



ANNUAL REPORT

Program to Advance Physician
Scientists and Translational Research
(PAPSTR)



Anschutz

School of Medicine

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OVERVIEW

The School of Medicine Program to Advance Physician-Scientists and Translational Research aims to advance the career of physician-scientists and improve the impact of translational and interdisciplinary research at the University of Colorado Anschutz Medical Campus. The overall goals of this Program are to expand the training pipeline for physician-scientists, improve retention and enhance recognition of physician-scientists, and foster the development of translational, interdisciplinary, and programmatic research on campus. To achieve these goals, we have developed:



Research training programs for post-baccalaureates, medical students, and medicine trainees;



Grant support programs for MD and PhD scientists that focus on early and established faculty, translational research, and team science;



Career development opportunities for trainees, early faculty, and established scientists; and



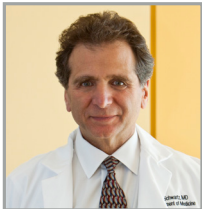
Mechanisms to improve recognition of accomplished translational scientists.

In aggregate, the Program to Advance Physician-Scientists and Translational Research strives to expand the workforce of physician-scientists, improve the impact and recognition of research in translational sciences, and establish an interactive and supportive community of interdisciplinary investigators focused on translational sciences. This Program was established in late 2021 and is supported by the School of Medicine.



We have just completed the fourth year of the program, and have continued our work focusing on physician-scientists and translational scientists from across the spectrum of research and at all career levels. Our research programs support a full spectrum of scientists and physicians, including students, trainees, early career MD and PhD faculty, and established faculty focused on developing programmatic research. We support both MD and PhD scientists because we believe that the success of physician-scientists, especially those focused on translational sciences, is dependent on an integrated network of scientists that bring basic and applied perspectives to solve unmet needs in biomedical research. This year, we have again grown the number of funded investigators in our programs focused on early career faculty (TRSP) and programmatic research (ASPIRE), as well as our NHLBI-supported StARR research training program for housestaff in Medicine, Pediatrics, and Surgery. We have also onboarded a second scholar, and accepted a third, in our B2MR post-baccalaureate program for college graduates seeking a two-year research experience before applying to MD or MD-PhD programs.

Our physician-scientist program is unique among programs nationwide. We collaborate across departments, institutes, and centers on campus, and we continue to support physician-scientists across various training and career stages, along with multiple diverse fields of research.



DAVID A. SCHWARTZ, MD
Director
Distinguished Professor of
Medicine and Immunology
Associate Dean for
Translational Sciences



JENNIFER KEMP, PhD
Associate Director,
Director, Research
Office, Department
of Medicine



SARAH MILLER
Program Manager

CONTRIBUTING SCIENTISTS



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CU TRSP PROGRAM
CO-DIRECTOR
Distinguished Professor of
Medicine/Gastroenterology



LORI SUSSEL, PHD
CU ASPIRE PROGRAM
CO-DIRECTOR
Assistant Vice Chancellor
for Basic Science Research,
Professor of Pediatrics and Cell
& Developmental Biology, Sissel
and Findlow Stem Cell Chair

Our investments in research are paying off. The ASPIRE (Anschutz Programmatic Incubator for Research) Program is our incubator/accelerator program for programmatic research has stimulated the submission of 4 new program projects on campus with several in preparation. These 4 programs have focused on basic immune surveillance, lung cancer, post-partum breast cancer, and traumatic loss in vision. In there are several other ASPIRE groups that are planning to submit program project applications in the next year. We also made new awards in 2025 to 3 teams of investigators with promising collaborations in a diverse array of medicine and science; thus we have now funded 15 programs in total. In addition to the funding provided by ASPIRE, we have actively mentored and provided guidance to each of these research teams at least on a quarterly basis. As evidence of the momentum and promise of the ASPIRE Program, the Cancer Center continued their partnership with PAPSTR to expand the number and scope of ASPIRE awardees for the 2025 grant cycle, generously providing partial support to two of our new teams awarded in 2025 (in addition to the teams supported by the Cancer Center in 2023 and 2024).

WE HAVE ALSO MADE SIGNIFICANT STRIDES THIS YEAR IN OTHER INITIATIVES, INCLUDING:

-  Former StARR scholar Elizabeth “Ellie” McGinn was awarded a K38 grant which is a career development award available only to StARR scholars
-  Continued enrollment in our NHLBI supported StARR program for housestaff in Medicine, Pediatrics, and Surgery
-  Continued integration of the Medicine, Pediatric, and Surgery Physician-Scientist Training Programs
-  Monthly interdepartmental discussions with physician-scientists focused on medical students, MSTP and PSTP trainees, and scholars in our Translational Research Scholars Program (TRSP)
-  Expansion of the SOM Translational Research Scholars Program (TRSP)
-  Implementation of metrics to evaluate programs and track accomplishments

FUTURE CHALLENGES AND OPPORTUNITIES INCLUDE:

-  Institutionally standardize incentives for programmatic research
-  Greater exposure of medical students, PhD students, and clinical trainees to physician-scientists
-  Integration between the clinical and basic sciences
-  Establish CU as a center of excellence for physician-scientists through foundation and federal support, and
-  Establish sustainable support through philanthropic funding of PAPSTR



EDUCATION, TRAINING AND CAREER DEVELOPMENT

Section

01

POST-BACCALAUREATE PROGRAM: BACCALAUREATE TO MEDICINE AND RESEARCH PROGRAM

Our Baccalaureate to Medicine and Research Program (B2MR) is a two-year program that provides a unique training opportunity for recent baccalaureate graduates who are interested in applying to medical school for an MD or MD, PhD degree and desire additional experience in biomedical research prior to their application. Trainees conduct mentored research on the Anschutz Medical Campus to expand their research skills. They also participate in professional and career development activities designed to support their application to medical school.

B2MR serves as the pre-MD or pre- MD, PhD counterpart to PIKE-PREP (pre-PhD), a longstanding program on campus led by Dr. Eduardo Davila that provides a training opportunity for post-baccalaureate students who seek more training and experience before applying to graduate school.



Ariel Alexander was the inaugural scholar for B2MR and joined in July 2024 after graduating from Carlton College with a major in biology on the pre-MD/PhD track. Ariel works in the laboratory of Dr. Nicole Tuitt and is studying epidemiology, health disparities, and utilizing mixed methods to address human health and wellness issues in underrepresented populations. Ariel presented her research this year via an oral group presentation, titled 'Youth Engaged Approaches to Promote Positive Health Outcomes', at the Healing the Divide Conference hosted by the Center for Health

Equity at the University of Colorado Anschutz Medical Campus held in October of 2025. This conference was attended by health equity scholars and physicians, along with community partners and organizations. Ariel plans to attend medical school and following the completion of her B2MR program this summer will matriculate in the pre-medicine program at the University of Chicago.



Our second B2MR scholar, Sola Adeyiga, started the program in June 2025. Sola graduated from the University of Illinois with a degree in Brain and Cognitive Science on the pre-MD/PhD Track. Sola works in the Emotion and Development laboratory directed by Dr. Joel Stoddard, which studies the neurocognitive basis of emotional disorders in children, adolescents, and young adults. In 2025, Sola presented a Theme K based on public awareness/ethical & policy issues in Neuroscience at the Society for Neuroscience (SfN) Conference and the Annual Biomedical Research Conference for Minority Students (ABRCMS). To gain clinical experience, Sola

volunteers as a Care Coordinator at the free student-run clinic (DAWN). Her role is systematically screening for social determinants of health (SDOH) and acting as a clinical resource navigator, connecting patients with community-based services for food security, housing, and economic stability. She is also currently shadowing in the Psychiatry refugee clinic with Dr. Savin. In the coming months, she hopes to interact more with refugees and immigrants through Project Worth as a language acquisition volunteer. Sola is currently preparing a first author research manuscript and hopes to present its findings at the American Medical Informatics Association (AMIA) annual Symposium this year.



PAPSTR will soon welcome to campus the newest B2MR scholar, Sofia Del Castillo, who will graduate from Tufts University in spring 2026 with a Bachelor of Science degree in Biomedical Engineering. Boasting an outstanding academic record in a challenging program, Ms. Del Castillo also has a strong history of research at Tufts, including her current work on triple negative breast cancer for her Engineering Design Capstone team project. This project investigates the collagen driven signaling response to chemotherapy and seeks to learn how collagen structure supports cell survival during treatment. Ms. Del Castillo is passionate about becoming a physician scientist and will join Dr. Christene Huang's in the Transplant Immunology Lab in the Department of Surgery.



Estimated support for each student totals \$50k/year for two years, which includes a \$40k stipend plus travel and tuition reimbursement for graduate and medical school preparation courses. Total cost of this program is approximately \$100k/year.

B2MR STATS:



1

1 Scholar awarded in June 2024 who will graduate this year and matriculate in the pre-medicine program at the University of Chicago



1

1 scholar awarded in June 2025 who is mentored by Dr. Joel Stoddard.



50

Over 50 applications received for 2026 with 1 scholar awarded for June 2026 and will be mentored by Dr. Christene Huang.

MEDICAL STUDENTS: EMERGING PHYSICIAN-SCIENTISTS PROGRAM

PAPSTR provides funding for the Emerging Physician-Scientist Program that focuses on research training for medical students. This Program works closely with the Medical Student Scholars Year which is led by Dr. Elizabeth Gundersen, associate professor of Hospice and Palliative Medicine at the University of Colorado. Since inception in 2022, PAPSTR has supported 8 medical students to pursue research in translational sciences. The Program provides \$5,000 each (\$1,000 for travel to a national conference or workshop, plus a stipend of \$4,000) for each participant. These medical students are selected by a committee process through a merit-based review. The students and their mentors meet quarterly with Dr. David Schwartz.



Aditya Kumar (2025)

Department of Neurosurgery
Research Topic: Analyzing neural synchrony in patients performing cognitive tasks, using measures such as phase-locking value (PLV) and theta coherence



Yan Zhou (2025)

Department of Neurosurgery
Mentor: Todd Hankinson, MD, and Siddhartha Mitra, MD
Research Topic: Investigate the biological mechanisms of radiation and drug responses of adamantinomatous craniopharyngioma (ACP), with a focus on the tumor microenvironment

EMERGING SCHOLARS

Previous Scholars	Year(s) supported	Department	Mentor/Research Topic	Current Position
Caitlin Blades	2022-2023	Department of Surgery, Division of Plastic and Reconstructive Surgery	Drs. David Mathes and Christene Huang. Investigate the role of the immune system in the pathophysiology of keloid scars.	Pending
Gordon Matthewson MD	2023	Department of Neurology	Discrepancies between memory care patients and their caregivers, and how these relate to clinical trajectories to provide important characterization metrics of the patient population to support CU's Memory Disorders Clinic	Neurology resident at the Dartmouth-Hitchcock Medical
Shaquia Idlett-Ali, MD, PhD	2023	Radiology	Sana Karam, MD, PhD: Targeting nerve-mediated immunosuppression in the tumor microenvironment of head and neck squamous cell carcinoma	Preliminary year of residency in internal medicine at CU, followed by radiation oncology residency at CU in July 2026.
Anna Ha	2024	Departments of Anesthesiology and Surgery, Division of Transplant Surgery.	Drs. Yanik Bababekov and Jesse Schold: Investigate social determinants of health that contribute to solid allograft utilization including liver, kidney, pancreas, heart and lungs, using novel perfusion technologies that aim to expand donor allografts.	MS4, matched with General Surgery, Carolinas Medical Center, NC
Priya Wolff	2024	Electrical and Computer Engineering, Colorado State University	Dr. Jesse Wilson: Provide primary care clinicians with non-invasive tools for the accurate assessment of skin lesions	MS4, matched with Dermatology, University of Texas Medical Branch-Galveston
Maksym Goryachok	2024	Department of Otolaryngology-Head and Neck Surgery	Dr. Sarah Clark: Understanding of host-commensal-pathogen interactions in a cell model of cystic fibrosis	MS4, matched with Internal Medicine, Stanford Health Care-CA

EMERGING PHYSICIAN SCIENTIST SCHOLAR STATS:



8

total scholars funded since 2022



~30

Nearly 30 publications

Housestaff Research Program

StARR Program in Medicine, Pediatrics and Surgery

The goal of the Colorado StARR (Stimulating Access to Research in Residency) Program is to recruit, train, and retain outstanding clinician investigators focused on translational research in heart, lung, and blood disorders. This program is supported by an NIH grant (NHLBI: R38- HL143511) and the departments of Medicine, Pediatrics, and Surgery. The Program was established in 2020 and provides a career-defining research experience by leveraging our successful clinical and research enterprise that includes:

- Outstanding residents undergoing rigorous clinical training
- Diverse spectrum of accomplished and experienced mentors
- Environment of state-of-the-art facilities and resources
- Successful fellowship and collaborative training programs in heart, lung, sleep, and blood disorders

Each year, the program selects 4-6 residents to support and engage in mentored research for 1-2 years during their housestaff training. The StARR program protects 80% time for research training. The NHLBI supported StARR Program was successfully renewed in 2023 (R38-HL143511). We received funding for five additional years of programmatic support for four scholars each year. To date, the program has made 25 awards, including residents from Medicine, Pediatrics, and Surgery:

STARR SCHOLAR STATS



3 New scholars awarded in 2025



7 Current scholars



14 Former scholars



Former StARR scholar Elizabeth “Ellie” McGinn was awarded a K38 grant which is a career development award available only to StARR scholars



