

National Advisory Child Health and Human Development Council

September 4, 2024

OPEN SESSION

Chris J. McBain, PhD
Scientific Director



Outline

- NICHD Intramural Program Overview
- Budget & Personnel Updates
- Office of Education Updates
- Competitive Funding Opportunities



NICHD Intramural Program Overview

NICHD Intramural Program

Made up of 7 divisions:

- Division of Developmental Biology
- Division of Translational Medicine
- Division of Molecular and Cellular Biology
- Division of Neurosciences and Cellular and Structural Biology
- Division of Basic and Translational Biophysics
- Division of Translational Imaging and Genomic Integrity
- Division of Population Health Research



Who we are in numbers

- Total personnel of ~850 staff
 - 68 PIs (57 Tenured; 9 Tenure-Track; 2 Assistant Clinical Investigators)
 - 64 Staff Scientists
 - 254 trainees (graduate, postbac, postdoc, and clinical fellows)
- Basic and clinical programs are divided into 12 scientifically based affinity groups
- Epidemiologic programs of DiPHR are divided into 3 branches and 1 program
- 63 Clinical Protocols
- 2 Accredited Medical Training Programs
 - Reproductive Endocrinology & Infertility
 - Pediatric & Adolescent Gynecology





NICHD Division of Intramural Research

Updated September 2024

OFFICE OF THE CLINICAL DIRECTOR
 Clinical Director: Catherine Gordon
 Deputy Clinical Director: Laverne Mensah
 Director of Clinical Research & Compliance: Karim Calis
 Associate Director for Protocol Navigation: John Perreault
 Chief of Staff: Mahlet Asrat

OFFICE OF THE SCIENTIFIC DIRECTOR
 Scientific Director: Chris McBain
 Deputy Scientific Director: Henry Levin
 Deputy Scientific Director for Science Management: Erin Walsh
 Chief of Staff: Sara King

ADMINISTRATIVE MANAGEMENT BRANCH
 Deputy Director Administration & Budget, Chief,
 AMB: Francie Kitzmiller

RESEARCH ANIMAL MANAGEMENT BRANCH
 Director: Rachael Labitt

OFFICE OF EDUCATION
 Director: Megan Bohn

CLINICAL TRAINING PROGRAMS
 Director, Reproductive Endocrinology & Infertility Fellowship Program: Micah Hill
 Director, Pediatric & Adolescent Gynecology Fellowship Program: Veronica Gomez-Lobo

CORE FACILITIES
 Bioinformatics & Scientific Programming Core: Ryan Dale
 Computer Support Services Core: Ryan Dale
 Microscopy & Imaging Core: Vincent Schram
 Molecular Genomics Core: Vivek Mahadevan

DIVISION OF DEVELOPMENTAL BIOLOGY
 ASD: Todd Macfarlan
 Deputy ASD: Pedro Rocha
 Harold Burgess
 Ajay Chitnis
 David Clark
 Robert Crouch
 Jeffrey Farrell
 Paul Love
 Todd Macfarlan
 Richard Maraia
 Keiko Ozato
 Karl Pfeifer
 Pedro Rocha
 Katherine Rogers
 Leah Rosin
 Brant Weinstein

DIVISION OF TRANSLATIONAL MEDICINE
 ASD: Jack Yanovski
 Deputy ASD: Veronica Gomez-Lobo
 Jeffrey Baron
 Janice Chou
 An Dang Do
 Rena D'Souza
 Veronica Gomez-Lobo
 Catherine Gordon
 Sergey Leikin
 Anil Mukherjee
 Karel Pacak
 Forbes Porter
 Roberto Romero
 Sarah Sheppard
 Stanko Stojilkovic
 Christina Tatsi
 Jack Yanovski

DIVISION OF MOLECULAR AND CELLULAR BIOLOGY
 ASD: Gisela Storz
 Deputy ASD: Henry Levin
 Mary Dasso
 Thomas Dever
 Alan Hinnebusch
 Henry Levin
 Y. Peng Loh
 Jon Lorsch
 Matthias Machner
 Yun-Bo Shi
 Gisela Storz

DIVISION OF NEUROSCIENCE AND CELLULAR AND STRUCTURAL BIOLOGY
 ASD: Mary Lilly
 Deputy ASD: Timothy Petros
 Tamás Balla
 Anirban Banerjee
 Juan Banifacino
 Andres Buonanno
 Dax Hoffman
 Claire Le Pichon
 Mary Lilly
 Chris McBain
 Timothy Petros
 Tracey Rouault
 Mihaela Serpe
 Mark Stopfer

DIVISION OF BASIC AND TRANSLATIONAL BIOPHYSICS
 ASD: Sergey Bezrukov
 Deputy ASD: Leonid Chernomordik
 Sergey Bezrukov
 Leonid Chernomordik
 Doreen Matthies
 Alexander Sodt
 Joshua Zimmerberg

DIVISION OF TRANSLATIONAL IMAGING AND GENOMIC INTEGRITY
 ASD: Amir Gandjbakhche
 Deputy ASD: Peter J. Basser
 Peter J. Basser
 Amir Gandjbakhche
 Bruce Tromberg
 Roger Woodgate

DIVISION OF POPULATION HEALTH RESEARCH
 Director: Una Grewal
 Deputy Director: Yvette Pittman
 Jennifer Weck
 Biostatistics and Bioinformatics Branch
 Neil Perkins, Acting Branch Chief
 Zhen Chen
 Aiyi Liu
 Rajeshwari Sundaram
 Epidemiology Branch
 Edwina Yeung, Acting Branch Chief
 Katherine Grantz
 Fasil Tekola-Ayele
 Social and Behavioral Sciences Branch
 Stephen Gilman, Branch Chief
 Bobby Cheon
 Tonja Nansel
 Contraceptive Development Program
 Diana Blithe, Chief



Affinity Group Membership

Aquatic Models of Human Development

Chitnis, Ajay [Head]

Burgess, Harry

Rogers, Katherine

Weinstein, Brant

Bone & Matrix Biology in Development & Disease

Leikin, Sergey [Head]

D'Souza, Rena (NIDCR)

Cell & Structural Biology

Machner, Matthias [Head]

Banerjee, Anirban

Buonanno, Andres

Bonifacino, Juan

Lilly, Mary

Storz, Gigi

Cell Regulation & Development

Dever, Tom [Head]

Dasso, Mary

Farrell, Jeff

Hinnebusch, Alan

Levin, Henry

Lorsch, Jon (NIGMS)

Serpe, Ela

Shi, Yun-Bo

Developmental Endocrinology, Metabolism, Genetics, & Endocrine Oncology

Baron, Jeff [Head]

Stojilkovic, Stanko [Deputy Head]

Chou, Janice

Dang Do, An (ACI)

Merke, Deborah (CC)

Mukherjee, Anil

Pacak, Karel

Porter, Denny

Sheppard, Sarah

Tatsi, Christina (ACI)

