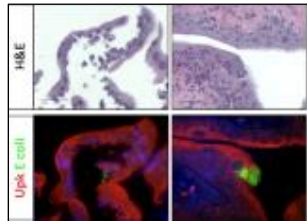




Collaborating for the Advancement of Interdisciplinary Research in Benign Urology

SUMMER STUDENT RESEARCH JAMBOREE



Friday, August 19, 2022

1:00 to 3:00 PM Eastern

(12-2 PM Central | 10-12 PM Pacific)

~ Zoom link [HERE](#)

Students involved in the 2022 Summer Student Research Jamboree participated in research projects at current and prior CAIRIBU O'Brien Centers – the University of Wisconsin-Madison, Columbia University, Stanford University, and the University of Pittsburgh

CAIRIBU O'Brien Center Pls

Jonathan Barasch, MD, PhD¹

Ali Gharavi, MD¹

Cathy Mendelsohn, PhD¹

Anne-Catrin Uhlemann, MD, PhD¹

William Ricke, PhD²

James Brooks, MD³

CAIRIBU Leadership

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¹Columbia University

²University of Wisconsin-Madison

³Stanford University

The **George M. O'Brien Centers Cooperative Research (U54) Program** is funded by the National Institute of Diabetes, Digestive and Kidney Diseases, one of the institutes of the National Institutes of Health.

These Urology O'Brien Centers are part of a community of investigators and trainees engaged in studying non-malignant genitourinary diseases and conditions. This community is known as **CAIRIBU – Collaborating for the Advancement of Interdisciplinary Research in Benign Urology**. Others involved in the CAIRIBU research community include P20 Exploratory Centers for Interdisciplinary Research in Benign Urology and K12 Scholar Career Development Programs.

Each summer, investigators from CAIRIBU O'Brien Centers recruit and host high school students, college graduate and undergraduate students, and medical school students to participate in research projects.

The program for the 2022 Summer Student Research Jamboree follows



Stanford
MEDICINE

O'Brien Urology Research Center
Department of Urology

George M. O'Brien
Urology Research Center
UNIVERSITY OF WISCONSIN-MADISON



COLUMBIA

Columbia University O'Brien Center for Benign Urology



University of Pittsburgh

O'Brien Urology Research Center



UMASS
BOSTON

UTSW

NIDDK
NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
AND KIDNEY DISEASES

FRIDAY – AUGUST 19, 2022 | 1:00-3:00 PM EASTERN TIME

Welcome

Jonathan Pollack, MD, PhD, Professor of Pathology; Stanford University

What do we know about non-malignant urological disease?

Jill Macoska, PhD, Alton J. Brann Endowed Distinguished Professor in Science and Mathematics and Cancer Biology, Director of the Center for Personalized Cancer Therapy, Professor of Biological Sciences University of Massachusetts Boston



Group 1 student presentations (see presentation titles and mentor listing on following pages)

- | | |
|---|--|
| (1) Abhijay Nadkarni, University of Pittsburgh (DeFranco/Tyagi) | (2) Ryan Rezania, UW-Madison (Ricke) |
| (3) Kegan Skalitzy, University of Pittsburgh (DeFranco/Pascal) | (4) Lydia Agnew, UW-Madison (Ricke) |
| (5) Aliyah Davis, Stanford University (Sheth) | (6) Josephine Chou, Stanford University (Pollack) |
| (7) Mahek Jilla, University of Massachusetts Boston (Macoska) | (8) Sneha Chandrashekar, UW-Madison (Vezina) |
| (9) Lauren Hackner, University of Pittsburgh (DeFranco/Liu) | (10) Munira Adan, Stanford University (Enemchukwu) |

Group 2 student presentations (see presentation titles and mentor listing on following pages)

- | | |
|---|--|
| (1) Ertan Li, University of Pittsburgh (DeFranco/Tyagi) | (2) Sarah Wornow, Stanford University (Brooks) |
| (3) Caleb Sokovich UW-Madison (Grimes) | (4) Jacob Gonzalez, Columbia Univ (Mendelsohn) |
| (5) Jack Gwertzman, UW-Madison (Roldán-Alzate) | (6) Grace Holton, Stanford University (Liao) |
| (7) Akihisa Sakai, UW-Madison (Grimes) | (8) Lauryn Hahn, UW-Madison (Crawford) |

Presenters in this group are available in person. Each will each host a Zoom breakout room following the presentations. Jamboree attendees are free to go in and out of breakout rooms for one-on-one discussion, Q&A, and feedback.

Concluding remarks

Laura Pascal, PhD, Research Assistant Professor, Department of Pharmacology & Chemical Biology, University of Pittsburgh

CAIRIBU PARTNERS AND COLLABORATORS



NIDDK PROGRAM OFFICERS: Julie Barthold, MD; Deepak Nihalani, PhD; and Chris Mullins, PhD

UROLOGY CENTERS PROGRAM INTERACTIONS CORE

Kristina Penniston, PhD; PI, NIH/NIDDK U24 UW-Madison Urology Interactions Core (U24-DK-127726);
Betsy Rolland, PhD, MLIS; Co-Investigator; Jennifer Allmaras, MPH, Research Program Manager; Mariana Coughlin, MS, RDN, Administrative Coordinator

CONSORTIUM MONITORING BOARD (for CAIRIBU O'Brien Centers & CAIRIBU Interactions Core)

Mark Nelson, PhD, University of Vermont (chair); Shuk-Mei Ho, PhD, University of Arkansas; Dean Assimos, MD, University of Alabama at Birmingham;
Cecelia Lo, PhD, University of Pittsburgh; Craig Peters, MD, University of Texas Southwestern