180+ Total Publications to Date



CURRENT SCHOLARS

**Dana Arenz, MD (2025)**

Department of Medicine
Mentor: Benjamin Kopecky, MD

Deciphering Immune-Stromal Interactions in
Right Ventricular Remodeling and Failure

**Sadie Meller, MD**

Department of Pediatrics (2025-2026)
Mentor: Ken Tyler, MD

How microglia's response to EV-D68 infection
may underline the age dependent window of
vulnerability to EV-D68 induced paralytic disease

**Jay Breithaupt, MD**

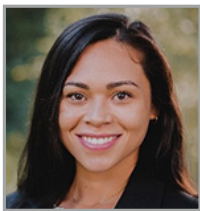
Department of Surgery (2025-2026)
Mentors: Stephanie Nakano, MD, and
Matthew Stone, MD

Developing a Tissue Engineered Model
of Hypoplastic Left Heart Syndrome:
Insights into Chronic Hypoxia and
Ischemia-Reperfusion Injury

**Bo Chang "Brian" Wu, MD**

Department of Surgery (2024-2026)
Mentor: T. Brett Reece, MD

Protective role of mitochondrial
transplantation in an in vivo murine middle
cerebral artery occlusion stroke model

**Caitlin Eason, MD**

Department of Surgery (2024-2026)
Mentor: Christopher Derderian, MD

Effect of miRNA's and EV's on angiogenesis
Current Position: CU Surgery
Research Resident

**Ioannis Ziogas, MD**

Department of Surgery (2025-2026)
Mentor: Sarah Taylor, MD

Senescent cell-M signaling promotes tissue
regeneration in neonatal obstructive cholestasis
whereas impaired senescent cell clearance drives
proinflammatory tissue injury in adult disease

NEWLY AWARDED SCHOLARS

**Hirsh Elhence, MD (2026-2027)**

Department of Medicine
Mentor: Sean Colgan, PhD

Understanding the mechanisms that
influence protoporphyrin IX accumulation in
hypoxic versus normoxic colorectal cancer
cells focus on the tumor microenvironment

Previous Scholars	Year(s) supported	Department	Mentor	Project Title	Current Position
Jayce Pangilinan, MD	2020	Medicine	Kara Mould, MD	Corticosteroid effect on inflammatory profiles in severe COVID-19	CU Renal 2nd year Fellow
Elizabeth McGinn, MD	2022	Pediatrics	Erica Mandell, MD	Defining developmental dysanapsis in an animal model of bronchopulmonary dysplasia	CU Pediatric Critical Care Medicine Fellow
August Longino, MD	2022	Medicine	Ivor Douglas, MD	Clinical Utility of Longitudinal Measurement of Hemodynamic Incoherence and Endothelial Glycocalyx Breakdown Among Critically Ill Patients with Early Sepsis	Physician Scientist, Denver Health
Alexander Heilman, MD	2022	Medicine	Sridharan Raghavan, MD	Address gaps in the care of diabetes patients early after diagnosis, specifically regarding the appropriate initiation of statin medications to mitigate cardiovascular risk	CU Surgery Resident, PGY5
John Inguibashian, MD	2022	Surgery	Matthew Stone, MD	Role of sphingosine-targeted therapies in cardiac transplantation and potential therapeutic role in preventing and rehabilitating donor organs from ischemia-reperfusion injury	University of Minnesota, cardiology fellow
Isabel Hardee, MD	2023	Pediatrics	Andy Liu, MD	Airway Molecular Endotypes and Viral Infection in Toddlers Hospitalized for Wheeze	Boston Children's Hospital, pediatric emergency medicine, 2nd year fellow
Natalie Longino, MD	2023	Medicine	William Robinson, MD	Comparing NK cell profiles within melanoma tumors and pregnancy: Implications for novel immunotherapies	CU Medical Oncology 2nd year fellow
Katarina Leyba, MD	2023	Medicine	Dave Kao, MD	Heart failure subpopulations and phenotyping	UT Southwestern, Internal Medicine, 1st year fellow

Previous Scholars	Year(s) supported	Department	Mentor	Project Title	Current Position
Kaitlyn McLeod, MD	2023	Medicine	Prateeti Khazanie, MD	Cardiology clinical trials and outcomes	Cardiology disease 2nd year fellow, University of Michigan
Lindsay Thomson, MD	2023	Pediatrics	Jesse Davidson, MD, and Benjamin Frank, MD	Proteomic profiling and comprehensive proteomic pathway mapping: a systems biology approach to cardiovascular failure and multiorgan injury following Extracorporeal Membrane Oxygenation (ECMO) in congenital heart disease.	Boston Children's Hospital, pediatric cardiology fellowship program, 2nd year categorical fellow
Jack Zakrzewski, MD	2023-2024	Surgery	Matthew Stone, MD	A murine heart transplant model to study therapeutic potential of SP1 delivery to donor hearts	CU Surgery Resident, PGY3
Kellen Gil, MD	2024-2026	Medicine	Maria Amaya, MD	Pro-inflammatory signaling axis in myelodysplastic syndrome (MDS)	CU Internal Medicine Resident, R3
Shravya Pothula, MD	2024	Medicine	Daniel Kao, MD, and Joseph Scott Lee, MD	Metagenomic and metabolomic analysis of host-microbe cross metabolism of purines and short chain fatty acids in human inflammatory bowel disease and experimental colitis	CU Internal Medicine Resident, R3
Ryen Ormesher, MD	2024	Medicine	Irina Petrache, MD	Biomarkers in COPD predisposing to pulmonary hypertension	CU Internal Medicine Resident, R3
Lauren Maloney, MD	2025	Pediatrics	Sarah Taylor, MD	Age-specific differences in the immune response to obstructive cholestasis	CU Pediatrics Resident, PL3

SCHOLAR SPOTLIGHT



Elizabeth "Ellie" McGinn, MD, former StARR scholar (2022), and pediatric critical care fellow, was awarded an NIH Stimulating Access to Research in Residency Transition Scholar (StARRTS) K38 grant for her project, 'The Role of Developmental Dysanapsis Throughout the Lifespan in Experimental Bronchopulmonary Dysplasia.' The NIH Stimulating Access to Research in Residency Transition Scholar (StARRTS) K38 grant is designed to support early-stage clinician-scientists during their residency or fellowship training who have completed 1-2 years as a R38 scholar. Dr. McGinn will receive nearly \$170,000 over the next two years to support research supplies and professional development activities, including travel to attend workshops and conferences. Dr. McGinn will be paired with mentors during her project who will support her research and career development.

ADDITIONAL HIGHLIGHTS

- **Dana Arenz, MD**, will be presenting her StARR research, "Investigating the Immune and Stromal Changes of the Right Ventricle in Patients with Right Heart Failure" at the national American College of Cardiology Conference in New Orleans on March 28th.
- **Ioannis Ziogas, MD**, received the following grants/awards: April 2025: Southwestern Surgical Congress Travel Scholarship; June 2025: Ben Eiseman Research Award in Clinical Science (\$300); September 2025: The Transplantation Society Congress Scientific Award 2025 - 13th Congress of the International Pediatric Transplant Association; October 2025: Association for Academic Surgery Fall Courses Award 2025 (\$1,000)
- **Caitlin Eason, MD**, won a travel award for a conference in October for her StARR project called: International Fetal Medicine and Surgery Society Travel Award.
- Former scholar **Jack Zakrzewski, MD**, submitted his StARR project as an abstract to the American Association of Thoracic Surgery Annual meeting and it was selected as a finalist in the C. Walton Lillehei Resident Forum, which is the resident basic science competition. He will be presenting it on 5/3/26 at the 106th Annual AATS Meeting in Chicago.

StARR PRINCIPAL INVESTIGATORS



PETER BUTTRICK, MD
S. Gilbert Blount
Endowed Professor



DAVID A. SCHWARTZ, MD
Distinguished Professor
of Medicine and
Immunology
Associate Dean for
Translational Sciences



STEVE ABMAN, MD
Director, Pediatric
Heart-Lung Center
Founder and co-director
Pediatric Pulmonary
Hypertension Program
Professor of Pediatrics

CAREER DEVELOPMENT SEMINARS AND TRAINING

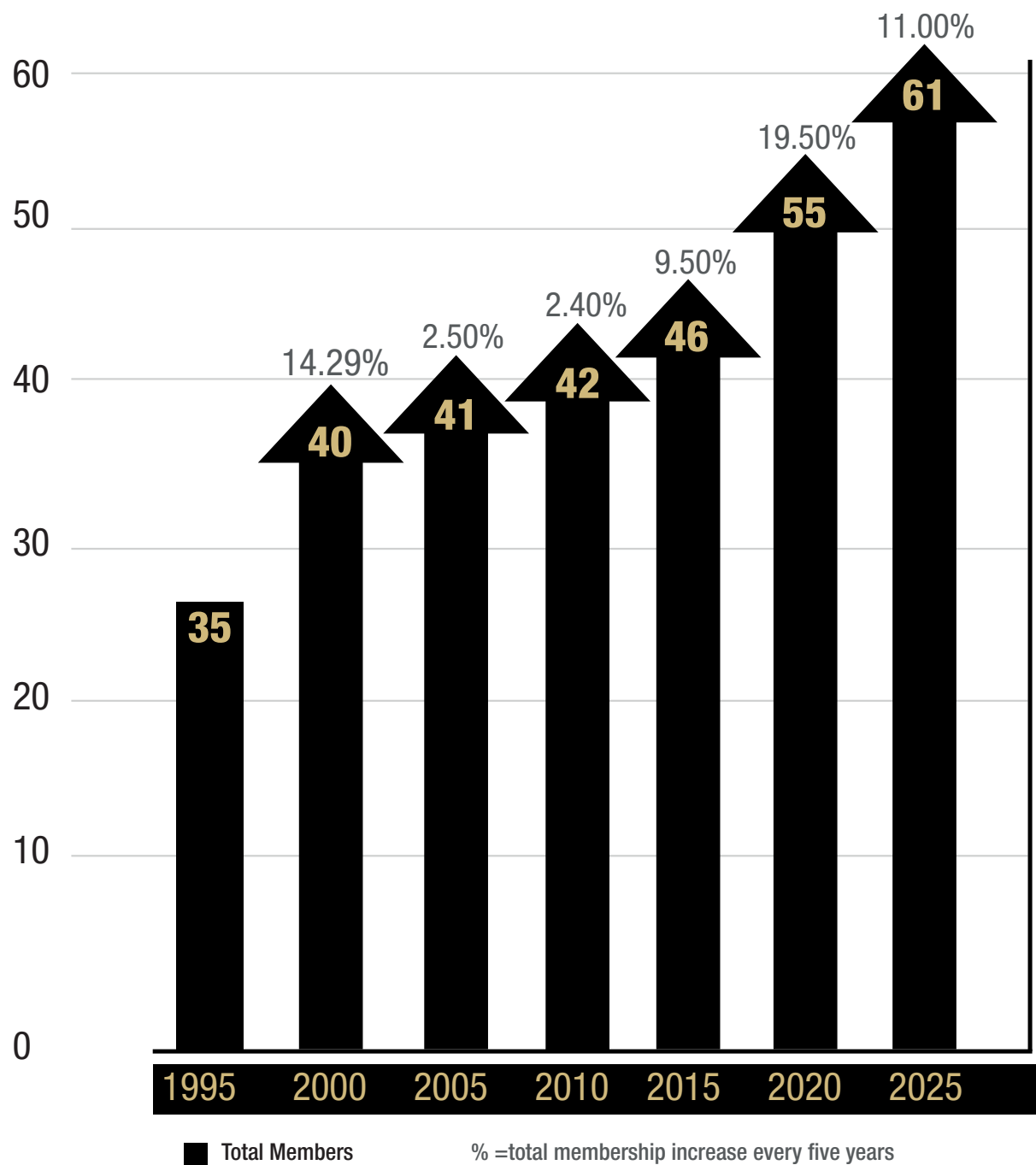
B2MR awardees, Emerging Scholars, MSTP students, PSTP trainees across the campus, StARR scholars, and TRSP scholars can take advantage of a variety of offerings through PAPSTR. In 2025, we provided educational opportunities for aspiring and accomplished physician-scientists focusing on key aspects of scientific career development, including career planning and transitions, science communication with the public, bench to industry, and team science.

