

College of Medicine 2025 Research Retreat

October 22nd, 2025

The Catalyst Forge Event Center & Living
Room | 3PM-7PM

Research & Development Committee COM Awards

2024-2025

Aditya Bade, PhD

Pharmacology & Experimental Neuroscience

Gilmore Award:
Basic Scientist



Christopher Barrett, MD

Surgery: Acute Care Surgery

Gilmore Award:
Clinical Scientist



Jen Luedders, MD

Internal Medicine: Allergy & Immunology

Kenney Award



Shaheed Merani, MD, PhD, FRCS(C), FACS
Surgery: Transplant Surgery

Lageschulte &
Weese Award



Austin Wheeler, MD

Internal Medicine: Rheumatology

Physician
Scientist Award



Peng Zhong, PhD

Neurological Sciences

White Award



Extramural Awards & Subawards: \$50K+

2024-2025

Michele Renee Aizenberg Ansari, MD

Neurosurgery

University of
Pennsylvania



Jennifer Bailey-Lundberg, PhD

Pathology, Microbiology, and Immunology

U.S. Army

University of
Texas Health
Science Center
at Houston



Sara Bares, MD

Internal Medicine: Infectious Disease

Columbia
University (NY)



Surinder K. Batra, PhD

Biochemistry and Molecular Biology

- University of Pittsburgh
- H. Lee Moffitt Cancer Center
- University of California - San Diego Moores Cancer Center
- University of Pittsburgh Medical Center
- Mount Sinai Health System



Ken W. Bayles, PhD

Pathology, Microbiology, and Immunology

National
Strategic
Research
Institute



David B. Berkheim, MD

Surgery: Cardiothoracic Surgery

Regeneron
Pharmaceuticals,
Inc.



Josue M Avecillas Chasin, MD, PhD

Neurosurgery

Neurosurgery
Research and
Education Fd
(NREF)



Cyrus Desouza, MBBS, FACP, FACE
Internal Med: Diabetes, Endocrinology, and
Metabolism