Yanovski, Jack

Genetics & Epigenetics of Development

Rocha, Pedro [Head]

Love, Paul

Macfarlan, Todd

Ozato, Keiko

Pfeifer, Karl

Rosin, Leah

Genomics & Basic Mechanisms of Growth & Development

Maraia, Richard [Head]

Clark, David

Crouch, Bob

Woodgate, Roger

Molecular Medicine

Le Pichon, Claire [Head]

Rouault, Tracey

Maternal-Fetal Medicine 7 Translational Imaging

Basser, Peter [Head]

Gandjbakhche, Amir

Romero, Roberto

Tromberg, Bruce (NIBIB)

Neurosciences

Petros, Tim [Head]

Balla, Tamas

Hoffman, Dax

Loh, Y Peng

McBain, Chris

Stopfer, Mark

Physical Biology & Medicine

Sodt, Alex [Head]

Bezrukov, Sergey

Chernomordik, Leonid

Matthies, Doreen

Sackett, Dan (SS)

Zimmerberg, Josh

Reproductive Endocrinology & Women's Health

Gomez-Lobo, Veronica [Head]

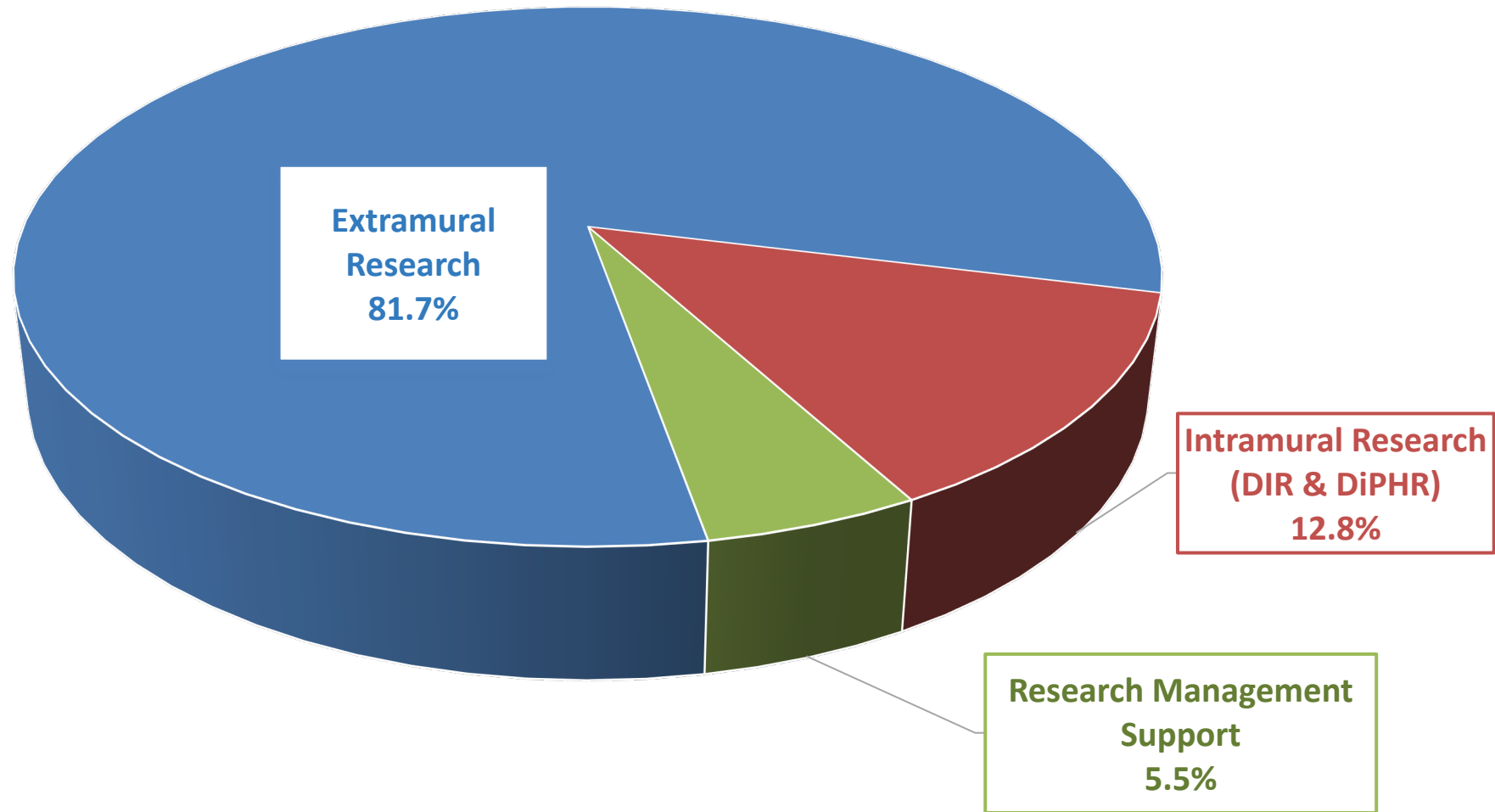
Gordon, Catherine

Hill, Micah



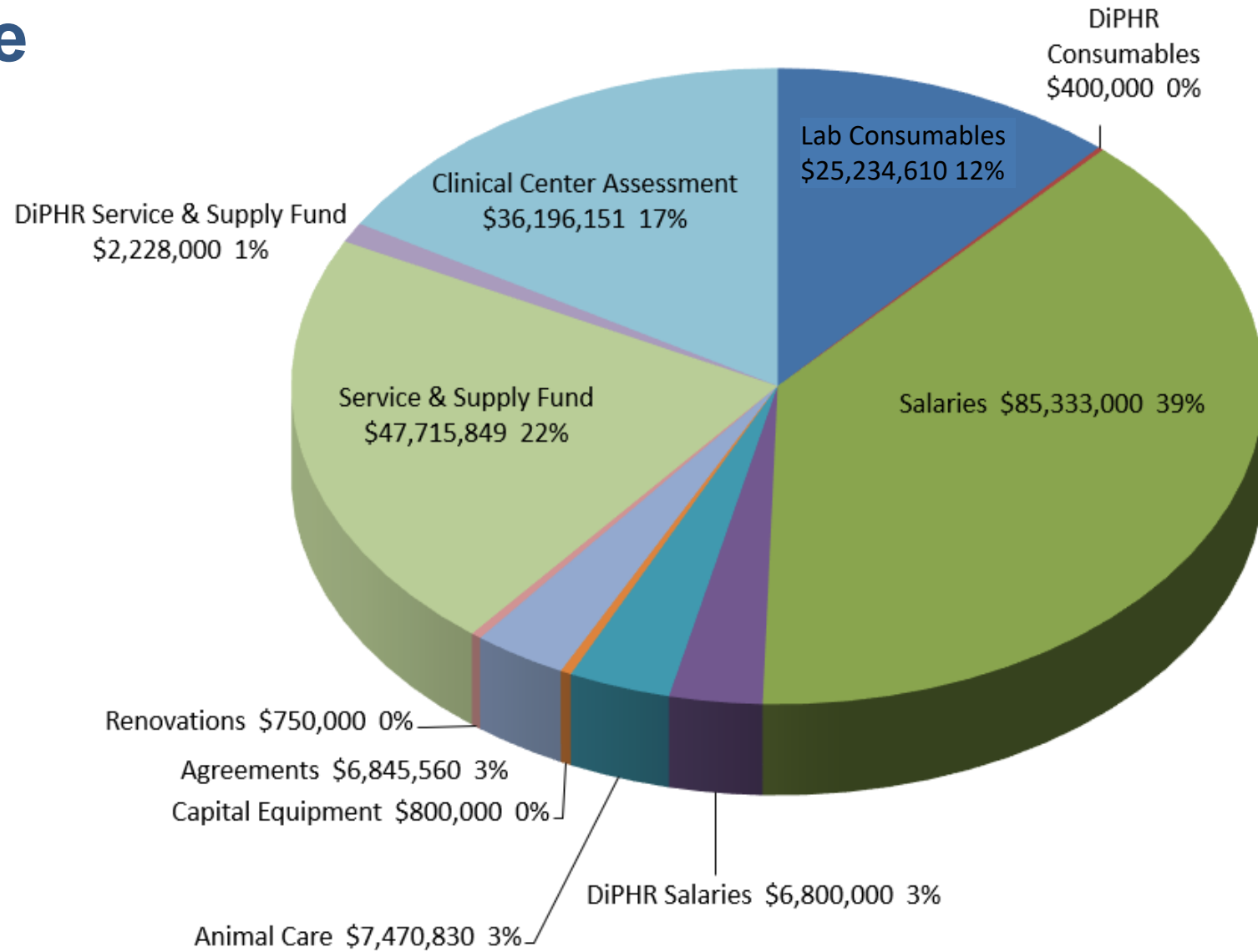
Budget & Personnel

NICHD Intramural Program FY2024 Allocations



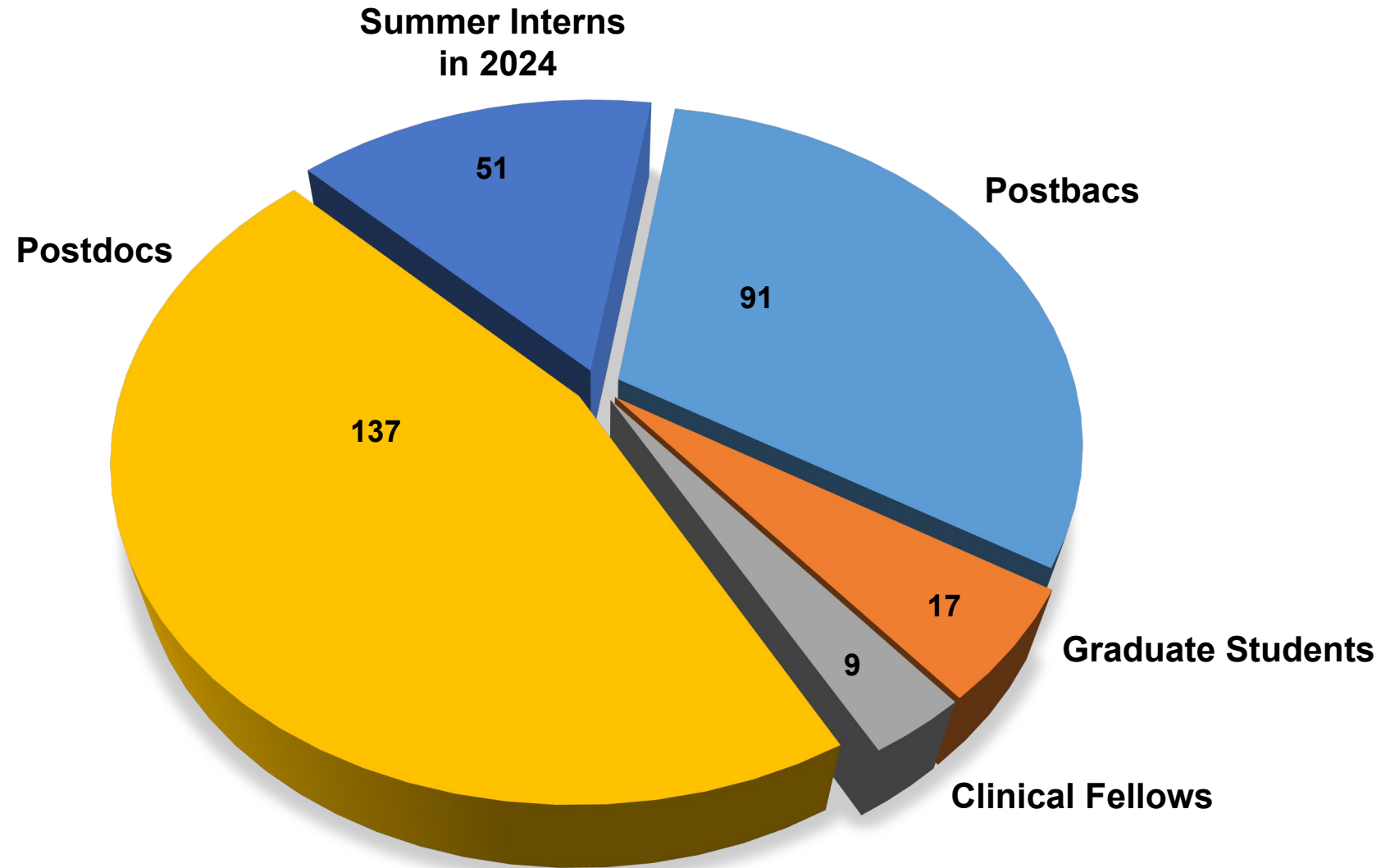
NICHD DIR Budget FY24 Estimate

Total \$219,774,000



NICHD Intramural Trainee Numbers

As of August 2024, 254 currently



Personnel Updates: Recruitments

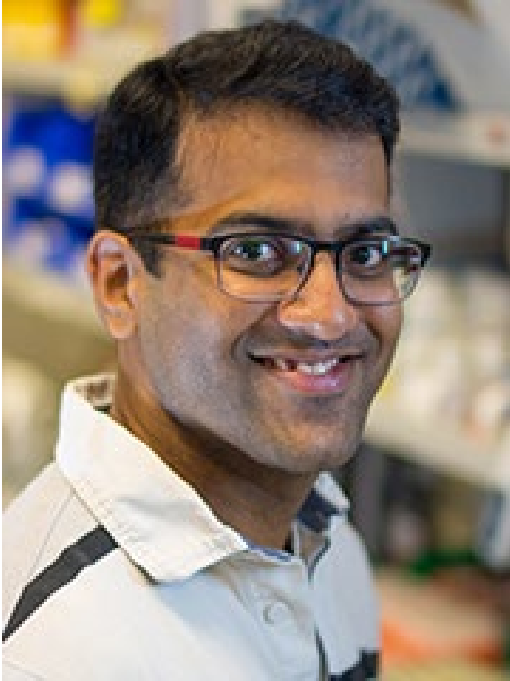


Bizu Gelaye, PhD, MPH
Senior Investigator and Chief,
Epidemiology Branch, DiPHR

Effective September 8, 2024



Personnel Updates: Recruitments



Vivek Mahadevan, PhD
Functional Director, Molecular
Genomic Core

Effective April 7, 2024



Personnel Updates: Retirements



Leonid Margolis, PhD - September 30, 2023
Senior Investigator, Section on Intercellular Interactions