ASCI/AAP REVIEW AND NOMINATIONS

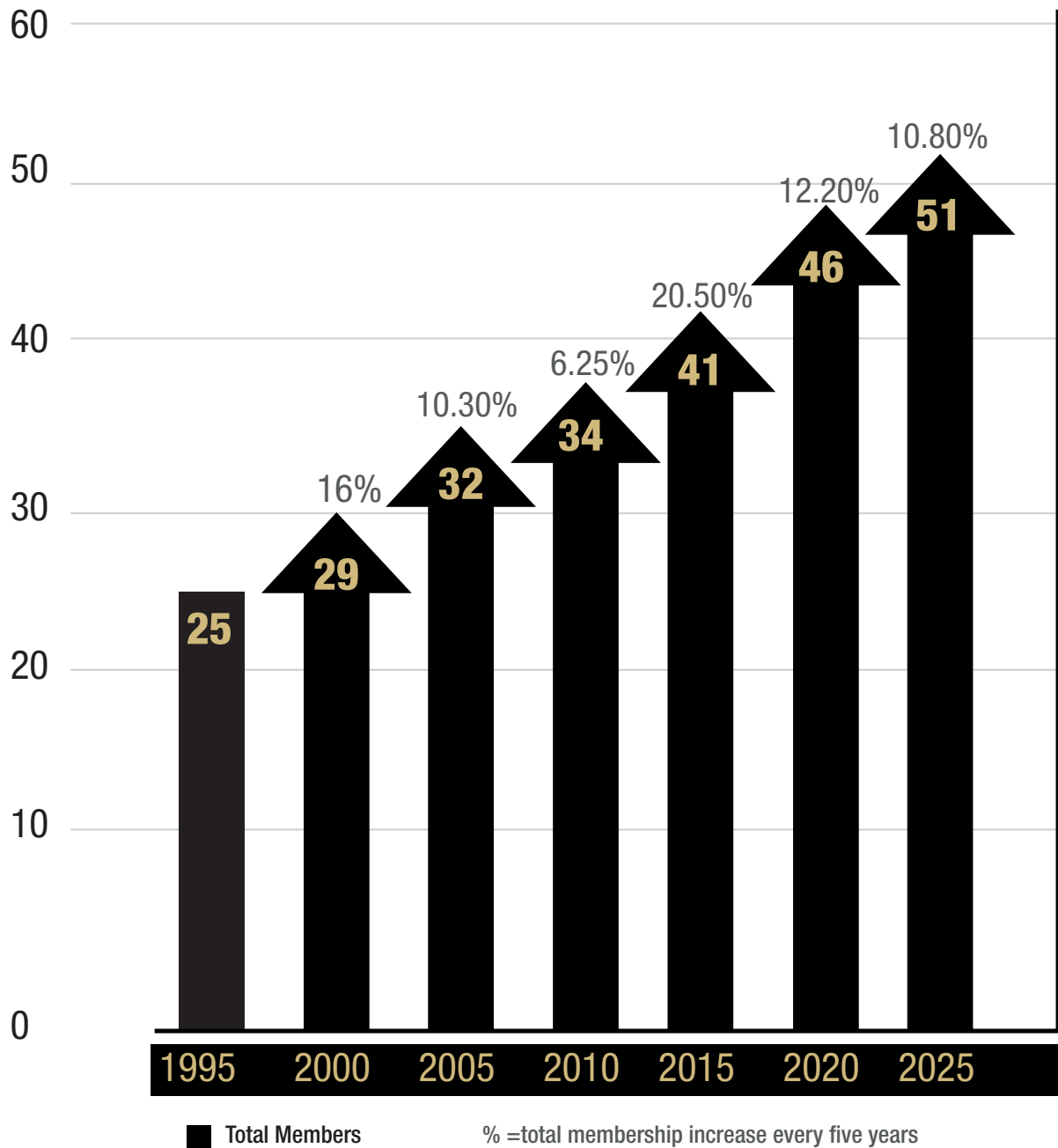
The American Society for Clinical Investigation (ASCI; <https://the-asci.org/>) and the Association of American Physicians (AAP; <http://aap-online.org/about-aap/>) are longstanding societies that honor the accomplishments of physician-scientists through nomination and election into each of their organizations. This process is highly competitive, and the number of ASCI and AAP members enhances the reputation of the medical center. During Dr. Schwartz's tenure as Chair of the Department of Medicine, the department supported a review and nomination process that doubled the membership of CU faculty in both the ASCI and AAP. In 2022, PAPSTR expanded this longstanding process from the Department of Medicine into a school-wide initiative. Each year, we now solicit potential nominations from departmental and divisional leadership, and we assemble a review panel of senior faculty to evaluate each nominee's potential for election to ASCI or AAP. We then facilitate the nomination process for candidates deemed to have a high potential for election, including advice and encouragement regarding submitting a comprehensive application. For the 2026 nominations, we supported the nomination of 7 faculty to ASCI and 6 faculty to AAP. In 2026, Drs. Joshua Barocas and Elena Hsieh were elected to the ASCI, and Drs. Terry Fry, Thomas Jannson, and Neill Epperson were elected to AAP.

The following figures reflect the increase in membership to both the AAP and ASCI.

CU ASCI MEMBERSHIP 1995-2026



CU AAP Membership 1995-2025



MEMBERS OF THE ASCI FROM CU (54):

Randall K. Holmes, MD, PhD, Professor Emeritus, Immunology and Microbiology, elected 1977
Richard B. Johnston, Jr., MD, Professor Emeritus, Pediatrics, elected 1977
Robert Mason, MD, Professor, Medicine-Pulmonary Sciences and Critical Care, National Jewish Health, elected 1979
John Weil, MD, Professor Emeritus, Medicine-Cardiology, elected 1979
Erwin Gelfand, MD, Professor Emeritus, Medicine-Allergy and Clinical Immunology, National Jewish Health, elected 1980
James Crapo, MD, Professor, Medicine-Pulmonary, Critical Care, and Sleep Medicine, National Jewish Health, elected 1981
Thomas Berl, MD, Professor Emeritus, Medicine-Renal Diseases/Hypertension, elected 1982
Charles Dinarello, MD, Distinguished Professor of Medicine-Infectious Disease, elected 1982
John E. Repine, MD, Professor, Medicine-CVP-Pulmonary, elected 1983
Robert J. Anderson, MD, Professor Emeritus, Medicine-Internal Medicine, elected 1984
Curt R. Freed, MD, Professor Emeritus, Medicine-Clinical Pharmacology/Toxicology, elected 1984
Paul Seligman, MD, Professor, Medicine-Hematology, elected 1984
Boris Draznin, MD, Professor, Medicine-Endocrinology, Metabolism, and Diabetes, elected 1986
Richard K. Albert, MD, Professor Emeritus, Medicine-Pulmonary Sciences and Critical Care, Denver Health Medical Center elected 1987
Robert Eckel, MD, PhD, Professor, Medicine-Endocrinology, elected 1988
Jonathan Samet, MD, Professor, School of Public Health, elected 1989
York E. Miller, MD, Professor, Medicine-Pulmonary, elected 1991
Fred Suchy, MD, Professor, Pediatrics-Gastroenterology, elected 1991
Arthur Gutierrez-Hartmann, MD, Professor Emeritus, Medicine-Endocrinology, elected 1993
V. Michael Holers, MD, Professor, Medicine-Rheumatology, elected 1993
Donald Leung, MD, PhD, Medicine-Allergy, elected 1993
Richard J. Johnson, MD, Professor Emeritus, Medicine, elected 1995
David A. Schwartz, MD, Distinguished Professor of Medicine and Immunology, elected 1995
Gregory Downey, MD, FRCPC, Professor, Medicine-Pulmonary, Critical Care, and Sleep Medicine, National Jewish Health, elected 1997
Rafeul Alam, MD, PhD, Professor, Medicine-Allergy and Clinical Immunology, National Jewish Health, elected 1997
Kenneth Tyler, MD, Neurology, elected 1997
Margaret E. Wierman, MD, Professor, Medicine-Endocrinology, elected 1997
Larry W. Moreland, Adm MD, Professor, Medicine-Rheumatology, elected 2000
Jane Reusch, MD, Professor, Medicine-Endocrinology, Metabolism, and Diabetes, elected 2002
Joshua M. Thurman, MD, Professor, Medicine-Renal, elected 2011
Patrick Hu, MD, PhD, Medicine-Oncology, elected 2011
Michael Wechsler, MD, Professor, Medicine-Pulmonary, elected 2012
Irina Petrache, MD, Professor, Medicine-Pulmonary, elected 2012
Frederick A. Masoudi, MD, Visiting Clinical Professor, Medicine-Cardiology, elected 2014
John Rumsfeld, MD, PhD, Professor, Medicine-Cardiology, elected 2014
Derek Abbot, MD, PhD, Professor, Immunology, elected 2016
Russ Bowler, MD, PhD, Professor, Medicine-Pulmonary Sciences and Critical Care-National Jewish Health, elected 2017
Terry J. Fry, MD, Professor, Pediatrics, elected 2017
John H. Sampson, MD, PhD, Professor, Neurosurgery, elected 2017
Robert C. Doebele, MD, PhD, Associate Professor, Medicine-Medical Oncology, elected 2018
Antonio Jimeno, MD, PhD, Professor, Medicine-Medical Oncology, elected 2018
Maryam M. Asgari, MD, MPH, Professor, Dermatology; Surgery, elected 2019
William Janssen, MD, Professor, Medicine-Pulmonary, elected 2019
Larry Allen, MD, MHS, Professor, Medicine-Cardiology, elected 2020
Richard Wang, Professor, Dermatology, elected 2020
Jennifer Taylor-Cousar, MD, Professor, Medicine-Pulmonary Sciences and Critical Care, National Jewish Health, elected 2020
Peter Fecci, MD, PhD, Professor, Neurosurgery, elected 2021

Kristen Jane Nadeau, MD, MS, Professor, Pediatrics-Endocrinology, elected 2021
Vineet Chopra, MBBS, MD, MSc, Professor, Medicine, elected 2022
Tim Lahm, MD, Professor, Medicine-Pulmonary, elected 2022
Magdalena Gorska, MD, PhD, Professor, Medicine Immunology and Clinical Immunology, National Jewish Health, elected 2023
Lilia Cervantes, MD, Professor, Medicine-Hospital Medicine, elected 2024
Joshua Barocas, Professor, Medicine-Infectious Diseases, elected 2026
Elena Hsieh, MD, Professor, Pediatrics-Allergy/Immunology, elected 2026

MEMBERS OF THE AAP FROM CU (34):

Philip Guzelian, MD, Clinical Professor, Medicine-Gastroenterology, elected 1987
John Weil, MD, Professor Emeritus, Medicine-Cardiology, elected 1989
Charles Dinarello, MD, Distinguished Professor of Medicine-Infectious Disease, elected 1990
Robert Mason, MD, Professor Emeritus, Pulmonary, Critical Care, and Sleep Medicine, National Jewish Health, elected 1991
Tomas Berl, MD, Professor Emeritus, Medicine-Renal, elected 1991
James Crapo, MD, Medicine-CVP-Pulmonary, elected 1993
Curt Freed, MD, Professor Emeritus, Medicine-Clinical Pharmacology/Toxicology, elected 1993
Boris Draznin, MD, Professor, Medicine-Endocrinology, elected 1995
Robert Eckel, MD, FAHA, FNLA, Professor Emeritus, Medicine-Endocrinology, elected 1997
Patricia Gabow, MD, Professor-Renal, elected 1994
Richard Johnson, MD, Professor Emeritus, Medicine-Renal, elected 1995
David A. Schwartz, MD, Distinguished Professor of Medicine and Immunology, elected 1999
V. Michael Holers, MD, Professor, Medicine-Rheumatology, elected 2000
Fred Suchy, MD, Professor, Pediatrics-Gastroenterology, elected 2002
Jane E.B. Reusch, MD, Medicine-Endocrinology, elected 2005
Kenneth Tyler, MD, Neurology, elected 2008
Peter Buttrick, MD, Medicine-Cardiology, elected 2009
Erwin Gelfand, MD, Professor, Pediatrics, National Jewish Health, elected 2011
Rafeul Alam, MD, PhD, Professor, Medicine-Allergy and Clinical Immunology, National Jewish Health, elected 2012
Gregory Downey, MD, Professor, Medicine-Pulmonary, Critical Care, and Sleep Medicine, National Jewish Health, elected 2012
Rubin Tuder, MD, Professor, Medicine-Pulmonary, elected 2012
Arthur Gutierrez-Hartmann, MD, Professor Emeritus, Medicine-Endocrinology, elected 2012
Bryan Haugen, MD, Professor, Medicine-Endocrinology, elected 2013
Marvin Schwarz, MD, Professor, Medicine-Pulmonary, elected 2013
Richard Johnson, MD, Professor Emeritus, Medicine-Renal Diseases/Hypertension, elected 2016
Eric Poeschla, MD, Professor, Medicine-Infectious Diseases, elected 2016
John Sampson, MD, PhD, Professor, Neurosurgery, elected 2018
Kurt Stenmark, MD, Distinguished Professor, Pediatrics-Critical Care Medicine, elected 2019
Marc Moss, MD, Distinguished Professor, Medicine-Pulmonary, elected 2020
Stephen Daniels, MD, Professor, Pediatrics, elected 2021
Irina Petrache, MD, Professor, Medicine-Pulmonary, elected 2021
Michael Wechsler, MD, Professor, Medicine-Pulmonary, elected 2022
Ronald Sokol, MD, Distinguished Professor, Pediatrics-Gastroenterology, Hepatology, and Nutrition, elected 2025
Neill Epperson, MD, Professor, Psychiatry, elected 2026
Terry Fry, MD, Professor, Pediatrics-Hematology/Oncology, elected 2026
Thomas Jansson, MD, Professor, OB/GYN, elected 2026

RESEARCH PROGRAMS

TRANSLATIONAL RESEARCH SCHOLARS PROGRAM (TRSP)

TRSP STATS:

6 New scholars awarded in June 2025

22 Current scholars

100 Over 100 publications in 2025

25 Over 25 grants funded in 2025

2025 28 LOIs from 10 departments, 6 awarded representing 5 SOM departments

Launched in 2021, the purpose of TRSP is to foster translational research among outstanding early career investigators in the School of Medicine. The primary goal of this program is to facilitate successful early career faculty in pursuing new lines of investigation and to elevate and expand the scope of their research in translational sciences. This program is intended to support our most promising early investigators who have already demonstrated a high level of achievement and substantially advance their careers in translational research. The program is directed by Dr. David Schwartz and co-directed by Dr. Sean Colgan.