CAIRIBU CENTERS AND PROGRAMS

George M. O'Brien (U54) Urology Cooperative Research Centers Program

Stanford University (2021-26); Columbia University (2020-25); University of Wisconsin-Madison (2019-24); University of Pittsburgh (2016-21)

P20 Exploratory Centers for Interdisciplinary Research in Benign Urology

2020-2022: Medical College of Wisconsin, Children's Hospital of Philadelphia-University of Pennsylvania, and University of Alabama at Birmingham

2021-2023: Beaumont Hospital-Oakland University William Beaumont School of Medicine/Michigan State University

2019-2021: NorthShore University HealthSystem/Purdue University, Duke University, University of Tennessee, Vanderbilt University, and Albert Einstein College of Medicine.

K12 Career Development Programs

- Urological Epidemiology (KUroEpi) Institutional Research Career Development Programs: University of Michigan; and University of California San Francisco-Kaiser Permanente

- Multidisciplinary Urologic Research (KURe) Career Development Programs: Duke University; and University of Wisconsin-Madison

2022 O'BRIEN CENTER SUMMER RESEARCH STUDENTS

	STUDENT	PRESENTATION TITLE
G1.1	Abhijay Nadkarni	Effects of naloxone on feline models of nonobstructive urinary retention
G1.2	Ryan Rezanian	Development of a cellular senescence visualization protocol with in vivo imaging and luminescence for benign prostatic hyperplasia in p16-3MR mice
G1.3	Kegan Skalitzky	Human prostate stromal cell responses to metabolic stress
G1.4	Lydia Agnew	CYP7B1 knock out alters urinary function in mice
G1.5	Aliyah Davis	The prognostic utility of urinary biomarkers in unilateral neonatal hydronephrosis
G1.6	Josephine Chou	Profiling lymphocyte repertoires in benign prostatic hyperplasia
G1.7	Mahek Jilla	Does IL-13 promote cell motility in primary human prostate fibroblasts?
G1.8	Sneha Chandrashekar	Identification of cell types that contribute to fibrotic disease in the prostate
G1.9	Lauren Hackner	Examining the role of NDUFS3 in benign prostatic hyperplasia
G1.10	Munira Adan	Safety of OnabotulinumtoxinA for idiopathic overactive bladder in elderly patients
G2.1	Ertan Li	Characterizing a new mouse model for benign prostatic hyperplasia (BPH)
G2.2	Sarah Wornow	FTO inhibition protects against ferroptosis-Induced kidney injury In vitro and In vivo
G2.3	Caleb Sokovich	Alteration of urethral epithelial markers in patients with lichen sclerosis
G2.4	Jacob Gonzalez	Investigating the impact of diabetes on urothelial homeostasis
G2.5	Jack Gwertzman	Fabrication of anthropomorphic MRI compatible phantoms
G2.6	Grace Holton	Antimicrobial properties of a chitosan ferumoxytol-based hydrogel used for magnetic extraction of kidney stone fragments
G2.7	Akihisa Sakai	Incidence and clinical characteristics associated with prostate cancer diagnosis at HoLEP
G2.8	Laurn Hahn	The dorsal root ganglion as a key connection between bladder afferents and paw afferents

2022 O'BRIEN CENTER SUMMER RESEARCH MENTORS

MENTOR	POSITION	INSTITUTION
James Brooks, MD ¹	Professor and Vice Chair, Department of Urology	Stanford University
LaTasha Crawford, VMD, PhD	Assistant Professor, Department of Pathobiological Sciences	UW-Madison
Don DeFranco, PhD	Professor and Vice Chair for Medical Education, Associate Dean for Medical Student Research, Department of Pharmacology & Chemical Biology	University of Pittsburgh
Ekene Enemchukwu, MD, MPH	Assistant Professor, Departments of Urology and Obstetrics and Gynecology	Stanford University
Matthew Grimes, MD	Assistant Professor, Department of Urology	UW-Madison
Joseph Liao, MD	Professor and Vice Chair for Academic Affairs, Department of Urology	Stanford University
Teresa Liu, PhD	Scientist, Department of Urology	UW-Madison
Jill Macoska, PhD	Alton J. Brann Endowed Distinguished Professor in Science and Mathematics and Cancer Biology, Director of the Center for Personalized Cancer Therapy, Professor of Biological Sciences	University of Massachusetts Boston ²
Cathy Mendelsohn, PhD ¹	Professor, Departments of Urology, Pathology & Cell Biology, and Genetics & Development	Columbia University
Laura Pascal, PhD	Research Assistant Professor, Department of Pharmacology & Chemical Biology	University of Pittsburgh
Jonathan Pollack, MD, PhD	Professor, Department of Pathology	Stanford University
William Ricke, PhD ¹	UWMF Professor of Urologic Research, Department of Urology	UW-Madison
Alejandro Roldán-Alzate, PhD	Assistant Professor, Departments of Mechanical Engineering, Biomedical Engineering, and Radiology	UW-Madison
Kunj Sheth, MD	Assistant Professor, Department of Urology	Stanford University
Pradeep Tyagi, PhD	Associate Professor, Department of Urology	University of Pittsburgh
Chad Vezina, PhD	Professor, Department of Comparative Biosciences, and Director of Graduate Program, Department of Molecular & Environmental Toxicology	UW-Madison

¹ Principal Investigator of a CAIRIBU Urology O'Brien Center

² Project Leader of the University of Wisconsin-Madison O'Brien Center