University of
Kansas Medical
Center
Research
Institute Inc



Nada Fadul, MD

Internal Medicine: Infectious Diseases

AIDS United



Joseph Fernandes, MD

Neurological Sciences

Novartis
Pharmaceuticals
Corporation

Massachusetts
General
Hospital



Howard Fox, MD, PhD

Neurological Sciences

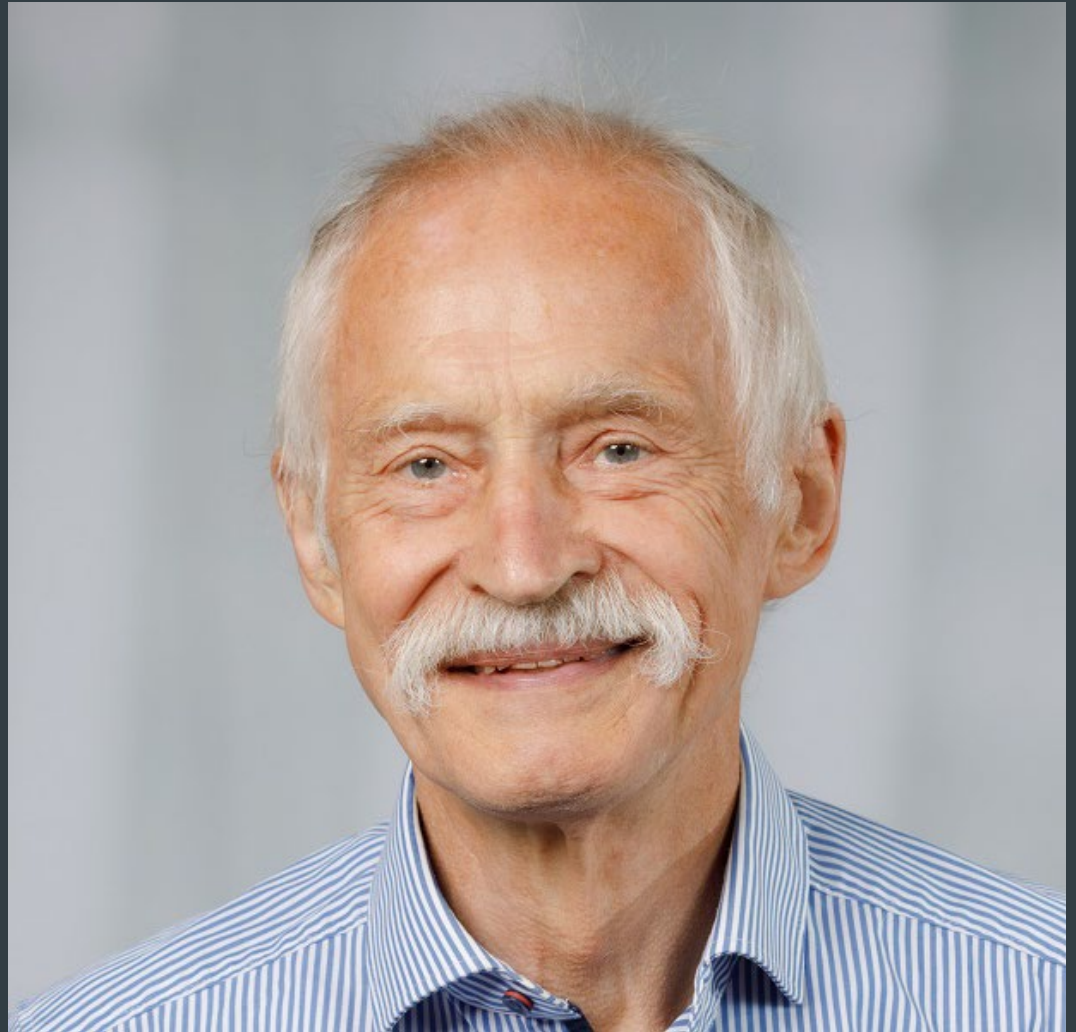
Drexel
University



Bernd Fritzsch, PhD

Neurological Sciences

University of
Arizona



Samuel Gillman, MS, BA

Anesthesiology

American Heart
Association -
National



Babu Guda, PhD

Genetics, Cell Biology, and Anatomy

Wichita State
University



Rebekah L. Gundry, PhD, FAHA

Cellular and Integrative Physiology

Medical College
of Wisconsin



Laura Anne Graeff-Armas, MD, MS, PhD
Internal Med: Diabetes, Endocrine, & Metabolism

Creighton
University



Peter Iwen, MS, PhD, D(ABMM), F(AAM) Pathology, Microbiology, and Immunology

NE DHHS

University of
Nebraska -
Lincoln



Birgit N Ghosh Khandalavala, MD

Family Medicine

Duke University



So-Youn Kim, PhD

Obstetrics and Gynecology

Rutgers
Biomedical &
Health Sciences



Kelsey Anne Klute, MD
Internal Medicine: Oncology & Hematology

TrovaNow
Corporation



Ronald R. Krueger, MD, MSE

Ophthalmology and Visual Sciences

Bausch & Lomb,
Inc.



Eric Langewisch, MD

Internal Medicine: Nephrology

Cedars-Sinai
Medical Center



Matthew Lunning, DO, FACP

Internal Med: Hematology & Oncology

West Virginia
University



Jasmine R Marcelin, MD, FACP, FIDSA

Internal Medicine: Infectious Diseases

Northwestern
University
Feinberg School
of Medicine



Shaheed Merani, MD, PhD, FRCS(C), FACS

Surgery: Transplant Surgery

Alexion
Pharmaceuticals



**David Frederick Mercer, MD, PhD, FRCS(C),
FACS**

Surgery: Transplant Surgery

SterileCare, Inc.



Robyn Moses, PhD

Obstetrics & Gynecology

U.S.
Department of
Agriculture



P. James J Murphy, MD
Internal Med: Pulmonary, Critical Care, and
Sleep Medicine

Cystic Fibrosis
Foundation
Seattle
Children's
Research
Institute



Ly Quan, MD

Surgery: Surgery Oncology

US Army /
USAMRAA



Afshin Salehi, MD, MS

Neurosurgery

GE Healthcare



Joshua Santarpia, PhD

Pathology, Microbiology, and Immunology

National
Strategic
Research
Institute



Rick C Starlin, MD

Internal Medicine: Infectious Diseases

COPD
Foundation



Kelly Stauch, PhD

Neurological Sciences

Alzheimer's
Association

Michael J. Fox
Foundation

Parkinson's
Foundation



Susan Swindells, MBBS

Internal Med: Infectious Diseases

University of
Liverpool



Shaun Louis Thompson, MD

Anesthesiology

Massachusetts
General
Hospital



Andy James Vasey, MD

Internal Medicine: General Internal Med

West Virginia
University



Mike R. Wiley, PhD

Pathology, Microbiology, and Immunology

National
Strategic
Research
Institute



Steven Yeh, MD

Ophthalmology

Priovant
Therapeutics,
Inc



Peng Zhong, PhD

Neurological Sciences

CurePSP, Inc.



Publication Surpassed 1000 Citations

2024-2025

Siddappa Byraredy, PhD

Pharmacology & Experimental Neurosciences

Journal of Biological Chemistry (JBC)

"Curcumin, a Novel p300/CREB-binding Protein-specific Inhibitor of Acetyltransferase, Represses the Acetylation of Histone/Nonhistone Proteins and Histone Acetyltransferase-dependent Chromatin Transcription"



Matthew Longo, MD, FACS

Surgery: Vascular Surgery

Journal of Clinical Investigation

“Matrix metalloproteinases 2 and 9 work in concert to produce aortic aneurysms”



Daniel Murman, MD, MS

Neurological Sciences

Seminars in Hearing

“The Impact of Age
on Cognition”