Scholars must have a research program focused on translational research and must commit 75% of their effort to scholarly activities in translational research. TRSP provides each Scholar with \$75,000 annually for up to 4 years (research support only, no scholar salary allowed). The Scholars and program leadership meet monthly for 90 minutes as a group to discuss their research and career development. Each month, two scholars present their research and discuss their challenges in career development. They are advised by their peers and a group of senior scientists, including Drs. Schwartz and Colgan, as well as a number of other faculty.

In the fourth TRSP cycle in 2025, we made 6 awards that began in July 2025, bringing our total number of TRSP scholars to 22. We received 34 letters of intent and 28 applications from 11 departments for the 2026 cycle and expect to make up to 6 awards in 2026.

The awardees will be conducting translational research in a variety of fields.

Section

02



SCHOLAR SPOTLIGHT



TRSP Scholar Dr. Sujatha Jagannathan focuses on understanding the regulatory capacity of RNA, in particular the pathways by which RNA quality control can both drive and mitigate human disease. Her long-term research goal is to learn more about the breadth of factors that affect the mRNA quality control mechanism called nonsense-mediated RNA decay (NMD) across different genes, cell types, tissues, and individuals. She has made great strides since receiving her TRSP award in developing her lab's work into a cohesive research program, and she has shown herself to be an outstanding strategic thinker with tremendous success recruiting the right people to help drive her research to the next level.

Dr. Jagannathan's recent work has established an integrated precision medicine framework: dissecting NMD mechanisms, understanding consequences of NMD modulation, enabling clinical variant interpretation, and developing economically viable therapies. In addition to her TRSP funding, she currently has an NIGMS MIRA (R35) grant, an NINDS R01, and a recent NSF CAREER award. Her research program has

advanced understanding of NMD variability from fundamental mechanisms to clinical applications. Her termination kinetics model improves nonsense variant pathogenicity prediction; MAVE integration guidelines are being adopted by clinical genetics laboratories worldwide for VUS resolution; and her discovery of toxic truncated proteins kept in check by NMD has implications for optimizing readthrough and NMD inhibition therapies under development for cystic fibrosis, Duchenne muscular dystrophy, and spinal muscular atrophy¹¹. Her cryptic exon ASO platform represents a paradigm shift in rare disease therapeutics. These contributions have positioned Dr. Jagannathan's laboratory at the forefront of RNA biology and precision medicine, transforming therapeutic accessibility for rare genetic diseases.

ADDITIONAL HIGHLIGHTS

- Former scholar **Dan Pollyea, MD** received a Career Development Achievement Award from the Leukemia and Lymphoma Society
- **Debosmita Sardar, PhD**, and Justin O'Hare, PhD, Assistant Professors of Pharmacology, have received [Klingenstein Fellowships in Neuroscience](#), which support early career investigators in research that may lead to a better understanding of neurological and psychiatric disorders. Klingenstein Fellows receive \$150,000 per year for three years to support their work. Dr. Sardar's lab studies how glial cells and epigenetics play together to shape the sense of smell.
- In an article posted on [CU Dept. of Medicine's website](#), former OECSP scholar **Brian Graham, MD**, discussed how his training at CU, as well as role as associate residency program director of internal medicine, prepared him for his current role as Division Chief of Pulmonary and Critical Care Medicine at University of California/San Francisco/ How microglia's response to EV-D68 infection may underlie the age dependent window of vulnerability to EV-D68 induced paralytic disease [Zuckerberg San Francisco General Hospital](#).
- Anna Helena Jonsson, MD, PhD, Assistant Professor of Medicine, Division of Rheumatology, was accepted into the [2025 class of Boettcher Investigators](#) and will receive \$250,000 to support her work.
- **Current TRSP scholars Anna Helena Jonsson, MD, PhD**, Assistant Professor of Medicine, Division of Rheumatology; and **Ian Cartwright, PhD**, Assistant Professor of Medicine, Division of Gastroenterology, were recipients of the ['Rising Star'](#) award in the Department of Medicine. The award is given to early-career faculty members who exemplify the department's core values of excellence in patient care, research, education, and community service. Each year, Rising Stars are nominated by their division heads and selected by a committee consisting of the department's senior leadership (chair and vice chairs).
- **Yoni K. Ashar, PhD**, Assistant Professor of Medicine, is corresponding author of a [research letter](#), "Pain Reprocessing Therapy vs Placebo and Usual Care for Patients With Chronic Back Pain: 5-Year Follow-Up of a Randomized Clinical Trial," published July 30 by JAMA Psychiatry. Two co-authors are also from our campus.
- **Fan Zhang, PhD**, Assistant Professor of Medicine, is corresponding author of a [research article](#), "Deep immunophenotyping reveals circulating activated lymphocytes in individuals at risk for rheumatoid arthritis," published March 17 by The Journal of Clinical Investigation. Several co-authors are from our campus. An [article](#) in the Department of Medicine newsroom describes this study.

- **Maggie A. Stanislawski, PhD**, Assistant Professor of Biomedical Informatics, is corresponding author of an [article](#), "Relationships among host genetics, gut microbiota, and asthma in US Hispanic/Latino adults," published November 20 by Nature Communications. Six co-authors are from our campus and one is from CU Boulder.
 - **Former scholar Kristine A. Kuhn, MD, PhD**, Professor of Medicine, is corresponding author of a [review](#), "Microbial threads in the tapestry of rheumatoid arthritis," published September 16 by The Journal of Clinical Investigation. Jing Li, PhD, Research Associate of Medicine, is co-author.
 - **Former scholar Beth A. Jirón Tamburini, PhD**, Associate Professor of Medicine, is corresponding author of an [article](#), "A specific gene expression program underlies antigen archiving by lymphatic endothelial cells in mammalian lymph nodes," published September 25 by Nature Communications.
-

TRSP PROGRAM CO-DIRECTORS



SEAN COLGAN, PHD
Distinguished Professor of
Medicine/Gastroenterology



DAVID A. SCHWARTZ, MD
Distinguished Professor of
Medicine and Immunology
Associate Dean for Translational Sciences

2022 TRSP SCHOLARS



Shanlee Davis, MD, MSCS
Associate Professor
Department of Pediatrics
Identifying and targeting aberrant
metabolism in Klinefelter syndrome



Jasper Heinsbroek, PhD
Assistant Professor
Department of Anesthesiology
Optimizing Deep Brain Stimulation Treatment for
Opioid Use Disorder



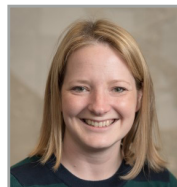
Sujatha Jagannathan, PhD
Assistant Professor
Department of Biochemistry and Molecular
Genetics Therapeutic target and biomarker
development for fascioscapulohumeral
muscular dystrophy



Hunter Moore, MD, PhD
Assistant Professor
Department of Surgery
Treatment of Extravascular Fibrin Deposition
in Macrosteatotic Livers to Narrow the Donor
Recipient Gap in Abdominal Transplantation



Erin Schenk, MD, PhD
Assistant Professor
Department of Medicine
Determining peripheral immune cell
populations as markers of treatment
response in oncogene driven lung cancer



Mia Smith, DVM, PhD
Assistant Professor
Department of Pediatrics
Immunophenotyping of blood and thyroid gland
in autoimmune thyroid disease patients

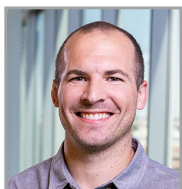
2023 TRSP SCHOLARS



Shaikh M. Atif, PhD
Assistant Professor
Department of Medicine
Role of *Aspergillus nidulans* in Sarcoidosis



Ian Cartwright, PhD
Assistant Professor
Department of Medicine
Dissecting neutrophil-derived mediators to promote inflammatory resolution



Seth Creasy, PhD
Associate Professor
Department of Medicine
Chrono-exercise: Time-dependent targets and mechanisms to optimize the effectiveness of exercise for treating metabolic diseases



Nathan A. Dahl, MD
Assistant Professor
Department of Medicine
Understanding delays in initiation of biologic therapies in inflammatory bowel disease (IBD)



Edward Lau, PhD
Assistant Professor
Department of Medicine
Developmental contributions of RBM20- mediated dilated cardiomyopathy



Fredrick Rosario-Joseph, PhD
Assistant Professor
Department of Obstetrics and Gynecology
Adiponectin and fetal islet β cell programming in maternal obesity



Fan Zhang, PhD
Assistant Professor
Department of Biomedical Informatics
Center for Health Artificial Intelligence
Using AI to elucidate novel pathogenic programs underlying chronic inflammatory diseases for precision medicine

2024 TRSP SCHOLARS



Yoni Ashar, PhD
Assistant Professor
Department of Medicine
developing brain biomarkers and new treatments for chronic pain



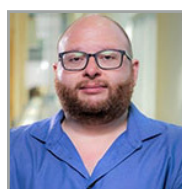
Martin Breuss, PhD
Assistant Professor
Department of Pediatrics



Joanne Cole, PhD
Assistant Professor
Department of Biomedical Informatics



Janani Ravi, PhD
Assistant Professor
Department of Biomedical Informatics



Ronald Vagnozzi PhD
Assistant Professor
Department of Medicine

2025 TRSP SCHOLARS



Maria Amaya, MD, PhD
Assistant Professor
Department of Medicine,
Division of Hematology



Debosmita (Debo) Sardar, PhD
Assistant Professor
Department of Pharmacology



Noah Johnson, PhD
Assistant Professor
Department of Neurology



Maggie Stanislawski, PhD
Assistant Professor
Department of Biomedical Informatics



Anna Helena Jonsson, MD, PhD
Assistant Professor
Department of Medicine, Division of
Rheumatology



Richard Tobin, PhD
Assistant Professor
Department of Surgery, Division of Surgical Oncology
University of Colorado Anschutz Medical Campus

ASPIRE PROGRAM: ANSCHUTZ PROGRAMMATIC INCUBATOR FOR RESEARCH

ASPIRE STATS:



4

4 new teams
awarded in June
2025



15

15 teams awarded
total since program
inception



80

80 investigators total
from 14 departments
in the SOM



4

4 programmatic
research proposals
submitted



3

3 programmatic
research proposals
scored



SEVERAL

programmatic
research proposals in
preparation

The ASPIRE Program was launched in 2022 with Dr. David Schwartz as director and Dr. Lori Sussel as co-director. The goal of the ASPIRE Program is to increase submission and success of program project, center grants, and large multi-investigator programs by supporting milestone-driven collaborations between investigators across campus. ASPIRE is designed to facilitate collaborative research groups working on unmet needs in basic science or clinical medicine that can only be addressed by a team of investigators. The program funds teams of 3-5 investigators with complementary expertise, providing up to \$100K/year for up to 2 years to be used for research support to generate collaborative preliminary data for an NIH P01 (program-project grant) or other types of programmatic research.

During the fourth cycle of the ASPIRE program in 2025, we made awards to 3 teams in July 2025 (led by Drs. Bruce Appel, Benjamin Bittler, and Rytis Prekeris), including investigators from 5 departments in the SOM, along with 1 from the School of Public Health, 1 from CU Boulder, and 3 from the University of New Mexico Cancer Center. Applications were evaluated by a panel of senior faculty from across the SOM in an NIH-style peer review and study section. Each research group meets at least quarterly with selected members of PAPSTR (Drs. Schwartz, Sussel, and Kemp) and other colleagues with expertise in programmatic research to discuss their progress and next steps.

Given that the submission rate of programmatic research proposals on campus has been low in the past, the proposals in the pipeline from the ASPIRE program promise to raise our chances significantly of adding more NIH-funded programmatic research on campus in the next few years. However, as the NIH shifts its priorities we are considering shifting the goals of the ASPIRE Program to team science.

The ASPIRE Program has garnered considerable excitement on campus, and we are pleased that the Cancer Center has once again decided to partner with PAPSTR for the 2026 grant cycle. These partnerships have allowed us to expand the scope, number of programs, and impact of ASPIRE across the entire Anschutz Medical Campus. In 2026, we anticipate funding at least 2 research programs.



LAURA BUCCINI
DRPH, MPH, MPA
 Assistant Vice Chancellor
 for Research
 Development
 and Strategy Anschutz
 Medical Campus



DAVID A. SCHWARTZ
MD
 Co -Director
 Distinguished Professor of
 Medicine and Immunology
 Associate Dean for
 Translational Sciences



LORI SUSSEl, PhD
 Co-Director
 Assistant Vice Chancellor
 for Basic Science Research,
 Professor of Pediatrics and Cell
 & Developmental Biology, Sissel
 and Findlow Stem Cell Chair

TEAM SPOTLIGHT



Team Spotlight: Traci Lyons' ASPIRE team received a competitive score on their PO1 submission to the National Cancer Institute (NCI) on Breast Cancer Co-ops physiologic mechanisms of immunosuppression. Dr. Lyons and team are preparing to resubmit this proposal later in 2026. Team members include: Traci Lyons, PhD, Associate Professor, Department of Medicine, Division of Medical Oncology; Virginia Borges, MD, Professor, Department of Medicine, Division of Medical Oncology; Jennifer Richer, PhD, Professor, Department of Pathology; Jill Slansky, PhD, Professor, Department of Immunology and Microbiology; and Weston Porter, PhD, Professor, Department of Veterinary Physiology and Pharmacology Texas A&M University.

