabetes

Triglycerides

≥150 mg/dL

HDL Cholesterol

<40 mg/dL (men),
<50 mg/dL (women)

Blood Pressure

≥130/85 mmHg or
hypertension

Diagnosis

MetS Criteria

≥3 of 5 components
present

Validation

AHA/NHLBI
standardized criteria

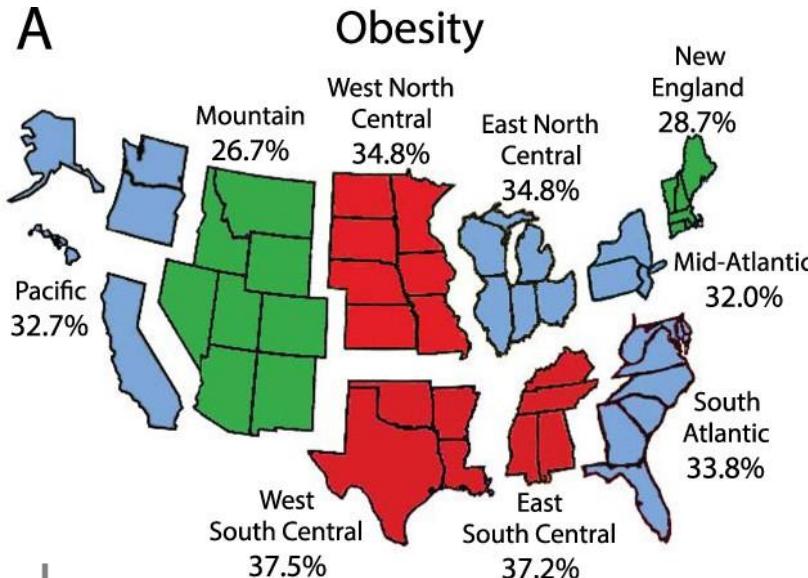
3+
Criteria Required

5
Total Components

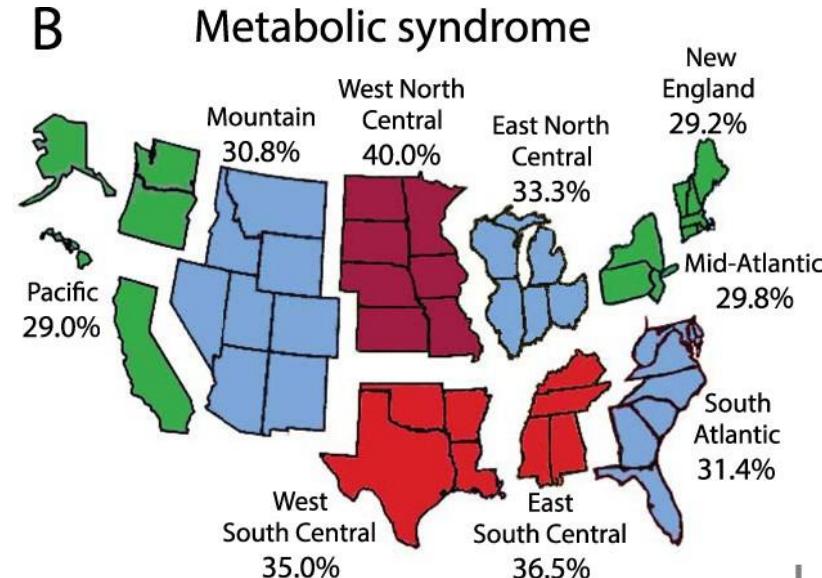
Population-specific thresholds
Ethnic Variation

Prevalence of obesity, metabolic syndrome, and diabetes by US census division

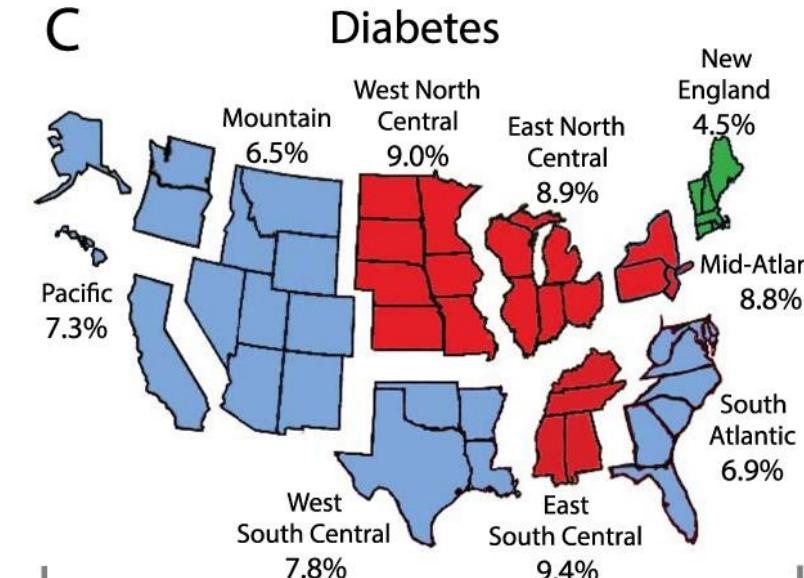
A



B



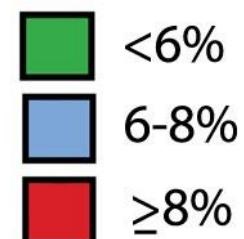
C



Prevalence of Obesity & Metabolic Syndrome:



Prevalence of Diabetes:



Study Population Overview

633,547
Total Database

134,479
Initial Cohort

122,620
Final Analysis

16,113
Hispanic Focus

Demographics

Diverse ancestry representation
with comprehensive phenotyping

- White: 74,059 (60.4%)
- Black: 22,494 (18.3%)
- Hispanic: 16,113 (13.1%)

Clinical Variables

Comprehensive metabolic and
lifestyle assessment

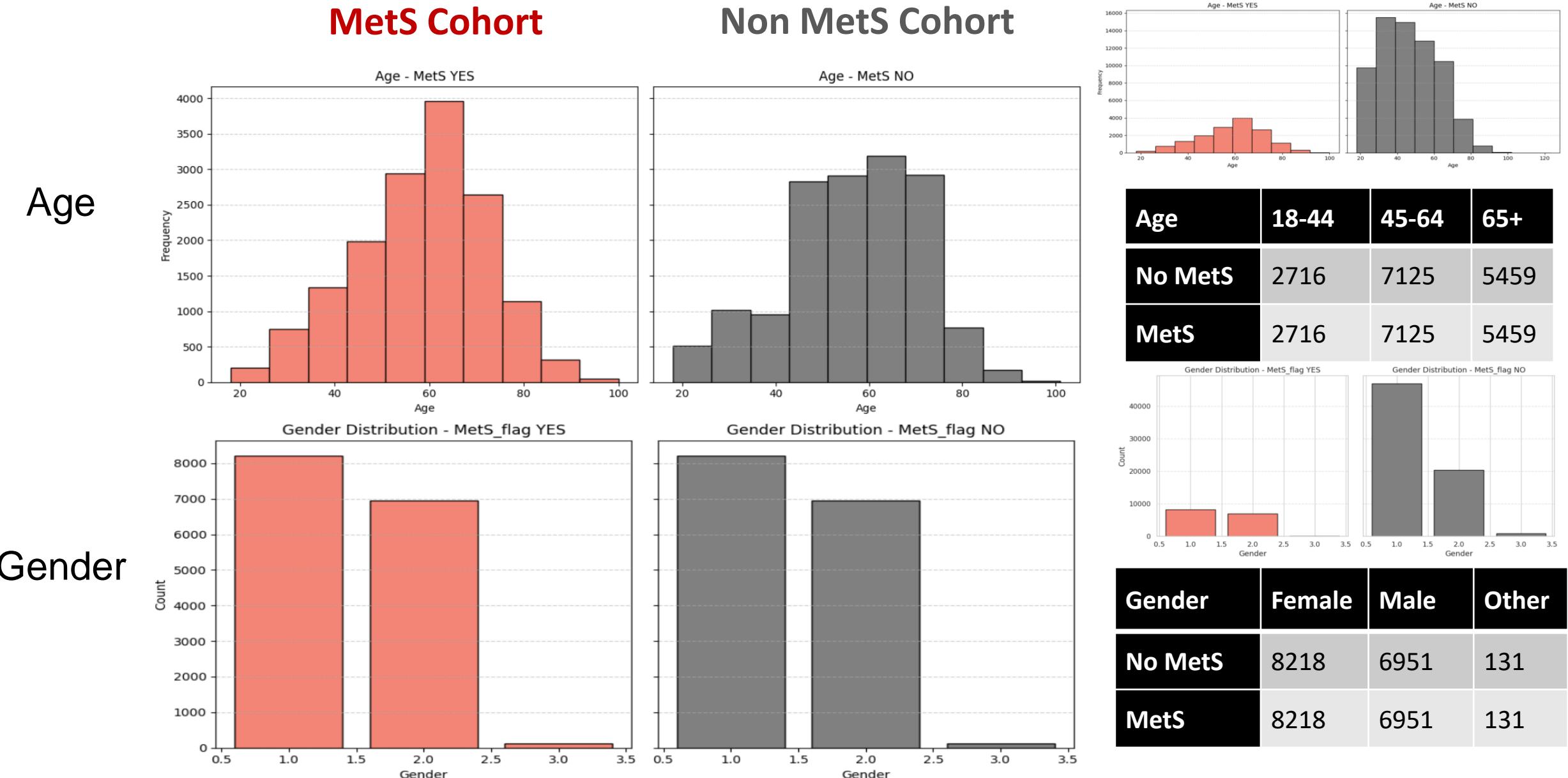
- Waist circumference: 459,070
- BMI metrics: 508,970
- Blood pressure: 13,438
- HDL Cholesterol:

Covariates

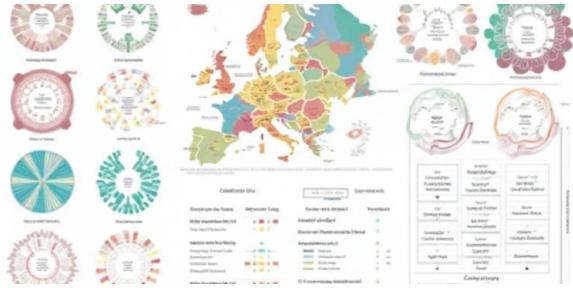
Extensive confounding variable
adjustment

- Environment: pollution, SES
- Lifestyle: diet, exercise, smoking
- Medical history: diabetes, CVD

Cohort Balancing Using Propensity Score Matching



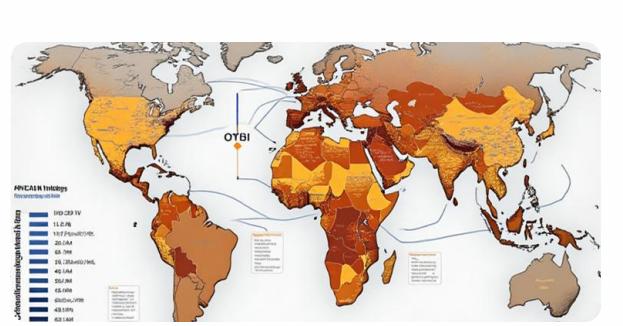
Ancestry Stratification



European ancestry analysis

White

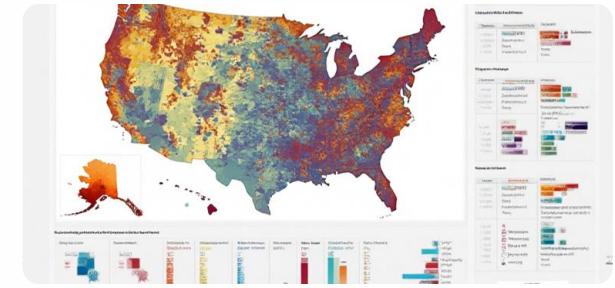
- Largest group: 74,059
- Genome-Wide Association Study
- Genetic associations linked to higher risk of obesity and blood sugar



African ancestry population

Black

- 22,494 participants included
- Distinct genetic architecture
- Ancestry-specific risk variants in blood pressure and cholesterol risk



Admixed American ancestry

American Hispanic

- 16,113 participants analyzed
- Primary focus population
- Complex admixture patterns

All of Us Biomedical Researchers Scholars Program



DEPARTMENT OF
MOLECULAR & HUMAN
GENETICS

Metabolic Mosaic Team

Vinay Raj (University of Arkansas at Pine Bluff),
Yijiong Yang (Florida State University),
Minal Jamsandekar (Cold Spring Harbor Laboratory),
May Cheung (Brooklyn College),
Xiaowei Hu (University of Virginia)

FSU College of Nursing



Jing Wang
Dean and Professor
PhD, MPH, RN, FAAN



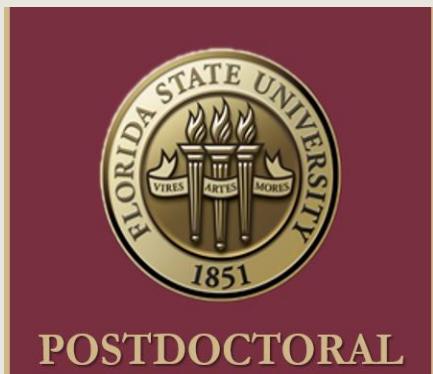
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Postdoctoral
Scholar
PhD, MPH



FLORIDA STATE
UNIVERSITY

Thank you!

Question & Answer

The Office of Postdoctoral Affairs
The Graduate School | Florida State University

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PEOPLE'S CHOICE AWARD

**Vote for your favorite
presentation!**

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PEOPLE'S CHOICE AWARD

**To Vote = Scan the QR Code and Then
Click Your Favorite Number!**

1 - Yu-Jou Chou

Plastic in Our Plates, Plastic in Our Bodies?

2 - Evan Lloyd

How Evolution Shapes the Brain

3 - Anirudh Lakshmi Narasimha Prasad

Taming Jet Roars with Tiny Lightening Zap

4 - Sagiv Shiber

Exploding Stars - The Role of Magnetic Fields

5 - Ashley Allen Carr

Living Glass in Space

6 - Buna Bhandari

*Isolation within Isolation: Unmasking
COVID-19 Stigma*

7 - Yijiong Yang

*Genes, Health, and Heritage: How DNA and Ancestry Shape Our
Metabolic Profiles*

8 - Saptarsi Mitra

From Smell to Appetite: Linking Odors with Feeding Circuits

9 - Behrouz Ghazi Esfahani

Seeing is Curing: Cyro EM in the Fight Against Respiratory Pathogens

10 - Shekhar Chauhan

Memory and Math Across the Nations



FSU
AWARDS & RECEPTION

Please join us for refreshments
and award presentations

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PROGRAM END

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