Patents Awarded

2024-2025

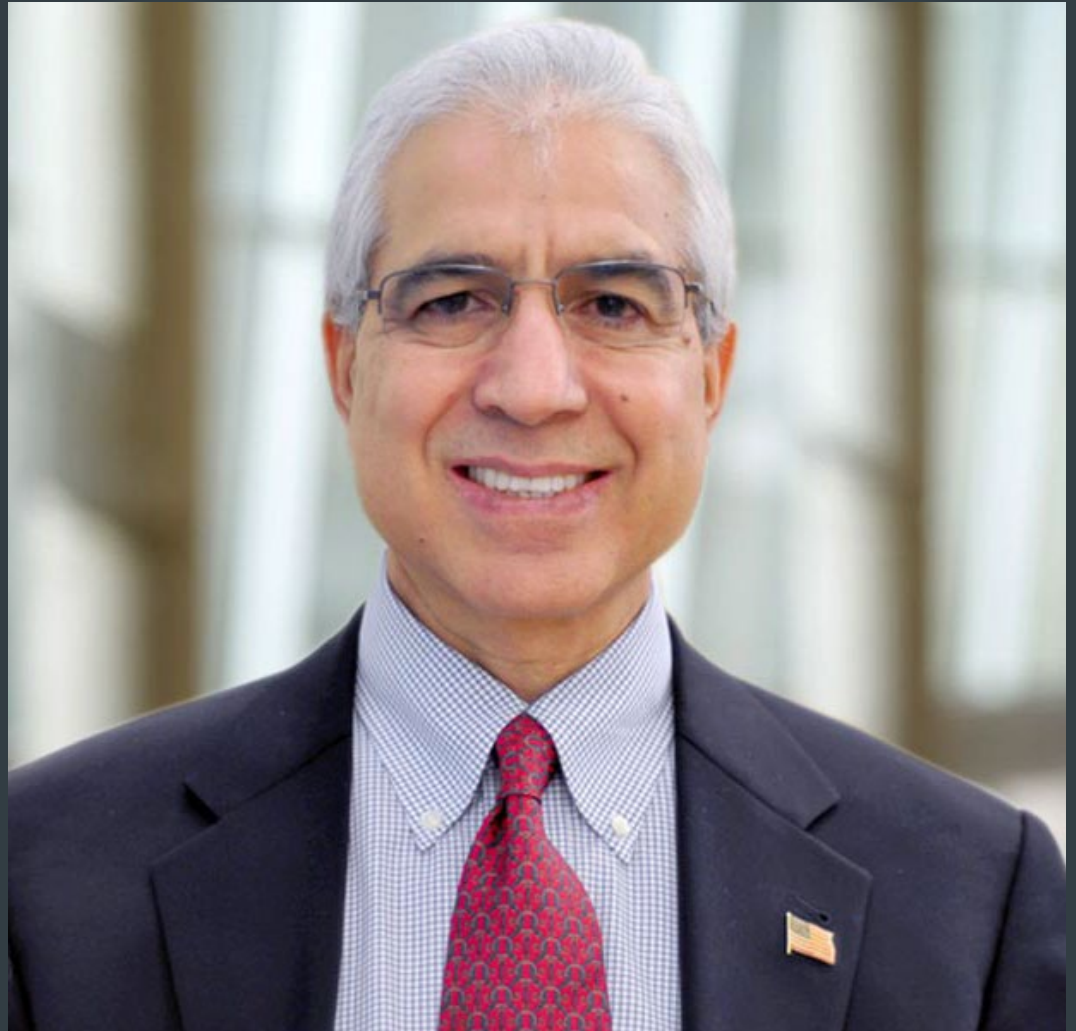
CAR-T Cells Comprising Inactivated Cbl and Cbl-B Genes