ADDITIONAL HIGHLIGHTS

- **Neelanjan Mukherjee, PhD**, Assistant Professor of Biochemistry and Molecular Genetics Assistant Professor of Biochemistry and Molecular Genetics, **Heide L. Ford, PhD**, Chair of Pharmacology, and **Rui Zhao, PhD**, Professor of Biochemistry and Molecular Genetics, are corresponding authors of an [article](#), "eIF3d and eIF3e mediate selective translational control of hypoxia that can be inhibited by small molecules," published December 23 by Cell Reports. Twelve co-authors are from our campus and three are from CU Boulder.
- **Ford ASPIRE team member James DeGregori, PhD**, Professor of Biochemistry and Molecular Genetics and Deputy Director of the CU Cancer Center, is featured in an [article](#) posted August 19 by the National Institutes of Health that describes his research team's study of how respiratory viruses may trigger dormant cancers. The [study](#) appeared in Nature on July 30.
- **Bitler ASPIRE team member Bradley R. Corr, MD**, Associate Professor of Obstetrics and Gynecology, is corresponding author of a [clinical review](#), "Advances in the management of endometrial cancer," published March 5 by The BMJ. The review describes advances in understanding and treating endometrial cancer with a focus on people at risk, molecular classification, and modern therapeutic strategies.
- **Tamburini ASPIRE team member Jay Hesselberth, PhD**, Professor of Biochemistry and Molecular Genetics, and **Laura White, PhD**, Instructor of Biochemistry and Molecular Genetics, are corresponding authors of a [research article](#), "Nanopore sequencing of intact aminoacylated tRNAs," published August 20 in Nature Communications. Four co-authors are from our campus.

FORD TEAM



Heide Ford, PhD
Professor and Chair,
Department of
Pharmacology



Diana Cittelly, MD
Associate Professor
Division of Pathology



James Costello, PhD
Associate Professor
Department of
Pharmacology



James DeGregori, PhD
Professor
Department of
Biochemistry
and Molecular Genetics



Michael Lewis, PhD
Professor, Department
of Molecular and Cellular
Biology, Baylor College
of Medicine



Neelanjan Mukherjee, PhD
Assistant Professor
Department of
Biochemistry and
Molecular Genetics



Mercedes Rincon, PhD
Professor
Department of Immunology
and Microbiology

Transcriptional and mRNA Translational Control in the Adaptation of Breast Cancer Cells to Microenvironmental Stressors during Metastasis

Virtually all breast cancer associated deaths occur due to metastasis. During this multi-step process, the surviving cancer cells must rapidly adapt to many stressors, including hypoxia, inflammation, immune surveillance, chemotherapy, and viral infection. Many studies have shown that genetic alterations do not play a dominant role in metastasis. Instead, epigenetic/transcriptional changes have emerged as key means by which tumor cells rapidly respond to stressors as they metastasize. A less studied means for tumor cell adaptation is mRNA translation. In this program project grant we explore how stress-induced mRNA translation regulates the ability of tumor cells to adapt to various microenvironmental stressors. Our P01 leverages three different projects, with three unique stressors, to test the overarching hypothesis that specialized mRNA translation in response to microenvironmental stressors drives cancer cell adaptation and survival, resulting in metastasis. Identifying novel, shared mechanisms of tumor cell adaptation in response to different stressors may enable us to uncover specific means to target breast cancer metastasis.

PERSON TEAM



Abigail Person, PhD
Professor
Department of Physiology
and Biophysics



Jason Christie, PhD
Professor
Department of Physiology
and Biophysics



David DiGregorio, PhD
Professor and Chair
Department of Physiology
and Biophysics



Daniel Kramer, MD
Assistant Professor
Department of
Neurosurgery

Neural Mechanisms of Time Estimation

Dr. Person's team plans a multidisciplinary collaborative project aimed at synergizing research across basic and clinical sciences. We aim to solve fundamental basic science questions about how the brain predicts future events to adaptively structure behavior. Insights from these studies will be leveraged to prototype a neurocomputational prosthetic for motor disorders. This program project synergizes the unique expertise – methodological and intellectual – of multiple investigators, whose independent research programs specialize in distinct aspects of cerebellar neurophysiology. Outcomes will culminate in mechanistic understanding of how neural circuits compute predictive computations usable to guide neurosurgical treatments. Next generation therapies for neurological diseases and stroke will utilize basic insights into the computations built by neural circuits. This project directly strives at this goal to identify how specific computations are built by the cerebellum and attempt to replace them in a disease model of ataxia.

SANTIAGO TEAM



Mario L. Santiago, PhD

Associate Professor
Division of Infectious Diseases,
Department of Medicine



Peter Anderson, PharmD

Professor
Skaggs School
of Pharmacy and
Pharmaceutical Sciences



Stephanie Dillon, PhD

Associate Research
Professor, Division of
Infectious Diseases,
Department of Medicine



Kristine Erlandson, MD

Associate Professor
Division of Infectious Diseases,
Department of Medicine



Katarina Kechris, PhD

Professor
Department of Biostatistics
and Informatics



Cara Wilson, MD

Professor, Division of
Infectious Diseases,
Department of Medicine



Kejun Guo, PhD

Assistant Research Professor
Division of Infectious Diseases,
Department of Medicine

HIV-1 Persistence in the Gastrointestinal Tract

An HIV-1 cure is a global health priority but remains elusive as persistent virus readily rebounds following interruption of antiretroviral therapy (ART). Data from our collaborative studies suggest that the gut may be a critical site harboring the HIV-1 reservoir. In contrast to peripheral blood and lymph nodes that are the focus of most HIV-1 latency studies, the gut is an important driver of chronic inflammation that does not resolve with ART. Specifically, gut barrier dysfunction results in bacterial translocation that triggers rampant immune activation. We assembled a highly interactive team to address the virological, immunological, and pharmacological attributes of HIV-1 persistence in the gut in the context of inflammation. Specifically, we will determine the contribution of cytotoxic CD4 T cells as a reservoir, the role of antiviral interferons in shaping HIV-1 persistence, and the role of inflammation in drug bioavailability in the era of long-acting injectables. These questions will be explored in the setting of obesity, a common comorbid condition associated with gut barrier dysfunction. As the gut contains vast numbers of CD4 T cells in the human body, addressing key questions on the nature of HIV-1 persistence in this compartment could advance novel HIV-1 cure strategies.

TOLLIN TEAM



Daniel Tollin, PhD
Professor
Department of Physiology
and Biophysics



Yuri Agrawal, MD
Professor and Chair
Department of
Otolaryngology-Head
and Neck Surgery



Achim Klug, PhD
Professor
Department of
Physiology and
Biophysics



Katie Rennie, PhD
Professor
Department of
Otolaryngology-
Head and Neck
Surgery

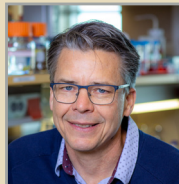


Anthony Peng, PhD
Associate Professor,
Department of
Physiology and
Biophysics

Synaptopathy as a common etiology underlying hearing and balance disorders with aging

The inner ear contains the cochlea and vestibular system which enable hearing and balance sensation, respectively. Age-related decline in hearing function is highly prevalent, affecting > 30-50% of people over 60. Balance function also declines with age and falls are the leading cause of death and injury in adults over 65. Recent work suggests a connection between noise-induced hearing loss and vestibular dysfunction. Specifically, even mild hearing loss more than triples falling risk, and risk compounds with increased age. Understanding cellular mechanisms and commonalities between the cochlea and vestibular system is crucial to drive inner ear therapies for alleviating hearing and vestibular dysfunction. Mechanisms underlying dysfunction are unclear but likely include loss of synapses between sensory hair cells and their afferent terminals, called synaptopathy, in addition to CNS changes. We will investigate whether “endotypes” of auditory and vestibular loss co-occur in aged gerbils characterized by peripheral and/or central dysfunction. In humans we will test whether auditory and vestibular physiologic tests suggest endotypes of peripheral and/or central loss in older adults. Additionally, we will examine common harmful environmental exposures such as noise and ototoxic medications, and investigate the extent to which aging resembles the patterns of dysfunction that result from these exposures.

APPEL TEAM



Bruce Appel, PhD
Diane G. Wallach Chair of Pediatric Stem Cell Biology
Professor and Head, Section of Developmental
Biology, Department of Pediatrics



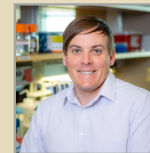
Santos Franco, PhD
Associate Professor of
Pediatrics, Section of
Developmental Biology
Boettcher Investigator
University of Colorado
School of Medicine



Wendy Macklin, MS, PhD
Distinguished Professor
and Chair, Department
of Cell and
Developmental Biology



Ethan G. Hughes, PhD
Associate Professor
Cell and Developmental Biology
Boettcher Investigator
University of Colorado School
of Medicine



Caleb Doll, PhD
Assistant Research
Professor
Department of
Pediatrics, Section of
Developmental Biology

Molecular Mechanisms of Activity-Regulated Myelination

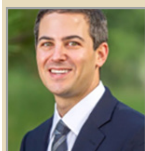
Human brain function requires that neuronal axons are ensheathed by myelin, a specialized, lipid-rich membrane produced by oligodendrocytes, one of the principal glial cell types of the central nervous system. Myelin, the white matter of the brain, insulates axons, improving electrical impulse conduction and enhancing cognitive and motor functions. Importantly, white matter abnormalities are commonly associated with many neurodevelopmental disorders, including autism spectrum disorder (ASD) and schizophrenia. Groundbreaking work from our labs using animal models has shown that neuronal activity influences myelination in development and adulthood. Based on this evidence, we hypothesize that neuronal activity signals a need for myelination by regulating oligodendrocyte gene expression. The three projects of our research program are designed to identify these activity-regulated genes using zebrafish and mouse models. Because abnormal neural circuit activity is characteristic of ASD and schizophrenia, we predict that the genes we discover will significantly advance our understanding of associated white matter deficits, thereby opening new pathways of therapeutic development.

BITLER TEAM



Dr. Benjamin Bitler, PhD

Associate Professor, Department of OB-GYN,
Division of Reproductive Sciences



Bradley Corr, MD

Associate Professor, Department of OB-GYN,
Division of Gynecologic Oncology
Director of Clinical Research for the Division



Matthew Sikora, PhD

Associate Professor of Pathology



Jennifer Richer, PhD

Professor with tenure Department
of Pathology
Graduate School Dean, CU Anschutz
Medical Campus



Miria Kano, PhD

Associate Professor of Community & Behavioral
Health, Colorado School of Public Health,
Anschutz Medical Campus
Associate Director, the Office of Engagement,
Access and Success, University of Colorado
Cancer Center



Aaron Clauset, PhD

Professor, Department of Computer
Science and BioFrontiers Institute,
University of Colorado Boulder



Sarah Adams, MD

Professor of Gynecologic Oncology, The University of
New Mexico Cancer Center Co-Founder and -
Director, SGO/GOG-F BRIDGES Research Initiative
Dean, Department of Defense Ovarian Cancer Clinical
Trials Academy



Rita Serda, PhD

Associate Professor, Internal Medicine,
Molecular Medicine, University of New
Mexico Comprehensive Cancer Center



Stephanie Rieder, MD PhD

Assistant Professor, Division of Gynecologic
Oncology, University of New Mexico
Comprehensive Cancer Center

Translation of Novel Therapies to Improve Outcomes for Individuals with Ovarian Cancer

The Universities of Colorado and New Mexico are uniquely positioned to develop a multi-institutional SPORE (Specialized Programs of Research Excellence) application to improve outcomes for individuals with ovarian cancer. The Gynecologic Oncology Divisions at both institutions collectively represent the largest physician-scientist practices in the field. We aim to fill a critical gap in ovarian cancer research, both in basic science and clinical care.

This SPORE will focus on independent research projects alongside a population science project. The therapeutic options for patients with ovarian cancer are severely lacking, with the FDA approval of only three new treatment modalities since 2014. For the SPORE, we propose three research projects that explore novel treatment modalities beyond traditional approaches, including epigenetic, metabolic, and immune therapies. Also, the population science team, which has a collaboration track record and are experts in gynecologic cancers, will make a unique contribution—there are currently no ovarian cancer SPOREs that include a population science project.

The APSIRE award will support the development of these projects, facilitate the integration of proposed cores, and help identify barriers to clinical trial enrollment, advancing the overall effort to improve ovarian cancer outcomes.

PREKERIS TEAM



Rytis Prekeris, PhD

Professor, Director of Molecular Biology
Graduate program Department of Cell and
Developmental Biology



Michael McMurray, PhD

Associate Professor, Department of Cell and
Developmental Biology



Jeff Moore, PhD

Associate Professor, Department of Cell and
Developmental Biology
Dean, Department of Defense Ovarian Cancer Clinical
Trials Academy



Chad G. Pearson, PhD

Professor, Vice Chair, Department of Cell
and Developmental Biology



Matthew Taliaferro, PhD

Assistant Professor, Department of Biochemistry
and Molecular Genetics

Molecular Mechanisms Regulating Cell Division and Genomic Stability in Cancer Cells

Aberrant chromosome segregation and increased genomic instability are recognized as key drivers in tumorigenesis. Defining the mechanisms that promote accurate chromosome segregation is therefore fundamental to understand the origins of cancer and developing new treatments. This program project focuses on defining the defective molecular machineries that cause mis-segregation of chromosomes and chromosome fragmentation during cell division in cancer cells. The project builds on existing collaborations between the Principal Investigator and Project Lead investigators to dissect the mechanistic defects impacting centrosome duplication, bipolar mitotic spindle formation, and the regulation of the abscission checkpoint during cancer cell division. The project will also study how defects in all these processes promote and sustain tumorigenesis.