Melvin DePamphilis, PhD – January 7, 2024
Senior Investigator, Section on Eukaryotic DNA Regulation



Alan DeCherney, MD – July 31, 2024
Senior Investigator & Deputy Director of the Reproductive Endocrinology and Infertility (REI) Fellowship Program

Personnel Updates: Retirements

Andres Buonanno, PhD – September 30th
*Senior Investigator, Section on Molecular
Neurobiology*

Karel Pacak, MD, PhD, DSc – mid-September
*Senior Investigator, Section on Medical
Neuroendocrinology*



We are recruiting!

- Tenure-Track Investigator in Neural Development
- Tenure-Track Investigator, Social and Behavioral Sciences Branch
- Bioinformatics Training Program Manager
- Pediatric Endocrinologist Staff Clinician



The full advertisements are available at:
<https://www.nichd.nih.gov/about/jobs>



The NIH-Wide Stadtman Investigator Search



- Annual search open to all doctoral-level, biomedical and behavioral researchers interested in NIH Intramural tenure-track positions
- Searching for researchers studying important problems in innovative ways
- Accepting applications each August and September
- For details, see <https://irp.nih.gov>
(under the Careers/Trans-NIH Scientific Recruitments tab)



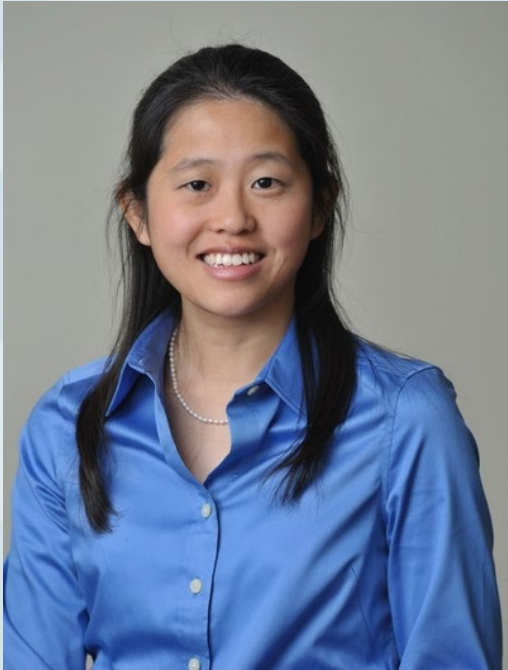


LASKER CLINICAL RESEARCH SCHOLARS

A Unique Bridge for Early Stage Clinical Investigators



NICHD DIR Honors & Awards



Edwina Yeung, PhD

President, The Society for Pediatric and
Perinatal Epidemiologic Research (SPER)
2024-2025

NICHD DIR Honors & Awards



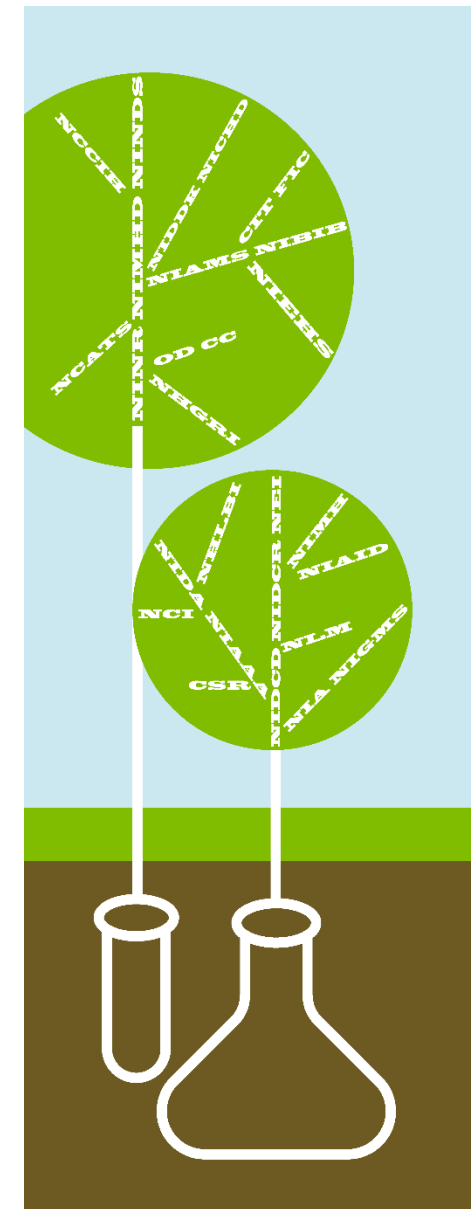
Gisela Storz, PhD
Elected AAAS Fellow



Jack Yanovski, MD, PhD
Featured on CNN *Chasing Life* Podcast, hosted
by Sanjay Gupta - Pediatric Obesity

NIH Green Labs Program (GLP)

- Aims to increase the awareness and participation of laboratory personnel in sustainable laboratory practices, with the goal of protecting the environment and human health. Practices include:
 - conserving energy and water
 - reducing waste and recycling
 - collaborating with other NIH researchers to develop and share innovations
- The DIR had 27 labs participate in 2023, up from 6 in 2022.
- The GLP was nominated for the 2024 International Institute for Sustainable Laboratories (I2SL) Phil Wirdzek Leadership Award in recognition of the efforts made across many NIH ICs whose innovative strategies were exemplary in overcoming challenges and achieving a record-breaking increase in participation in the 2023 NIH Green Labs Program.