Hamid Band,
MD, PhD

*Vimla Band,
PhD*

Fany Iseka

*Bhopal
Mohapatra, PhD
Matthew Storck*



Distal Radius Plating System

Dan Firestone,
MD



Platform Device and Method of Use to Assist in Anastomosis Formation

Marius Florescu,
MD



Apparatus for Wrist and Catheter Stabilization

Andrew Gard,
MD

*Daniel Surdell,
MD*

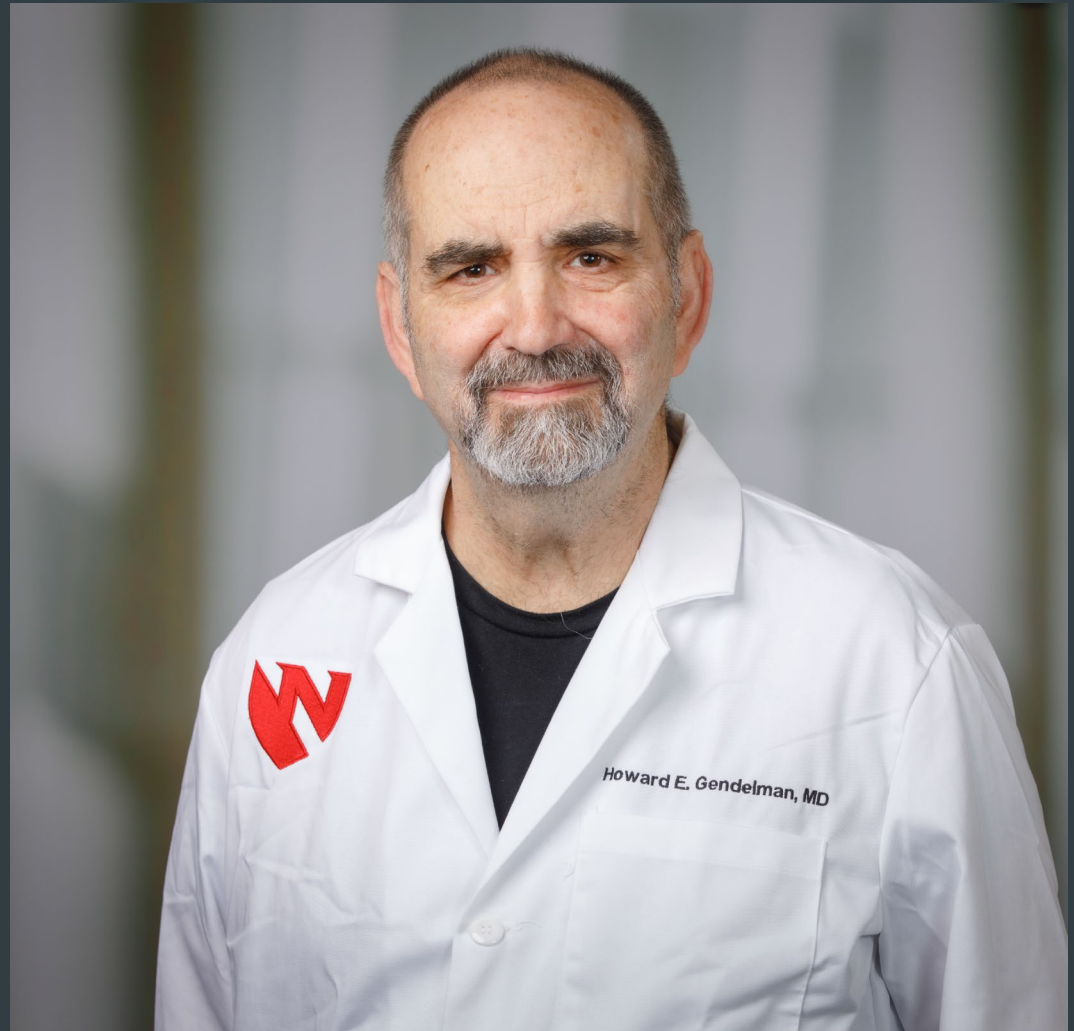
*William Thorell,
MD*

*Carlos Alvarez,
MD*



Methods and Compositions for Inhibiting Diseases of the Central Nervous System

Howard
Gendelman, MD
Lee Mosley,
PhD



Antiviral Prodrugs and Nanoformulations Thereof

Howard
Gendelman, MD
Benson
Edagwa, PhD



On-Board Tool Tracking System and Methods of Computer Assisted Surgery

Hani Haider,
PhD

Andres Barrera,
PhD

Ibrahim Al-
Shawi, PhD



Triazole Bisphosphonate Geranylgeranyl Diphosphate Synthase Inhibitors

Sarah Holstein,
MD, PhD



Gene Therapy for Juvenile Batten Disease

Tammy Kielian,
PhD



Automatically Deployable Intravascular Device System

Jason
MacTaggart,
MD, FACS

Alexey
Kamenskiy, PhD



Surgical Devices and Methods

Jason
MacTaggart,
MD, FACS

*Alexey
Kamenskiy, PhD*

*Paul Deegan,
MS*



Bypass Graft

Jason
MacTaggart,
MD, FACS

*Alexey
Kamenskiy, PhD*

*Kaspars
Maleckis, PhD*



User-Paced Exercise Equipment

Molly Schieber,
PhD
UNO Inventors



Antimicrobial Compositions Containing Synergistic Combination of Activated Creatinine and an Imidazole Antifungal Agent