Section 03



CHALLENGES AND OPPORTUNITIES

To continue evaluating our programs, we conducted a survey in late 2025 of the awardees from all our programs. We received 35 responses. Overall, the feedback was largely positive, and we also received thoughtful and constructive feedback suggesting possible areas for future growth and improvement of these programs.

ASPIRE teams: 'The ASPIRE Program leadership has been exceptional in its guidance, as none of our team has any experience with Program Projects. They were instrumental in getting us to focus on mechanisms, which is now making for a much more impactful proposal.'; 'It helped to enhance scientific interactions between all 5 project PIs.'; 'The impact of the ASPIRE grant on our team has collectively been great. Bridging three disparate research groups has helped all of us think very differently, in a positive way, about the problem we are addressing.'

TRSP scholars: 'This award was instrumental to my career development, as it provided critical support for maintaining my laboratory and enabled the pursuit of innovative ideas that could not have been realized without this award'. 'This award has had a substantial impact on the direction, scope, and pace of my research program. The award has also played a critical role in shaping a sustainable and impactful research trajectory with long-term relevance to precision medicine.' '... this award will enhance my path toward securing sustained independent funding by supporting the development of R01-level grant applications, fostering interdisciplinary collaborations, and improving the rigor and scope of my experimental methods.'

StARR scholars: 'My StARR experience has allowed time for career mentorship and networking while attending national meetings'; '...the monthly mentoring meetings at Dr. Schwartz's home provided a valuable sense of community.'; 'StARR has helped me to improve my standing and experience towards becoming a physician scientist.'; 'Thank you all for having this grant to support people like myself develop skills to lead me to the career I want!'.

Emerging Scholars: 'Being part of the program further confirmed my passion for becoming a neurosurgeon-scientist, integrating research and clinical practice.'; 'encouraged me to want to keep research as part of my professional life.'

B2MR scholars: 'Being apart of the B2MR program has granted me the phenomenal opportunity to strengthen my research experience, give back to the community, and refine my skills and application for MD/PhD and MD program.'; 'being a part of this program has allowed me to solidify my career path in research on child/adolescent psychiatry.'

AREAS FOR GROWTH AND IMPROVEMENT:

- ASPIRE teams mentioned that an increase in the amount of funding for the award would be beneficial as it is hard for a team composed of 6-8 investigators to get their projects off the ground.
- TRSP awardees would like to have even more opportunities for collaboration with other investigators and more events where they can interact with each other outside of their labs.
- Emerging scholars indicated that it would be helpful to have a mentor in the program, i.e., an MD, PhD, or previous student, outside of their lab.
- B2MR scholars would like more community involvement and networking opportunities with other post-baccalaureate students or early research trainees.

STANDARDIZED INSTITUTIONAL INITIATIVE FOR PROGRAMMATIC RESEARCH

While granting organizations provide fundamental support for the research program, research programs are in need of additional support from our institution. This additional support not only creates a competitive advantage for the application, this additional support allows research programs to meet unmet financial needs which are often capped budgetarily, supports investigators in the program to explore new areas of research and take on trainees, and provides support for shared equipment. In other words, institutional support helps to build and develop programs and make them more competitive for future funding. Moreover, it provides an incentive for faculty to apply for programmatic research.

Currently, PIs pursuing programmatic research negotiate one-off agreements with Department Chairs, Center Directors, and the SOM Dean to support their research program if they succeed in obtaining funding. PAPSTR is working to initiate a campus-wide program to establish a consistent approach to institutional programmatic support that would be tied to indirect funds generated by each of the research programs. PAPSTR has initiated these discussions and will continue to pursue this goal.

EXPOSURE OF TRAINEES TO PHYSICIAN-SCIENTISTS

While granting organizations provide fundamental support for the research program, research programs are in need of additional support from our institution. This additional support not only creates a competitive advantage for the application, this additional support allows research programs to meet unmet financial needs which are often capped budgetarily, supports investigators in the program to explore new areas of research and take on trainees, and provides support for shared equipment. In other words, institutional support helps to build and develop programs and make them more competitive for future funding. Moreover, it provides an incentive for faculty to apply for programmatic research.

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ADDITIONAL INTEGRATION BETWEEN THE CLINICAL AND BASIC SCIENCES

To excel in translational sciences, physician-scientists need to work collaboratively with basic scientists. These collaborations will lead to more impactful science and ultimately improve the health of many of the patients we serve. To achieve this goal, we need to consider mechanisms to integrate the trainees and young faculty across campus. This can occur through co-mentorship, connecting PhD trainees with MD trainees, developing discussion groups that focus on career mentorship, integrating our disparate training programs across campus, and establishing mechanisms to stimulate team science.

ESTABLISH CU AS A CENTER OF EXCELLENCE FOR PHYSICIAN-SCIENTISTS

To excel in translational sciences, physician-scientists need to work collaboratively with basic scientists. These collaborations will lead to more impactful science and ultimately improve the health of many of the patients we serve. To achieve this goal, we need to consider mechanisms to integrate the trainees and young faculty across campus. This can occur through co-mentorship, connecting PhD trainees with MD trainees, developing discussion groups that focus on career mentorship, integrating our disparate training programs across campus, and establishing mechanisms to stimulate team science.

ESTABLISH SUSTAINABLE SUPPORT THROUGH PHILANTHROPIC FUNDING

Supporting the development of translational research and supporting the career development of physician-scientists is an attractive opportunity, especially given the impact of physician-scientists on understanding human health and disease, the limited available federal funds, and the dwindling number of physician-scientists. PAPSTR would like to initiate conversations with the CU Foundation to establish an enduring stream of support for the career development of physician-scientists.

SECTION IV

FINANCIAL OVERVIEW

PAPSTR is supported primarily by School of Medicine funds, and we are grateful for several partners who provide additional funding for select programs (Departments of Medicine, Pediatrics, and Surgery for the StARR Program, NHLBI – StARR program, and Cancer Center – ASPIRE).

Section

04



APPENDIX A

B2MR: 1-2 YEAR POST-BACCALAUREATE PROGRAM PRIOR TO MD OR MD/PHD

Trainee	Years Funded	Summary of Support During Training	Terminal Degree(s) Received and Year(s)	Topic of Research Project/Research Interests	Current Position
Ariel Alexander	6/1/2024 5/31/2026	Salary of approximately \$35,000, plus an additional \$5,000 to pay for health, dental, and vision benefits; up to \$2k/year for travel expenses to attend or present at a scientific conference	BS, 2024, Carlton College	Epidemiology, health disparities research, and utilizing mixed methods to address human health and wellness issues in underrepresented population	B2MR scholar, working with Dr. Nicole Tuitt, Assistant Professor, Centers for American Indian & Alaska Native Health Department of Community and Behavioral Health
Sola Adeyiga	6/1/2025 5/31/2027	Salary of approximately \$35,000, plus an additional \$5,000 to pay for health, dental, and vision benefits; up to \$2k/year for travel expenses to attend or present at a scientific conference	BS, 2025, University of Illinois	Neuroimaging research, mental health disparities in psychiatry, and addressing systemic inequities in diagnosis and treatment for marginalized populations	B2MR scholar, working in the Emotion and Development Laboratory which studies the neurocognitive basis of emotional disorders in children, adolescents, and young adults.

EMERGING SCHOLARS: 1 YEAR OF RESEARCH FOR MEDICAL STUDENTS

Trainee	Years Funded	Terminal Degree(s) Received and Year(s)	Topic of Research Project	Current Position	Publications
Caitlin Blades	1/9/2023	MD, May 2026	The role of the immune system in the pathophysiology of keloid scars	4th year medical student	7
Shaquia Idelett-Ali	7/1/2023	PhD: Biomedical Engineering MD, May 2025	Targeting nerve-mediated immunosuppression in the tumor microenvironment of head and neck squamous cell carcinoma	Completing preliminary year as internal medicine resident in 2025 before starting radiation oncology residency at CU in July 2026.	10
Gordon Matthewson	7/1/2023	MD, May 2025	Examining discrepancies between memory care patients and their caregivers, and how these relate to clinical trajectories	Dartmouth Hitchcock Medical Center, Neurology PGY1 resident	2
Anna Ha	1/1/2024	MD, 2026	Investigation of social determinants of health that contribute to solid allograft utilization including liver, kidney, pancreas, heart and lungs. Novel perfusion technologies that aim to expand donor allografts.	MS4, matched with General Surgery, Carolinas Medical Center, NC	9
Priya Wolff	7/1/2024	MD, 2026	Provide primary care clinicians with non-invasive tools for the accurate assessment of skin lesions	MS4, matched with Dermatology, University of Texas Medical Branch-Galveston	
Maksym Goryachock	7/1/2024	MD, 2026	Understanding of host-commensal-pathogen interactions in a cell model of cystic fibrosis	MS4, matched with Internal Medicine, Stanford Health Care-CA	
Aditya Kumar	6/1/2025	MD Pending	Analyzing neural synchrony in patients performing cognitive tasks, using measures such as phase-locking value (PLV) and theta coherence	3rd/4th year medical student	
Yan Zhou	6/1/2025	MD Pending	Investigate the biological mechanisms of radiation and drug responses of adamantinomatous craniopharyngioma (ACP), with a focus on the tumor microenvironment	3rd/4th year medical student	

STARR SCHOLARS: NHLBI SUPPORTED PROGRAM FOR HOUSESTAFF IN MEDICINE, PEDIATRICS, AND SURGERY TO HAVE 80% PROTECTED RESEARCH TIME FOR 1-2 YEARS

Trainee	Doctoral Degree(s) and Year(s)	Years Funded	Topic of Research Project	Position at Initiation of Program	Current Position	Publications
Jayne Pangilinan	MD	2020 - 2021	Characterize the inflammatory response in acute respiratory distress syndrome (ARDS) within the air spaces of critically ill patients with COVID-19	CU Internal Medicine Resident	CU medical oncology 2nd year fellow	5
Elizabeth McGinn	MD	2022 - 2023	Antenatal endotoxin impairment of lung growth and function in infant rats	CU Pediatrics Resident	CU Pediatric Critical Care Medicine Fellow	10
August Longino	MD	2022 - 2023	Understanding the role of the microvasculature in patients with septic shock	CU Internal Medicine Resident	Physician Scientist, Denver Health	20
Alexander Hellman	MD	2022 - 2023	Characterize statin initiation and LDL reduction in the early period following diabetes diagnosis in patients receiving care from the Veterans Affairs (VA) system	CU Internal Medicine Resident	University of Minnesota, cardiology fellow	4
Natalie Longino	MD	2022 - 2024	Study of decidual Natural Killer cells to determine whether melanoma tumors are employing this unique cell type to create an immune tolerant environment similar to the immune microenvironment found in the pregnant uterus	CU Internal Medicine Resident	CU medical oncology 2nd year fellow	17
Isabel Hardee	MD	2023 - 2024	Characterize pediatric patients presenting to the emergency department with undifferentiated wheeze using transcriptome modeling	CU Pediatrics Resident	Boston Children's Hospital, pediatric emergency medicine, 2nd year fellow	8
Lindsay Thomson	MD	2023 - 2024	Describe the circulating proteome as it relates to neurologic and renal injury in patients with congenital heart disease who require extracorporeal membrane oxygenation (ECMO) and to establish a pediatric ECMO model	CU Pediatrics Resident	Boston Children's Hospital, pediatric cardiology fellowship program, 2nd year categorical fellow	13
Kaitlyn McLeod	MD	2023 - 2024	Cardiology clinical trials and outcomes	CU Internal Medicine Resident	Cardiology disease 2nd year fellow, University of Michigan	4
Katarina Leyba	MD	2023 - 2024	Heart failure subpopulations and phenotyping	CU Internal Medicine Resident	UT Southwestern, Internal Medicine, 1st year fellow	2
Jack Zakrzewski	MD	2023 - 2025	A murine heart transplant model to study therapeutic potential of SP1 delivery to donor hearts	CU Surgery Resident	CU Surgery Resident, PGY3	14
Ryen Ormesher	MD	2024 - 2025	Biomarkers in COPD predisposing to pulmonary hypertension.	CU Internal Medicine Resident	CU Internal Medicine Resident, R3	5
Shravya Pothula	MD	2024 - 2025	Identify key networks and pairings between the murine and analogous human samples through meta-genomics	CU Internal Medicine Resident	CU Internal Medicine Resident, R3	7
Kellen Gil	MD	2024 - 2026	The STAT3-VDAC1 Axis Modulates Mitochondrial Function and Plays a Critical Role in the Survival of Leukemic Stem Cells.	CU Internal Medicine Resident	CU Internal Medicine Resident, R3	6
Caitlin Eason	MD	2024 - 2026	Effect of miRNAs and Evs on angiogenesis	CU Surgery Research Resident	CU Surgery Research Resident	9
Bo Chang "Brian" Wu	MD	2024 - 2026	Protective role of mitochondrial transplantation in an in vivo murine middle cerebral artery occlusion stroke model.	CU Surgery Research Resident	CU Surgery Research Resident	8
Sadie Meller	MD	2025 - 2026	examine how microglia, which are spinal cord resident immune cells, respond to Enterovirus D68 (EV-D68) infection and may drive the progression of acute flaccid myelitis (AFM)	CU Pediatrics Resident	CU Pediatrics Resident, PI2	2
Lauren Maloney	MD	2025 - 2026	Age-specific differences in the immune response to obstructive cholestasis	CU Pediatrics Resident	CU Pediatrics Resident, PL3	13
Jay Breithaupt	MD	2025 - 2026	Modeling ischemia reperfusion injury (IRI) and chronic hypoxia in tissue engineered myocardium made from cardiomyocytes derived from hypoplastic left heart syndrome (HLHS) patient induced pluripotent stem cells	CU Surgery Research Resident	CU Surgery Research Resident	2
Ioannis Ziogas	MD	2025 - 2026	Examine the impact of senescent cells on liver disease severity and macrophage function in neonatal versus weanling mice following bile duct ligation, using efferocytosis assays and single-cell RNA sequencing.	CU Surgery Research Resident	CU Surgery Research Resident	17
Dana Arenz	MD	2025 - 2026	elucidate the molecular mechanisms contributing to right ventricular fibrosis in patients experiencing right heart failure.	CU Medicine Resident, R3	CU Surgery Research Resident	7
Priyanka Nadar	MD	2026 - 2027	Identify demographic and clinical predictors of suboptimal LDL-C control and incident diabetes in patients prescribed statins for primary prevention of ASCVD.	CU Medicine Resident, R3	CU Surgery Research Resident	5