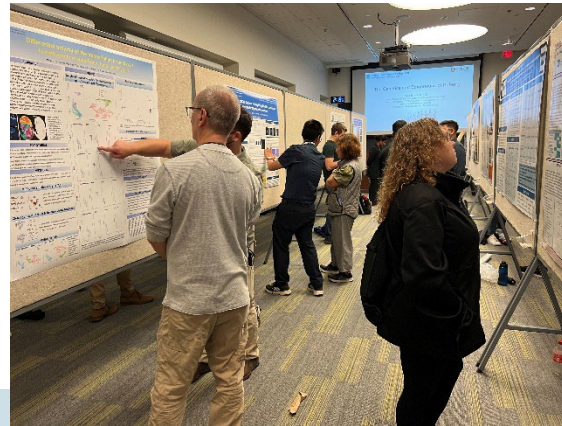


NICHD Intramural Scientific Retreat

September 26, 2023



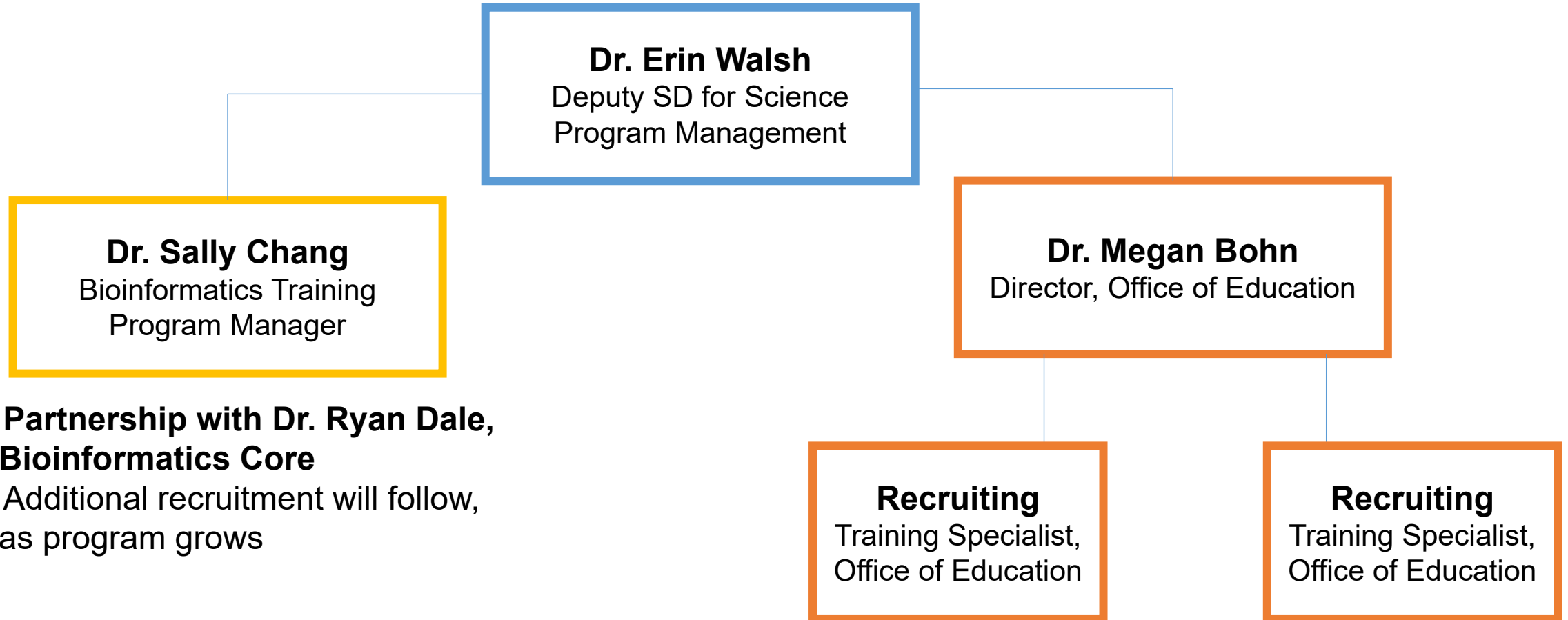
Read about it in the NICHD Connection [here](#)





Education Updates

The DIR is Expanding Training Resources



- **Partnership with Dr. Ryan Dale, Bioinformatics Core**
- Additional recruitment will follow, as program grows



Office of Education Team is Growing

Megan Bohn, PhD

Director, Office of Education

Previously:

- NIAID Program Specialist (Postdocs)
- Johns Hopkins: Assistant Director, Office of Postdoctoral Affairs
- NICHD Postdoc Alumnus (Pfeifer Lab)



Office of Education Team is Growing

Sally Chang, PhD

Bioinformatics Training Program Manager

Previously:

- Education Team Lead, National Center for Biotechnology Information (NCBI)
- Bioinformatics Course Developer & Instructor, Foundation for Advanced Education in the Sciences (FAES)
- Postdoctoral Fellow, NHGRI
 - explored cnidarian genome and transcriptome sequences as useful animal models to understand key biological processes such as tissue regeneration.



NEW Bioinformatics Training Core



- Partnership between Ryan Dale/Bioinformatics Core and Erin Walsh/OE
 - Oversee new **Bioinformatics Training Program Manager** (hiring in progress)
- Regularly assess DIR bioinformatics and data science training needs
- Design short courses and other training content based
- Manage feedback and develop evaluative systems for informing future content
- Grow and maintain a community of learners, providing support throughout their NICHD career and beyond



Office of Education: Ongoing Key Activities

Public Speaking & Teaching: job talks, individual coaching, elevator speeches, syllabus & curriculum development with Univ. of Maryland (college teaching workshop summer series); graduate student talks (GST) during the PI monthly meetings

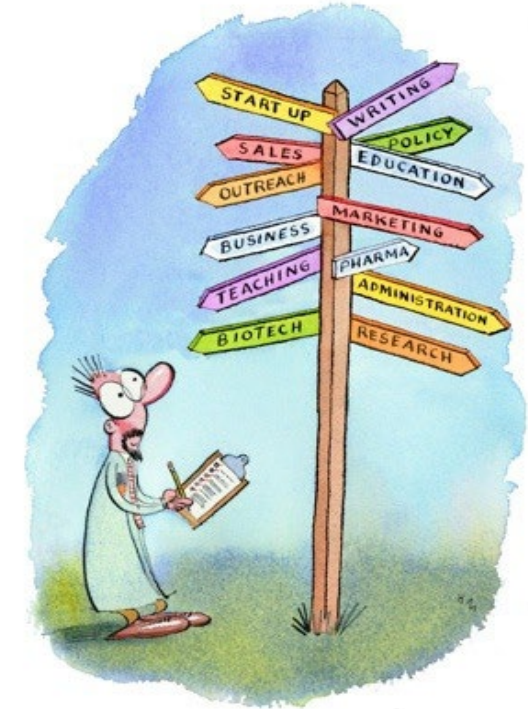
Grantsmanship & Publishing: annual grants workshop (full day); guidance with NIH submissions (K99, K22, PRAT), mock study section workshop, three-week grant writing course

Careers: job interview preparation, networking, editing of job application materials, individualized guidance of IDPs/Annual Progress Reviews, exploration sessions for various career paths, preparing for industry success