Steven Tracy,
PhD



Anti-Microbial Peptides

Gus Wang, PhD

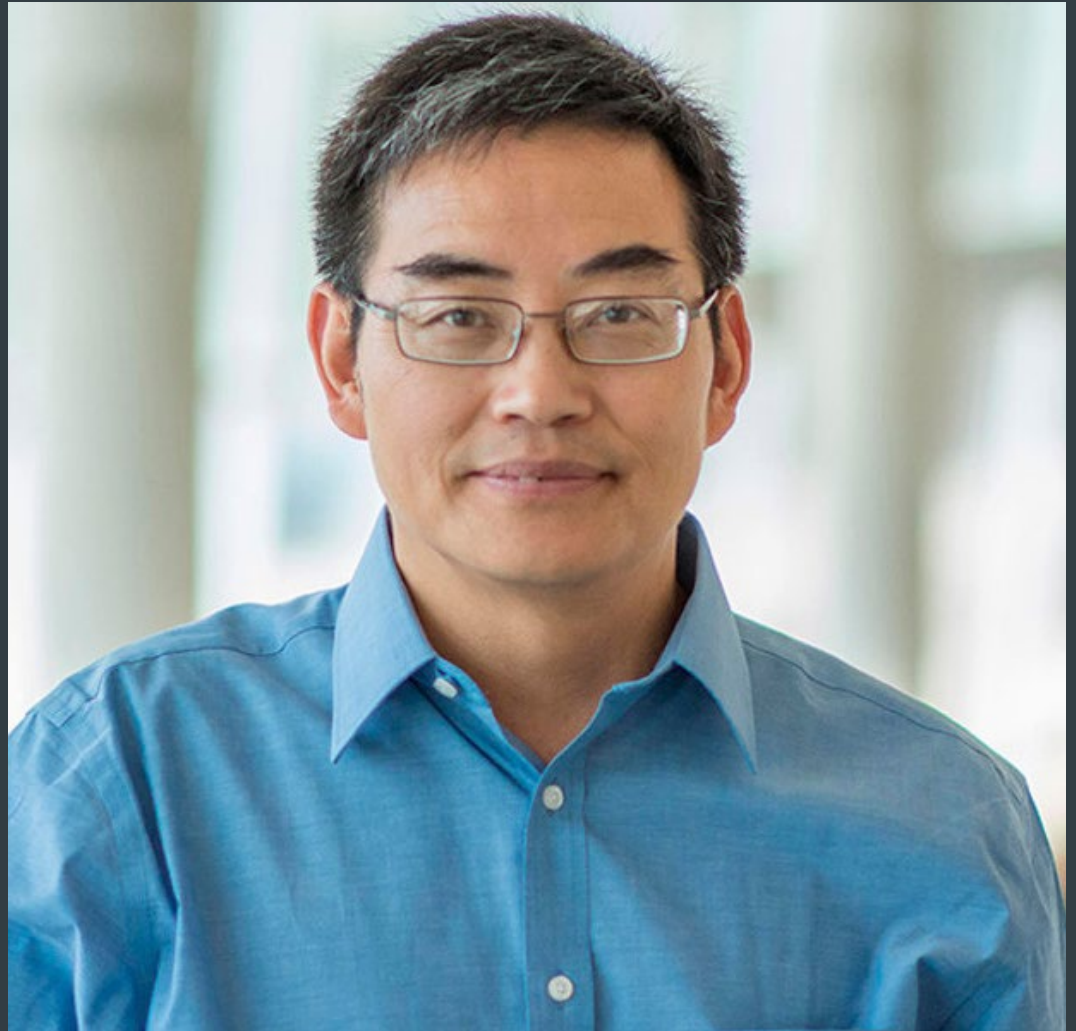
Biswajit

Mishram, PhD

Jayaram

Lakshmaiah

Narayana, PhD



Nanofiber Segments and Methods of Use Thereof

Jingwei Xie,
PhD

Sunil Kumar
Boda, PhD



Compositions and Methods for the Treatment of Peripheral Artery Disease and Cardiopulmonary Diseases

Irving Zucker,
PhD

*Michael
Lankhorst, MD*

*Steven Lisco, MD,
FCCM, FCCP*

Hanjun Wang, MD

Dong Wang, PhD



New R03 & R21 Awards

2024-2025

Arpan Acharya, PhD

Pharmacology & Experimental Neuroscience

SIV reservoirs
dynamics during
aging



Keshore Bidasee, PhD

Pharmacology & Experimental Neuroscience

Neurological
Disorders in
HIV-1 Infection



Bin Duan, PhD

Internal Medicine: Cardiovascular Medicine

Flupirtine
Analogue
Synthesis and
Screening for
the Treatment of
Chemotherapy-
Induced
Neuropathic
Pain (Parent
Duan)



Sidharth Mahapatra, MD, PhD
Pediatrics & Biochemistry and Molecular
Biology

Silencing B7-H3
mitigates tumor
aggressiveness
in group 3
medulloblastoma



Natalia Osna, MD, PhD
Pharmacology & Experimental Neuroscience

Non-ISGylated
HIV proteins are
sorted to hepatic
exosomes to
activate liver
fibrosis



Lisa Rucks, PhD

Pathology, Microbiology & Immunology

Chlamydia
trachomatis
manipulates
(PI)CALM to
carry on



Wallace Thoreson, PhD

Ophthalmology & Visual Sciences

Using optical sensors to measure synaptic glutamate release from retinal rod photoreceptor cells



Shibiao Wan, PhD

Genetics, Cell Biology, and Anatomy

Leveraging
Heterogenous
Common Fund
Data Sets and
Beyond for
Identifying Lung
Cancer
Subtypes



New P, U, & F Awards

2024-2025

Ann Anderson Berry, MD, PhD

Pediatrics: Neonatology

U24: Optimizing
Pharmacologic
Treatment for
Neonatal Opioid
Withdrawal
Syndrome
(OPTimize
NOW)