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Trainee	Doctoral Degree(s) and Year(s)	Years Funded	Topic of Research Project	Research Support at Initiation of Program	Research Support at End of Program	Current Research Support	Position at Initiation of Program	Current Position
Mario Santiago	PhD	2012 - 2017	Innate Restriction of Pathogenic Retroviruses (HIV)	NIAD R56 2009-2011 NIAD R01 2010-2013	NIAD R21 2014-2016 NIAD R56 2015-2016 NIAD R01 2015-2021 NIAD R01 2017-2022	NIADI R01 2020-2024 NIAD R21 2024-2026 VAMC 2023-2027	Assistant Professor of Medicine-Infectious Disease	CJ SOM Associate Professor of Medicine 5
Larry Allen	MD	2012 - 2017	Patient centered interventions in heart failure	NHLBI K23 2011-2015	No NIH funding	PCORI BPS-2023C1-31460 - 2024-2030 Anschutz Foundation/Anschutz Accelerator Initiative - 2024-2029 Yale/NIH/NHLBI R56HL - 2023-2024 BIDMC/NIH/NHLBI R01HL - 2022-2026	Assistant Professor of Medicine-Cardiology	CJ SOM Professor of Medicine, Division Head, Cardiology
Eric Schmidt	MD	2013 - 2018	Pathogenesis of acute lung injury (ALI)	NHLBI K08 2011-2015	NIHMS R01 2017-2020 NHLBI R01 2014-2018	NHLBI R01 2023-current NIHMS R21 2023-2024	Assistant Professor of Medicine	Massachusetts General Hospital, Division Chief of Pulmonary and Critical Care Medicine (2024)
Dan Matlock	MD	2013 - 2018	Improving the Quality of Patient Decision Making	NIA K23, 2011-2015	NHLBI R01 2017-2021 NIA R21 2018-2019	Anschutz Foundation Accelerator Initiative 2024 - 2029 NIA R21 2024 - 2025 NIH/NIA R01 2021 - 2026 NIH/NHLBI R01 2022 - 2026 AHQR R18 2022 - 2025 PCORI COR 2023 - 2029 NIA R01 2020 - 2024 NIA R01 2022 - 2027	Assistant Professor of Medicine-Geriatrics	Professor and Associate Vice Chair for Research, Department of Medicine
Rachel Zemans	MD	2013 - 2016	Mechanisms of alveolar epithelial cell spreading and migration in Acute Respiratory Distress Syndrome (ARDS)	NHLBI K08 2010-2014	NHLBI R01 2016-2020	NHLBI R01 2020-2021 NHLBI R35 2022-current NIH/NIHES R56ES035710 - 2024-2025 European Commission - 2024-2028 NIH/NHLBI T32 HL007749 - 2023-2028	Assistant Professor of Medicine	University of Michigan, Professor
Brian Graham	MD	2014 - 2019	Schistosomiasis-associated pulmonary hypertension (PH), pathogenesis of inflammation-induced pulmonary vascular disease	NHLBI K08 2011-2015 ATS / PHA research fellowship 2013-2015	NHLBI R01 2017-2019	NHLBI R01 2020-2025 NHLBI R01 2016-2027 NIAD R21 2023-2025 American Cancer Society 2024	Assistant Professor of Medicine-Pulmonary Sciences and Critical Care	UCSF, Professor of Medicine Division Chief, San Francisco General Hospital
Sachin Wani	MD	2014 - 2019	Barrett's esophagus and esophageal cancer	no NIH funding	no NIH funding	NIDDK U34-U01 2020-current	Assistant Professor of Medicine-Gastroenterology	CJ SOM Professor of Medicine and Director of Rady Esophageal and Gastric Center of Excellence
Daniel Polyea	MD 2003	2015 - 2020	Clinical and Translational Developmental Therapeutics Program Focused on Targeting Leukemia Stem Cells	Grant funding from Leukemia and Lymphoma Society Evans Foundation, American Society of Clinical Oncology	Leukemia and Lymphoma Society and V-Foundation	NCI R01 2024-current NCI R01 2024-current Leukemia and Lymphoma Society 2018-2025 Leukemia and Lymphoma Society 2024 to 2027	Assistant Professor of Medicine-Hematology	CJ SOM Professor of Medicine Clinical Director of Leukemia Services/Interim Division Chief, Hematology
Catherine Lozupone	PhD	2016 - 2021	Human microbiome composition in health and disease	NIDDK R01 2014-2018 NIDDK R01 2015-2019	NIAMS P30 (core) 2021-current NIAD U01 2021-Current NCI R21 2020-2021	NIH-NHLBI R01 2020-2025 NIH-NIAD U01 2021-2026 NIH-NIAMS P30 2021-2026 NIH-NIDDK R01 2021-2026 NIH R01 2022-2027 NIH R01 2023-2028 NIH R01 2024-2028 NIH R21 2024-2026 NIH R37 2024-2025 NIH-NIAD 2025	Assistant Professor-Biomedical Informatics	CJ SOM Professor of Bioinformatics
Kristine Erlandson	MD	2017 - 2022	HIV as a model for premature frailty	NIA R01 2016-2020 NIA K23 2014-2018	NIA R01 2020-2025	NIA R01 2020-2025 OT2HL 2021-2025 UM1 2019-2026 NIA R01 2022-2027 NIA K24 2023-2028 NIA R01 2023-2028 NIA R01 2024-2029	Assistant Professor of Medicine-Infectious Disease	CJ SOM Professor of Medicine
Kunhua Song	PhD	2017 - 2022	Translational research on human cardiomyopathy and heart failure	NHLBI R01 2016-2022	NHLBI R01 2016-2022 NHLBI R01 2022-Current	NHLBI R01 2016-2027 NHLBI R01 2022-Current DoD PRMRP 2023-Current NHLBI R01 2024-Current	Assistant Professor of Medicine-Cardiology	University of South Florida, Tenured Associate Professor of Internal Medicine
Joe Frank	MD	2018 - 2022	Chronic Pain, Opioids and Addiction: An Urgent Need for Pragmatic, Patient-Centered Research	no NIH funding	VA COA 2019-2021	DOD grant 2024-current	Assistant Professor of Medicine-Internal Medicine	CJ SOM Associate Professor of Medicine
Kristine Kuhn	MD PhD	2018 - 2022	Innate Immune Dysfunction in the Mucosal Generation of Rheumatoid Arthritis-Related Autoantibodies	NIDDK K08 2016-2020	NIAMS R01 2019-2023 NIAMS T32 2022-Current NIAMS P30 2021-Current	NIAMS R01 2024-current NIAMS T32 2022-current NIAMS P30 2021-current	Assistant Professor of Medicine-Medical Oncology	CJ SOM Professor of Medicine, Division Head, DOM Rheumatology
Traci Lyons	PhD	2018 - 2022	Towards Targeting Semaphorin 7a in Breast Cancer and Fibrosis	NCI R01 2017-2021	NIDDK R01 2022-current	NCI R01 2024-current NIDDK R01 2022-current	Assistant Professor of Medicine	CJ SOM Associate Professor of Medicine
Beth Tamburini	PhD	2018 - 2022	Lymphatics Orchestrate Tissue and Immune Homeostasis Across Systems	NIAD R01 2016-current	NIAD R01 2016-current NIAD R01 2020-2024 NIAD R21 2021-2022	NIAD R01 2016-2026 CJ SOM ASPIRE Award 2022-2024 NIAD R01 2020-2025 NIAD R01 2024-2029 R01CA269644. 1/01/2023-12/31/2027 R01CA271537. 5/01/2023-4/31/2028 R01CA271537. 8/01/2023-7/31/2028 R56DK135533. 09/15/2024 - 09/14/2025	Assistant Professor of Medicine-Gastroenterology	CJ SOM Associate Professor of Medicine
Kristen Demoruelle	MD PhD	2019 - 2023	Autoimmunity and Rheumatoid Arthritis	NIAMS R61 2019-2019	NIAMS R01 2020-2024	NIH/NIAMS R21 2024 - 2025 Investigator Initiated Studies Award 2023 - 2025 NIH/NIAMS R01 2023 - 2028 NIH/NHLBI R01 2023 - 2028 Gilead Collaborative Research Agreement 2022 - 2024 Investigator Initiated Studies Award 2021 - 2024 NIH/NIAMS P30 2021 - 2026 NIH/NIAMS R01 2020 - 2026 Allen Institute for Immunology Collaborative Project 2019 - 2026	Assistant Professor of Medicine-Internal Medicine	Associate Professor of Medicine, Division of Rheumatology, University of Colorado School of Medicine
Eric Pietras	PhD (2008) Postdoctoral Researcher (2015)	2019 - 2023	Inflammation and Hemopoietic Stem Cell Function	Webb-Waring Early Career Investigator Award 2017-2020-Boettcher Foundation	R01NIDDK 2019 - 2024	NCI R01 2023-current NIDDK R01 2023-current Evans Foundation Discovery Research Award: 2022-2025 American Cancer Society Research Scholar Award: 2022-2026 Leukemia and Lymphoma Society Scholar Award: 2023-2028	Assistant Professor of Medicine-Hematology	Associate Professor Associate Division Chief for Basic Research Meador/Scott Endowed Chair in Hematology
Frank Scott	MD	2020 - 2024	Inflammatory Bowel Disease	Crohn's and Colitis Foundation (CCF) Senior Research Award (PI) Janssen IS (PI) Takeda IS (PI)	CCF Litwin Award(Co-IMentor) CCF Health Services Research Award (PI) CCF Senior Research Award (NCE) (PI) CEPS award (Co-PI)	CCF Litwin Award (Co-IMentor) CCF Health Services Research Award (PI) Pending: NIH/NCI TR01CA292523 (9th percentile, J1T requested 12/25, anticipated start date Spring 2025)	Assistant Professor of Medicine-Gastroenterology	Associate Professor