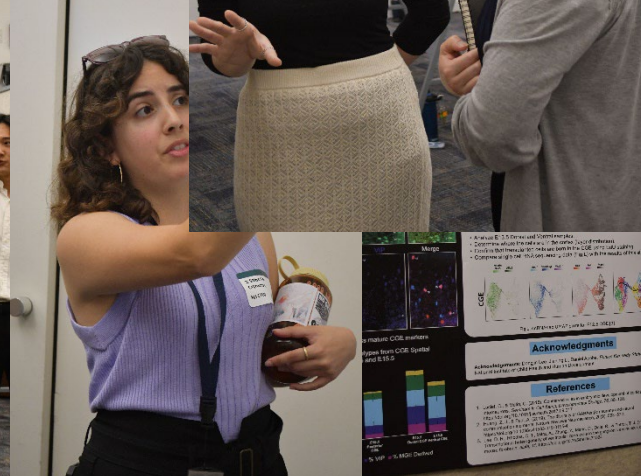
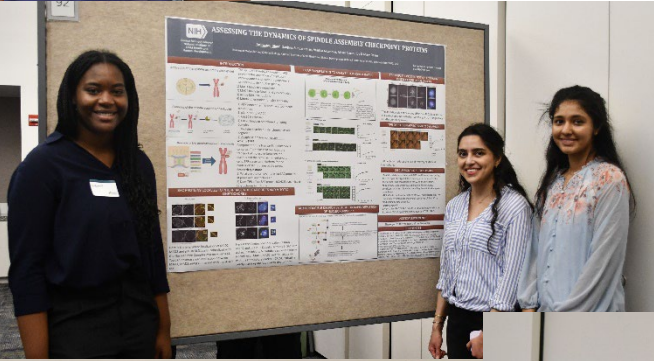
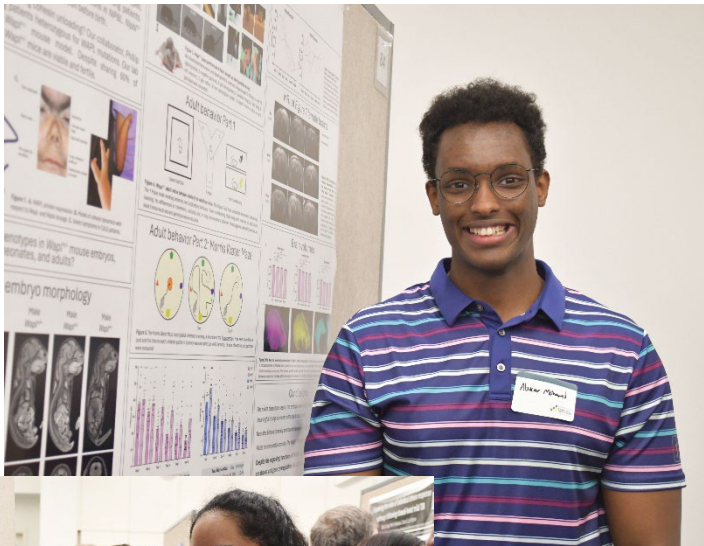
Office of Education: Ongoing Key Activities

- Postbac Seminar Series: Career Exploration, Professional Development, & Graduate/Medical School Application Prep
- K99 Grant Writing Course: Spring 2024
- Ad hoc Industry Job Consulting Sessions
- Industry Careers Webinar Series
- Exit survey implemented summer 2022 and actively collecting data
- IDP and annual progress report system for NICHD (postbac and postdoc)
- Science Writing Skills Workshop (NEW!): February
- One-Day Grant Writing Workshop: Summer 2024
- Academic Job Application & Interview Process: Summer 2024
- 2024 Annual Fellows' Retreat: October 22
- Quarterly Group Postdoc Orientations: Started June 2024
- K99 Preparation Series (Cohort of October Applicants): Underway, collaborating with DER



Postbac Poster Day May 2, 2024

69 Posters
(65% of the DIR
Postbac Community!)



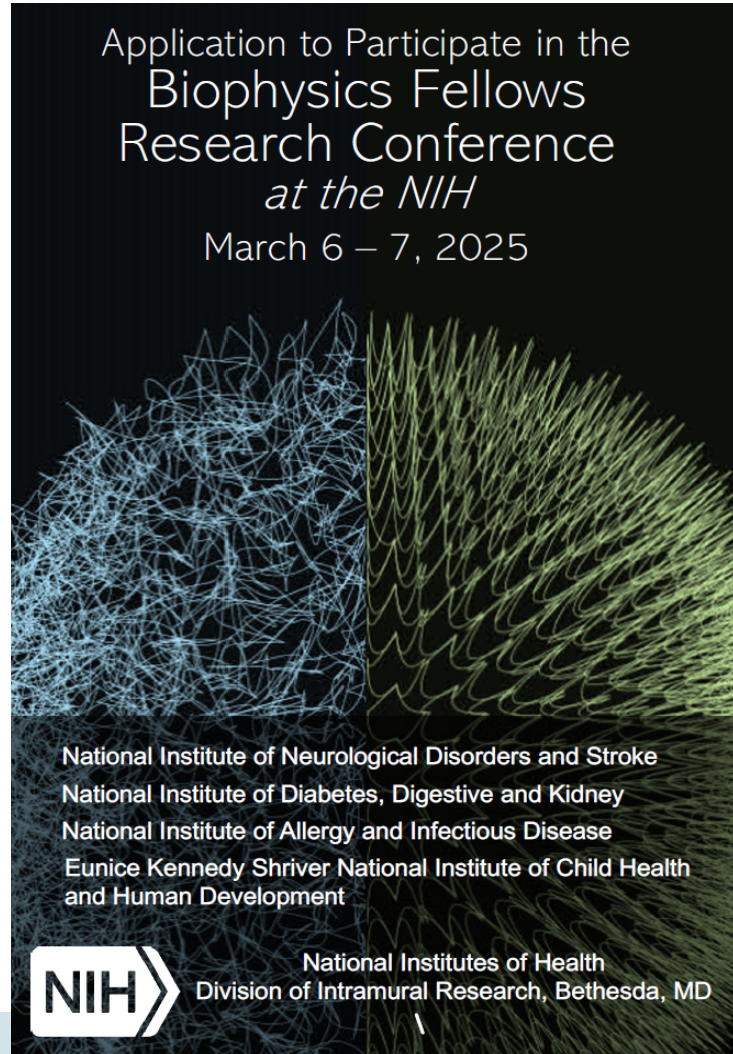
Trainee Recruitment Initiatives for FY24 & FY25

- Hiring an Outreach/Recruitment Training Specialist in the OE
- NICHD Office of Health Equity (OHE) Collaboration
 - Monthly OE-OHE Meetings
 - Outreach and recruitment events: at NIH, national conferences (SACNAS, ABRCMS), local science fairs and academic institutions
 - Partnerships with outside academic institutions (modeling the Howard University partnership)
- Enhance Office of Education Web Content
 - Showcase resources, facilities, trainee programming
 - Feature social media “Reels” made by the fellows and investigators




Trainee Recruitment Initiatives: Biophysics Fellows

Application to Participate in the
Biophysics Fellows
Research Conference
at the NIH
March 6 – 7, 2025



National Institute of Neurological Disorders and Stroke
National Institute of Diabetes, Digestive and Kidney
National Institute of Allergy and Infectious Disease
Eunice Kennedy Shriver National Institute of Child Health
and Human Development

 National Institutes of Health
Division of Intramural Research, Bethesda, MD

- Travel award for 25 selected applicants
 - PhD students and early postdocs in biophysics (national and international)
 - Opportunities to present work and to identify NIH mentors
- NIH investigators, leadership and trainees will present and connect with invitees
- Application period: April 1 – July 15
- Event is March 6 & 7, 2025



NICHD Intramural Diversity Initiatives

Supports the DIR commitment to recruit, train, support and sustain a diverse group of talented young scientists including those from groups traditionally underrepresented in science.