Joshua Bies, MD

Pediatrics: Hematology/Oncology

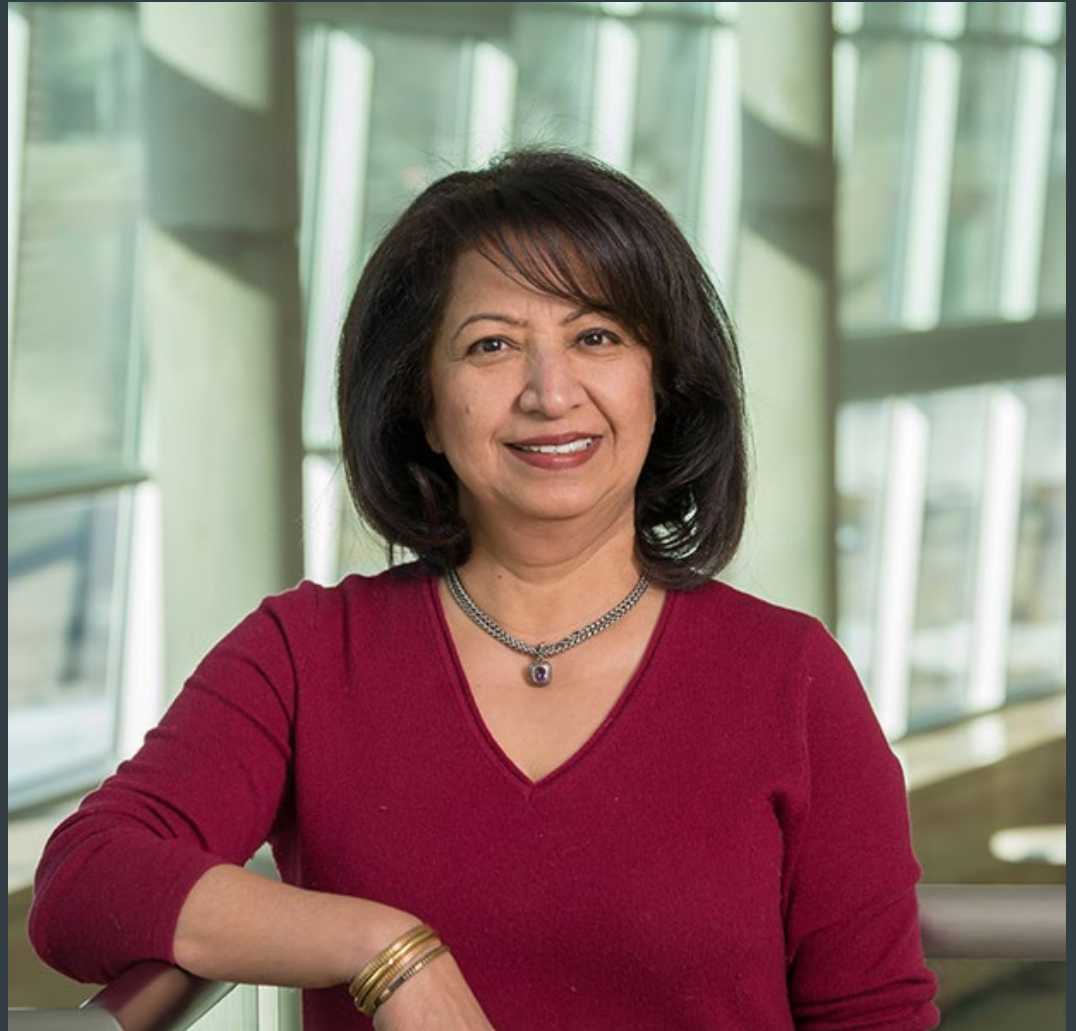
U01: A randomized trial of low versus moderate exposure busulfan for infants with severe combined immunodeficiency (SCID) receiving TCRa⁺/CD19⁺ depleted transplantation: A Phase II study by the Primary Immune Deficiency Treatment Consortium (PIDTC)



Shilpa Buch, PhD

Pharmacology & Experimental Neuroscience

P20: Rural Drug
Addiction
Research Center
(Phase 2)



Taylor Burke

MSTP MD-PhD Program

F30: Nitrogen
Metabolism of
*Staphylococcus
aureus*



Carol Casey, PhD
Internal Medicine: Gastroenterology &
Hepatology

P30: Nebraska
Center for the
Prevention of
Obesity
Diseases
through Dietary
Molecules



Becky Deegan, PhD

Biochemistry and Molecular Biology

U19: Gut
microbiome-
focused
approaches for
improving
treatment of
acute radiation
injuries



Apar Ganti, MD

Internal Medicine: Oncology & Hematology

U10: Alliance
U10CA180821
Operations
grant



Oleg Korzyukov, PhD

Neurological Sciences

P20:
Bioelectrical
markers of age-
related
neurodegenerati
ve diseases
derived from
manifestations
of central
auditory
processing



Matthew Lunning, DO, FACP

Internal Medicine: Hematology/Oncology

U24: Increasing
Clinical Trials in
IDeA States
through
Communication
of Opportunities,
Effective
Marketing, and
Workforce
Development



Aleem Siddique, MBBS, FACS, FACC

Surgery: Cardiothoracic Surgery

UH3:
IMPRoving
Outcomes in
Vascular
disease ? Aortic
Dissection
(IMPROVE-AD)



Erica Stohs, MD, PhD

Internal Medicine: Infectious Diseases

U01:
Cytomegalovirus
(CMV) Vaccine
in Orthotopic
Liver Transplant
Candidates
(COLT)



Meghan Ramirez

Neurological Sciences

F99: Understanding the developmental impact of environmental risk factors on brain and cognitive systems vulnerable to Alzheimer's disease in children



Andy Vasey, MD

Internal Med: General

U54: Immulina
as an Antiviral
Immune
Modulator for
Patients with
PASC and
Persistent
Inflammation



New R01 Awards

2024-2025

Mabruka Alfaidi, MD, PhD

Cellular and Integrative Physiology

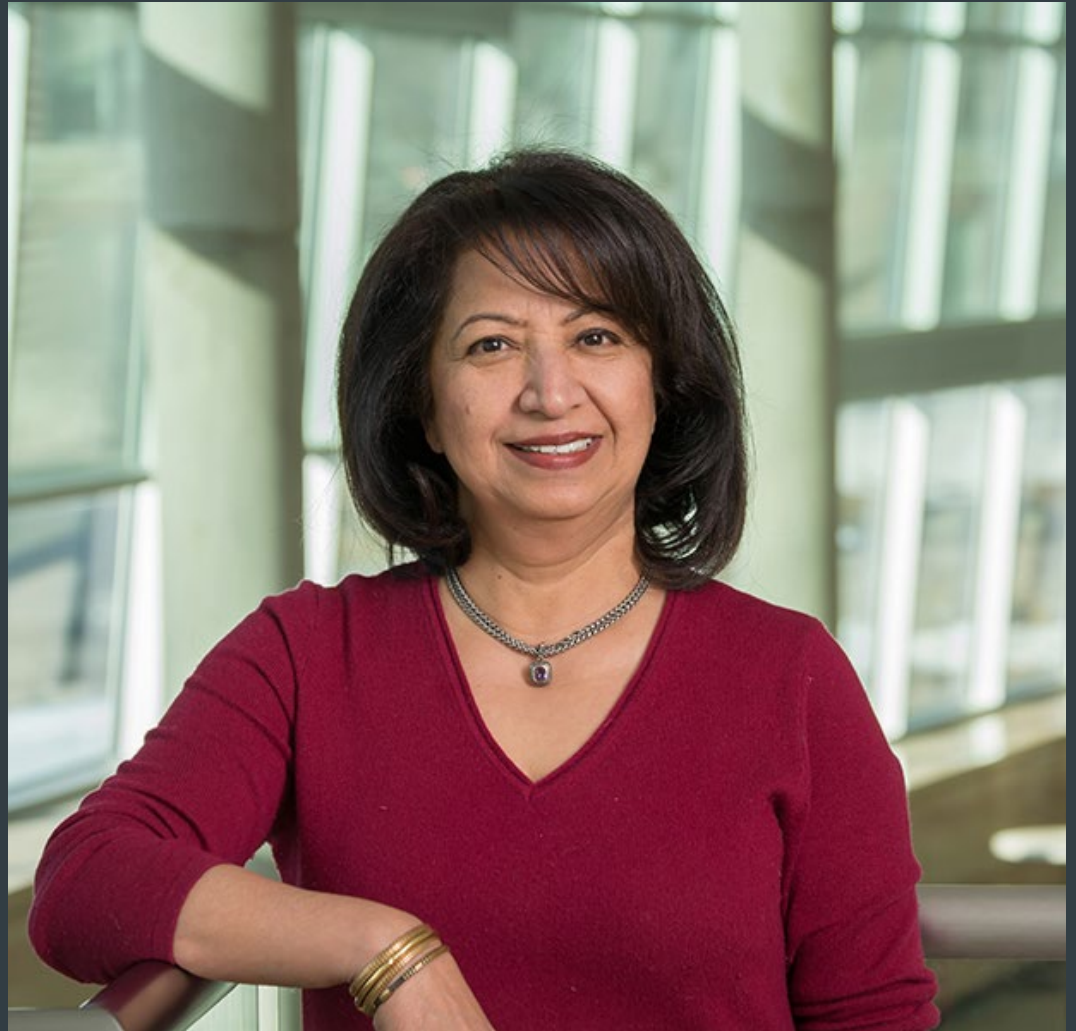
IL-1R1 in
Endothelial-to-
Mesenchymal
Activation



Shilpa Buch, PhD

Pharmacology & Experimental Neuroscience

Molecular
interplay of HIV
Tat, cocaine,
and cART in
microglial
pyroptosis: Role
of NLRP3
inflammasome



Siddappa Byraredy, PhD

Pharmacology & Experimental Neuroscience

1. Cannabinoid inhibition of CNS inflammasome activation via modulation of the gut-brain axis
2. Sex differences in modulating HIV/SIV reservoirs in the context of opioids



Rey Carabeo, PhD

Pathology, Microbiology & Immunology

Functional
relevance of *C.*
trachomatis trp
operon
polymorphism



Anna Dunaevsky, PhD

Neurological Sciences

Contribution of
Glia to
Sleep/Wake
Disturbances in
FXS



Kurt Fisher, MD, PhD

Pathology, Microbiology & Immunology

Assessment of
strategies for
targeting
transcriptional
co-activators in
colorectal
cancer