➤ **NICHD Developing Talent Scholars Program (Postbacs):**

- **Three new scholars for FY24: Pfeifer, Sheppard, Dasso Labs**
- Alumni group of >30 - many of them are currently in professional school, MD and PhD programs

➤ **NICHD Summer Internship Program**

- **25 centrally funded positions annually**
- **NEW: 5 centrally funded for projects in health equity research**

➤ **Fellows Recruitment Incentive Award (Est. 2018 for Postdoc Fellows):**

- **Chelsey Fontenot (Storz Lab) for FY24**
- Luciana Daniela Garlisi Torales (Sheppard, FY23)
- Diana Elizondo (Yanovski, FY22)



Summer Research in Health Equity at NICHD

- New summer student program focused on promoting health equity and health disparities research
- Collaborative effort between the Office of Health Equity and Office of Education
- Investigators were encouraged to nominate students
 - with limited/no previous research experience
 - from groups traditionally underrepresented in the biomedical sciences
 - from disadvantaged backgrounds
 - individuals with disabilities
- In addition to their research, students also participated in a seminar series



Pictured (L to R): Elizabeth Sherwin, Aleksandra Potapova, Alexis Williams, Trisha Tomcy
Not pictured: Siona Wadhawan



Summer Research in Health Equity at NICHD: Mentors and Projects

Students (5):

- **Schools:** American University, Howard University, University of Maryland-Baltimore County, Tufts University
- **Majors:** Biology, Molecular Biology, Public Health, International Studies

Mentors:

- **Brant Weinstein (Aurora Kraus):** Understanding Inflammatory responses to damage to the brain and meningeal layers that surround and protect the brain
- **Henry Levin (2) (Hyo Won & Abishek Anand):** Studying the Impact of transposable element insertions of the expression linked to neurodegenerative disease
- **Sarah Sheppard:** Lymphedema Life Impact Score (A quality of life score for individuals suffering from lymphedema – Developed in English, has not been validated in Spanish.
- **Una Grewal:** Nutrition and Climate Change in Relation to Maternal and Child Health



Summer Research in Health Equity at NICHD: Summer Seminar Series



June 18:

**Topic: Principles
in Health Equity –
Social
Determinants**

**Speaker: Dr.
Amanda Price**



June 26:

**Topic: Effects of
perceived
socioeconomic
disadvantage on
appetite and
eating behavior**

**Speaker: Dr.
Bobby Cheon**



July 2:

**Topic: Engaging
People with Lived
Experiences and
the Research
Community**

**Speakers: Dr.
Parisa Parsafar,
Dr. Jessie
Bridgewater, Ms.
Wendy Wang**



July 10:

**Topic:
Cardiometabolic
diseases/disparities
in diverse
ancestral
populations**

**Speaker: Dr. Fasil
Tekola-Ayele**



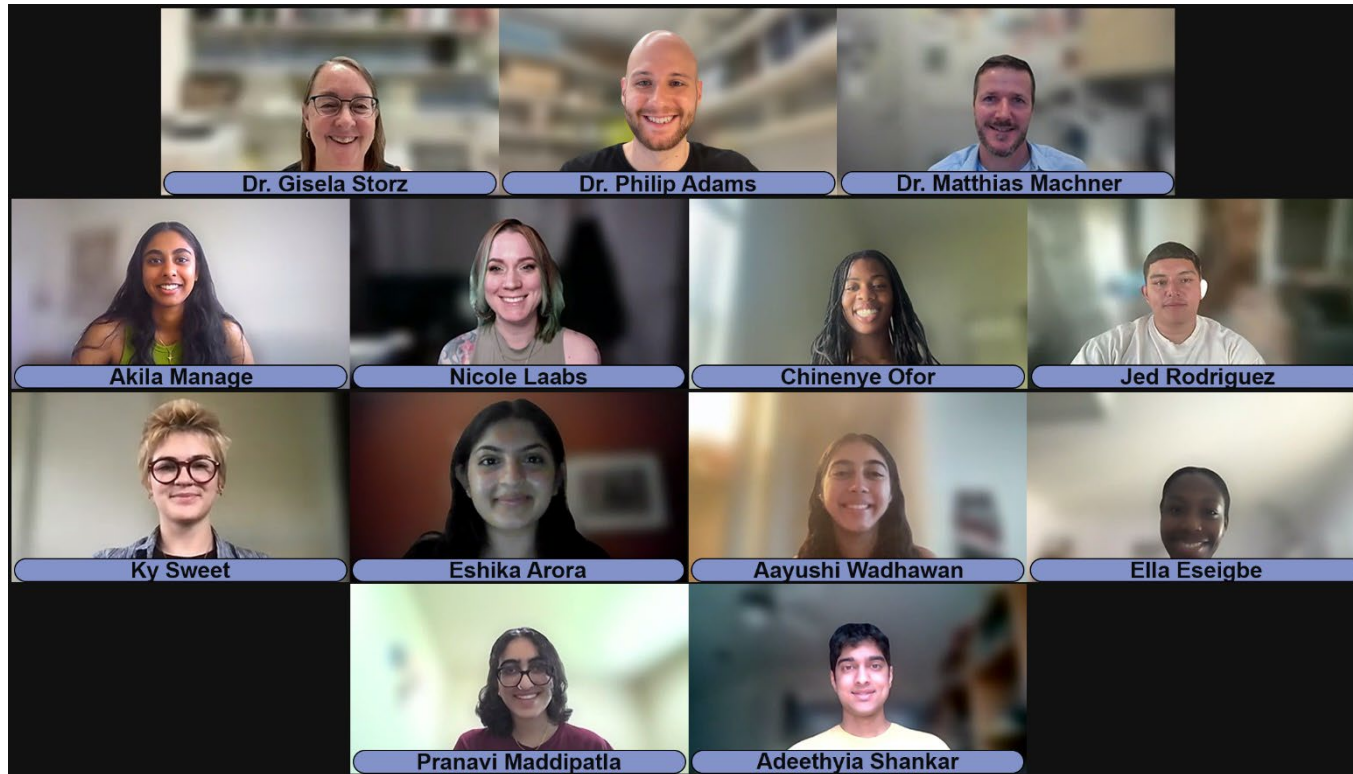
July 24:

Topic: Obesity

**Speaker: Dr.
Diana Elizondo**



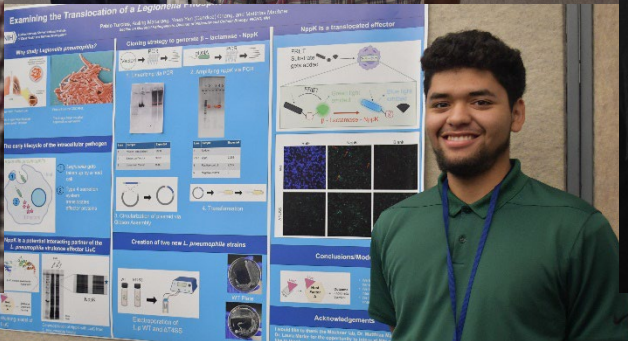
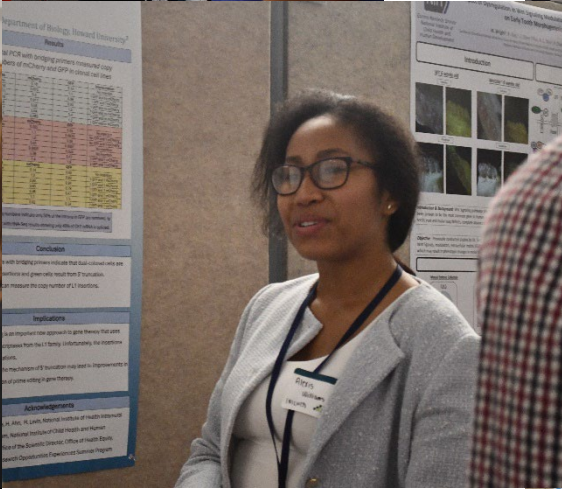
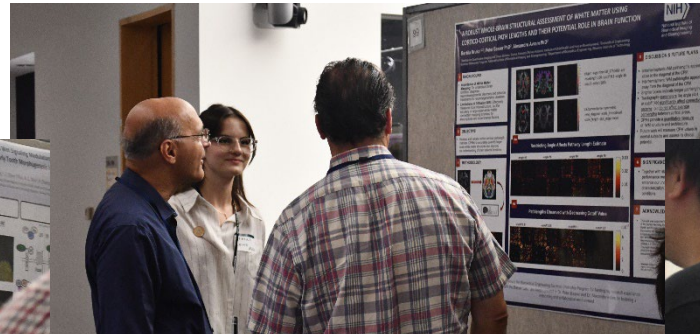
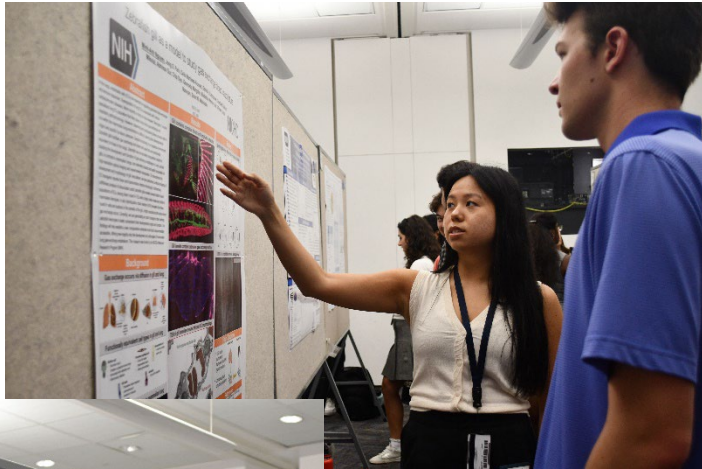
Virtual Student Summer Opportunities to Advance Research (V-SOAR)



- For undergraduate students interested in exploring elements of the basic and bioinformatics-based research, but who cannot avail themselves of an in-person summer internship.
- On-line curriculum focused on the development of research, professional, and well-being skills.



Summer Poster Day August 1-2, 2024





Competitive Funding Opportunities

NICHD Intramural Research Fellowships: 2024-2025

8th Application Cycle Started in June

- Grant writing opportunity for NICHD postdoctoral and clinical fellows in their second or third training year
- Award of \$25K for 1 year, towards equipment, reagents, travel/training, stipend
- In 2023: 13 applications reviewed by committee of NICHD investigators, postdoctoral grantees and tenure-track alumni
- Review, Scoring, Study Section Procedures mirrors NIH extramural scoring system for F-series
- Scoring Criteria & Application Sections:
 - Fellowship Applicant (Biosketch and Leadership Diversity Statement)
 - Sponsors and Collaborators (Sponsor Statement)
 - Research Training Plan (Specific Aims and Significance & Approach)
 - Training Potential (Goals for Fellowship Training)
 - Institutional Environment and Commitment to Training (Selection of Sponsor and Institution and Sponsor Statement)



NICHD Early Career Awards Continue

- **Internal funding opportunity aimed at promoting the research careers of early-stage intramural researchers in the basic, clinical, and translational sciences.**
- **FY24 is the 4th cycle. Launched in FY21 as an NICHD OD, OSD & OE Initiative**
- Applications reviewed by intramural investigators, staff scientists and NICHD alumni (tenure-track)
- Modeled after Tufts University School of Medicine's Zucker Grant Program (Blanchard et al., 2019)
 - Between 2000 and 2016, \$377,050 was awarded to 142 recipients (early-stage, female investigators)
 - Funds were primarily used for development of pilot, preliminary research projects
 - 2016 Survey: awards promoted extramural funding success (60% success rate), mentorship, and boosted confidence and morale at a critical time in their careers

JOURNAL OF WOMEN'S HEALTH
Volume 28, Number 12, 2019
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DOI: 10.1089/jwh.2018.7642

The Impact of an Institutional Grant Program
on the Economic, Social, and Cultural Capital
of Women Researchers

Rebecca D. Blanchard, PhD,¹ Reva Kleppel, MSW, MPH,¹ and Diana W. Bianchi, MD²



NICHD Early Career Awards

- **Open to NICHD postdoctoral, research, and clinical fellows**
- Individual awards of up to \$25,000 for outstanding, original research proposals, to support one-year research projects.
- Up to \$10,000 awarded individually to applications for proposed scientific meeting participation, and/or training that supports scientific and/or professional development.
- FY24:
 - 57 applications received for clinical, basic science and epidemiology
 - 19 awards, totaling \$425,622



NEW! NICHD Staff Scientist & Staff Clinical Career Development Awards

- **New Career Award opportunity, launched in FY24**
- Individual awards of up to \$20,000 for outstanding, original research proposals, to support one-year research projects for staff scientists/clinicians
- Up to \$10,000 awarded individually to applications for proposed scientific meeting participation, and/or training that supports scientific and/or professional development.
- FY24:
 - 23 applications received
 - 11 awards, totaling \$156,125





QUESTIONS?