Howard Gendelman, MD

Pharmacology & Experimental Neuroscience

Targeted lipid
nanoparticles for
gene
therapeutics
delivery
approach to
eradicating HIV
reservoirs



Santhi Gorantla, PhD

Pharmacology & Experimental Neuroscience

Master -
Preclinical
Services for HIV
Therapeutics:
75N93021D000
06



Russell McCulloh, MD

Pediatrics: Hospital Medicine

Mobile Health for
Migrant Health
(mHealth-4-
Mhealth):
Assessing the
Effectiveness of
Implementing an
mHealth Program
to Increase COVID-
19 Testing and
Treatment Among
Rural Migrant
Families



Saraswathi Viswanathan, PhD
Internal Medicine: Diabetics, Endocrinology, & Metabolism

Redox Signaling
and AMPK
Crosstalk on
Alcohol-Induced
Multi-Organ
Damage: Liver
and Adipose
Tissue



Hanjun Wang, MD

Anesthesiology

Stellate Ganglia
Nrf2 Signaling
and Enhanced
Cardiac
Sympathetic
Tone in Chronic
Heart Failure



Peng Zhong, PhD

Neurological Sciences

Mechanistic
studies of opiate
withdrawal-
induced sleep
disturbances



THANK YOU

Dr. Guda w/ the COM RDC
Chris Christen w/ UNMC
Creative Services

Jeff Robb w/ UNMC Today
Tara Witte w/ UNMC's Print
Office

COM Department
Administrators

Hannah Kirby w/ Big Grove
Brewery Catering

Teresa Friesen w/ Catalyst
Omaha

Emily Glenn w/
McGoogan Health
Sciences Library

James Geiger and Jack
Noecker w/ VCR

Heather Braddock w/
IDeA-CTR

Dr. Max Kuenstling w/
VCR

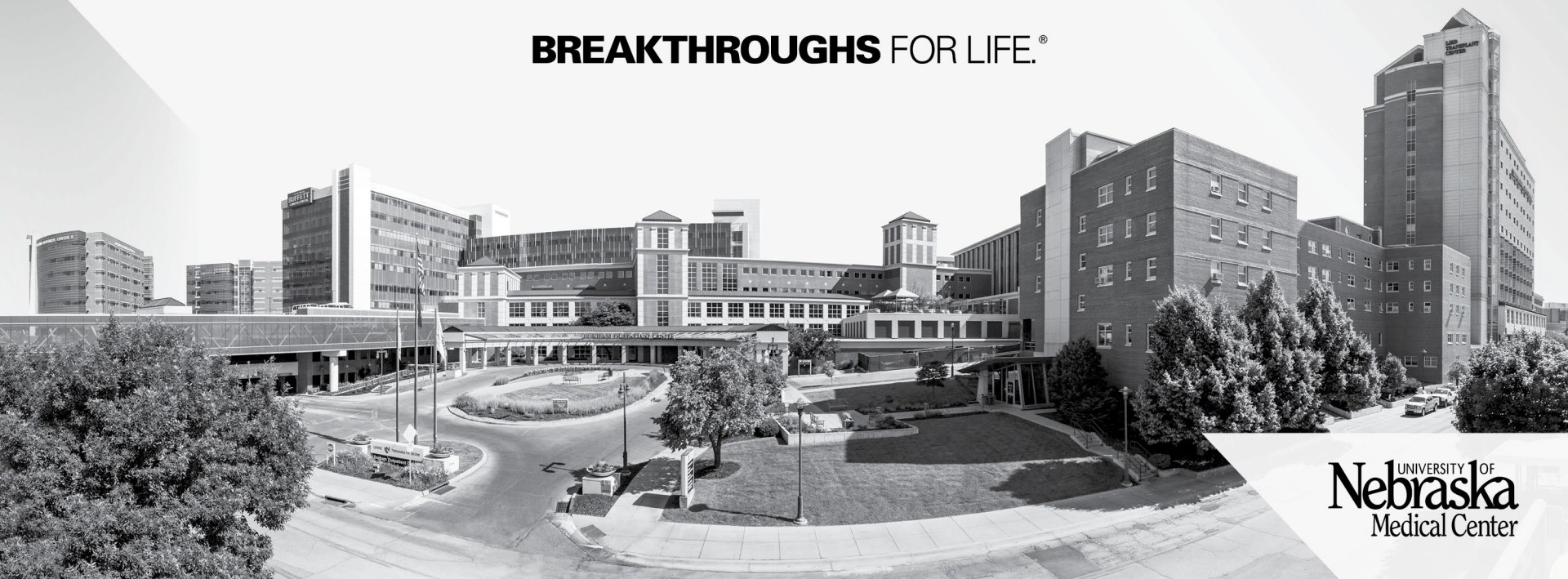
Dr. Tess Kuenstling w/
VCR





University of Nebraska Medical CenterSM

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Nebraska
Medical Center