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Sridharan Raghavan	PhD (2007) MD (2009) Residency (2012) MS (2015) Fellowship (2015)	2020 - 2024	Leveraging genetic variation to improve type 2 diabetes prevention and care	VA CDA 2019-2024	VA Merit 2024-current	VA Merit Award 2024-current, NIDDK R01 pending start date	Assistant Professor of Medicine-Internal Medicine	Associate Professor
Bill Cornwell	MD (2008) Residency (2011) Fellowship (2016) MSCS (2020)	2021 - 2025	Advancements in Understanding of Right Ventricular Pathophysiology Among Individuals with Cardiopulmonary Disease	NHLBI K23 2016-2020	no NIH funding	no NIH funding	Assistant Professor of Medicine-Cardiology	Associate Professor
Christine Swanson	MD (2009) Internal Medicine Residency (2012) Endocrine Fellowship (2015) CCO (2016) Masters of Clinical Research (2017)	2021 - 2025	Night Shift Work and Other Novel Risk Factors for Osteoporosis	NHLBI R01 2021-2026 University of Colorado CCTSI CTRC MicroGrant 09/2021 - 08/2024	NHLBI R01 2021-2026, NIA R01 2022-2027 University of Colorado CCTSI CTRC MicroGrant 06/2024 - 06/2026 GRECC Research Physician 01/2023 - Current P30 DK048520 2024 - Current (Assoc Director EBAC)	NHLBI R01 2021-2026, NIA R01 2022-2027 University of Colorado CCTSI CTRC MicroGrant 06/2024 - 06/2026 GRECC Research Physician 01/2023 - Current P30 DK048520 2024 - Current (Assoc Director EBAC)	Assistant Professor of Medicine-Endocrinology, Metabolism and Diabetes	Associate Professor
Katharina Hopp	PhD (2012)	2021 - 2025	The metabolic state of polycystic kidneys is a trigger for renal T cell immune-suppression and consequent cyst growth	NIDDK R01 2020 - 2021 NIDDK R03 2021-2023 PKD Foundation Research Grant 2021-2023 Research Grant	DoD, PRMRP PR220321 2023 - 2027 NIH/NIDDK - PKD Research & Resource Consortium 2023 - 2025 PKD Foundation Fellowship Grant 2024 - 2026 PKD Foundation Research Grant 2024 - 2026	DoD, PRMRP PR220321 2023 - 2027 NIH/NIDDK - PKD Research & Resource Consortium 2023 - 2025 PKD Foundation 2023 - 2025 PKD Foundation Fellowship Grant 2024 - 2026 PKD Foundation Research Grant 2024 - 2026	Assistant Professor of Medicine-Renal Medical Diseases/Hypertension	Associate Professor
Erin Schenk	MD (2011) PhD: Immunology (2011)	2022 - 2026	Determining peripheral immune cell populations as markers of treatment response in oncogene-driven lung cancer	K12 - 2019-2022 UOHC 2-7-2 COE Grant 2020-2021 LUNGevity Career Development Award 2021-2024	Pending	NCI R01 2021 - 2026 NCI R01 2022 - 2026 LUNGevity Career Development Award 2022 - 2025 NCI K08 2024 - 2029	Assistant Professor of Medicine-Medical Oncology	Associate Professor
Mia Smith	DVM (2019) PhD: Immunology (2017)	2022 - 2026	Immunophenotyping of blood and thyroid gland in autoimmune thyroid disease patients	NIDDK P30 - 2020-2022 OD K01 - 2020-2025 Boettcher Foundation - 2021-2024 NIH/NIDDK R03 - 2021-2023	Pending	OD K01 - 2020-2025 OD DP2 New Innovator - 2022-2027 NIDDK R01 - 2021-2026 NIH/NIDDK R21 - 2022-2024	Assistant Professor, Pediatrics, Barbara Davis Center for Diabetes	Associate Professor
Shanee Davis	MD (2010) PhD (2021)	2022 - 2026	Identifying and targeting aberrant metabolism in Klinefelter syndrome	QOS R01 - 2021-2022 AXIS Registry Seed Grant - 2021-2022 NICHD R03 - 2020-2022 Doris Duke Fund to Retain Clinical Scientists - 2020-2022 Turner Syndrome Global Alliance Kaleidoscope Award - 2019-2021 NICHD K23 - 2017-2022 NICHD R01 - 2017-2022 Boettcher Webb-Waring - 2022-2025 NICHD Pediatric Research Loan Repayment Program - 2016-2022	Pending	NICHD R01 - 2023-2028 NCATS/NICHD-2025-2030	Assistant Professor, Pediatrics-Endocrinology	Associate Professor
Sujatha Jagannathan	PhD: Cell Biology (2013)	2022 - 2026	Therapeutic target and biomarker development for fascioscapulohumeral muscular dystrophy	FSHD Society Research Grant - 2021-2023 Friends of FSH Research Grant - 2020-2021 NIGMS R35 - 2019-2023	Pending	NSF CAREER Award - 2024-2029 NIAMS R01 - 2024-2029	Assistant Professor, Biochemistry and Molecular Genetics	Assistant Professor Vice Chair for Equity - Dept of Biochemistry and Molecular Genetics
Jasper Heinsbroek	PhD: Neuroscience (2018)	2022 - 2023	Optimizing Deep Brain Stimulation Treatment for Opioid Use Disorder	NIDA DP5 Early Career Investigator Award - 2019-2024	NIDA DP5 Early Career Investigator Award - 2019-2024 CCTSI Award 2022 - 2023	NIDA DP5 Early Career Investigator Award - 2019-2024 NIDA R01 2022 - 2027 NIDA R01 2022 - 2027	Associate Professor	Assistant Professor
Hunter Moore	PhD (2017) MD (2011)	2022 - 2023	Ex vivo treatment of extravascular fibrin deposition in human livers to improve liver transplant outcomes	NHLBI K99/R00 2020-2023	NHLBI K99/R00 2020-2023		Assistant Professor	CJ SOM Associate Professor of Medicine
Edward Lau	PhD: Physiology (2014)	2023 - 2027	Pilot new single-cell technologies to study the underlying causes of cardiomyopathy	NIGMS R35 ESI Maximizing Investigators Research Award - 2022-2/27 OD R03 Enhancing Utility and Usage of Common Funds Data - 2021-2023 NHLBI R00 Pathway to Independence Award - 2020-2023	Pending	NIGMS R35 ESI Maximizing Investigators Research Award GM146815 (PI) - 2022-2027 NHLBI R01 HL169473 (PI) - 2024-2028 NHGRI R21 HG013684 (PI) - 2024-2026 NHLBI R01 HL174576 (Co-Subaward PI) - 2024-2028	Assistant Professor of Medicine-Cardiology	Associate Professor
Fan Zhang	PhD: Computational Biology (2017)	2023 - 2027	Novel big data-driven AI methods for computational omics and systems immunology to study inflammatory disease pathogenesis for translational medicine	NIAMS UC2 2022-2026 PhRMA Research Starter Grant in Translational Medicine 2022-2023 Spondylitis Association of America 2022-2023 NIDDK R01 2022-2027 NIAD R01 2017-2023 Allen Institute - 2019-2023	Pending	NIAMS UC2 2022-2026 Arthritis Foundation 2025-2026 Arthritis National Research Foundation 2023-2025	Assistant Professor of Medicine-Rheumatology	Associate Professor
Frederick Posario-Joseph	PhD: Doctor of Philosophy in Biochemistry (2010)	2023 - 2027	Elucidating the cellular and molecular mechanisms regulating placental nutrient transport and investigating the role of placental factors (secretome/miRNAs) in regulating fetal growth and placental-fetal programming in various pregnancy complications such as IUGR, obesity, and GDM	NICHD R01 2020-2025 NICHD R01 2023-2028	Pending	NICHD R01 2020-2025 NICHD R01 2023-2028	Assistant Professor, OBGYN	Associate Professor
Ian Cartwright	PhD: Toxicology (2014)	2023 - 2027	Role of neutrophil-derived myeloperoxidase in molding the inflammatory microbiota and immune cell recruitment to identify novel therapeutic targets for the treatment of Inflammatory Bowel Disease	VA BLRD and CSRD Career Development Award (CDA-2) - 2021-2026	Pending	VA BLRD and CSRD Career Development Award (CDA-2) - 2021-2026	Assistant Professor of Medicine-Gastroenterology	Associate Professor
Nathan Dahl	MD (2013)	2023 - 2027	Epigenetic regulation of chromatin and transcription in childhood brain tumors, with a focus on diffuse intrinsic pontine glioma and other high-grade gliomas	NINDS K08 2021-2026 Andrew McDonough B+ Foundation Research Grant 2021-2023 Cancer League of Colorado Research Grant - 2022-2023 American Cancer Society Institutional Research Grant 2022-2023 NIH NINDS Loan Repayment Program Award 2019-2023 Morgan Adams Foundation Research Grant - 2019-2023	Pending	NINDS K08 2021-2026	Assistant Professor, Pediatrics	Associate Professor

OECS-TRSP: 4 YEAR EARLY FACULTY AWARD TO FOCUS ON TRANSLATIONAL RESEARCH - AWARDED TO MD, MD/PHD, AND PHDS [(\$75K/YEAR FOR UP TO 4 YEARS (PREVIOUSLY 5 YEARS FOR ORIGINAL OECS SCHOLARS))]

Trainee	Doctoral Degree(s) and Year(s)	Years Funded	Topic of Research Project	Research Support at Initiation of Program	Research Support at End of Program	Current Research Support	Position at Initiation of Program	Current Position
Seth Creasy	PhD: Exercise Physiology (2016)	2023 - 2027	Examining time dependent benefits of aerobic exercise, specifically in the area of weight management	NHLBI DP5 - 2021-2026 (co-investigator) NIDDK R01 - 2021-2026 (co-investigator) Kenneth & Eva Smith Award: The Children's Mercy - 2021-2023 (co-investigator) NIDDK R01 - 2021-2023 (co-investigator) Colorado NORC Pilot and Feasibility Award Project - 2020-2023 (PI) Colorado Clinical and Translational Sciences Institute CO-Pilot Junior Faculty Award (2 different awards) - 2020-2023 (PI of one, co-investigator on another) University of Colorado Clinical and Translational Research Center Microgrant Award - 2020-2023 (PI) NHLBI K01 - 2019-2024 (PI) University of Colorado Clinical and Translational Research Center Microgrant Award - 2019-2023 (PI)	Pending	NHLBI DP5 - 2021-2026 (co-investigator) NHLBI R01 - 2021-2026 (co-investigator) NHLBI K01 - 2019-2025 (co-investigator) NIDDK R56 2023-2025 (PI) NIDDK P30 2023-2025 (co-investigator)	Assistant Professor of Medicine-Endocrinology, Metabolism and Diabetes	Associate Professor
Shaikh Afif	MSC, PhD: Biotechnology (2008)	2023 - 2027	Immunopathology of granulomatous lung diseases (chronic beryllium disease (CBD) and sarcoidosis)	Ann Theodore Sarcoidosis Foundation Grant 2022-2024 NIH R01 HL152756 (Co-I) - 2020-2024	Pending	FSR 2024 Pilot Grant - 2024-2027	Assistant Professor of Medicine-Infectious Disease	Associate Professor
Janani Ravi	PhD: Genetics, Bioinformatics, and Computational Biology	2024 - 2028	Develop general-purpose computational methods leveraging massive public datasets for mechanistic understanding of microbial genotypes, phenotypes, and diseases	NIAD U01 2023-current NIAD R21 2023-current 2 CU CPMR-DBMI dyads 2023-2024 NLM T15 2023-2024	Pending	NIAD U01 2023-2026 NIAD R21 2022-2024 2 CU CPMR-DBMI dyads 2023-2024 NLM T15 2023-2024	Assistant Professor, Biomedical Informatics	Associate Professor
Joanne Cole	PhD: Human Medical Genetics and Genomics (2016)	2024 - 2028	Using large scale genomics as a tool to elucidate diet's role in the body and huan health, with a focus on cardiometabolic disease	NIDDK R00 2023-2025 NIDDK R01 2022-2027 CU Ludeman Family Center for Women's Health Early Career Faculty Research Development Award 2023-2024 Skaggs Scholar Program - 2023-2025	Pending	NIDDK R00 2023-2025 NIDDK R01 2022-2027 CU Ludeman Family Center for Women's Health Early Career Faculty Research Development Award 2023-2024 Skaggs Scholar Program - 2023-2025 NIGMS R35 2024-2029 NIDDK U01 2024-2029 (Co-I)	Assistant Professor, Biomedical Informatics	Associate Professor
Martin Brauss	PhD: Molecular Biology (2013)	2024 - 2028	Genomic mosaicism detection to understand the clonality of the hematopoietic system and its correlation with aging and disease	CCTSI Pilot Grant Award - 2022-2023 Webb-Waring Biomedical Research Grant - 2022-2025	Pending	Webb-Waring Biomedical Research Grant - 2022-2025 NIH R01 - 2024-2029	Assistant Professor, Pediatrics-Clinical Genetics and Metabolism	Associate Professor
Ronald Vagnozzi	PhD: Cell and Developmental Biology (2013)	2024 - 2028	Cellular mechanisms of the injury and stress response in heart failure and myocardial infarction, with emphasis on the innate immune system and fibrotic wound healing	NHLBI R01 - 2023-2028	Pending	NHLBI R01 - 2023-2028 DOM COLLABORATE - 2024-2025	Assistant Professor of Medicine-Cardiology	Assistant Professor
Jonathan (Yoni) Ashar	PhD: Clinical Psychology and Neuroscience	2024 - 2028	Developing brain biomarkers and new treatments for chronic pain	CU Anschutz Center for Cannabis Research P50 - 2023-2024 VA Pain Opioid CORE Rapid Start Grant - 2023-2024 CU Division of Internal Medicine Small Grants Program - 2023-2024 University of Colorado Interdisciplinary Joint Biology Pilot Program - 2022-2023 Translational Research Institute for Pain in Later Life - 2022-2024 Royal Center for Fearless Behavioral Change - 2022-2024 Psychophysiological Disorders Foundation - 2022-2025	Pending	Dept of Defense CPMRP CORA PRT for Veterans With Chronic Back Pain: Comparative Efficacy & Facilitators & Barriers to Implementation - 2024 - 2028 Weill Cornell Cornell Roybal Center Pain Reprocessing Therapy for Chronic Post-TKA Pain - 2024 - 2026 CU School of Med. Translational Research Scholars Program - 2024 - 2028 CU Anschutz Center for Cannabis Research - 2024 - 2026 Psychophysiological Disorders Foundation, Unrestricted foundation award for chronic pain research - 2022 - 2025	Assistant Professor of Medicine-Internal Medicine	Associate Professor
Maria Amaya	MD/PhD training program, Virginia Commonwealth University	2025-2029	Understanding metabolic properties of myeloid malignant cells in myelodysplastic syndromes and acute myeloid leukemia	Veterans Administration-2022-2027; Vera and Joseph Dresner MDS Foundation-2024-2026	Pending	VA CDA 2022 - 2027 Interleukin Foundation 2025 - 2027 Joseph and Vera Dresner MDS Grant for Early Career Investigators 2024 - 2026 Cancer Center TH1 Pilot Grant 2026 Translational Research Scholars Program 2025 - 2029	Assistant Professor of Medicine-Hematology	Associate Professor
Noah Johnson	PhD: Biomedical Engineering	2025-2029	Develop innovative hiPSC-based brain organoid models to understand how genetic ancestry of the apolipoprotein E gene and other key Alzheimer's risk genes influence glial reactivity, neuronal vulnerability, and pharmacological treatment efficacy	NIH/NIA-2023-2026	Pending	NIH RF1 AG078965-01A1 Johnson (PI) 07/2023-07/2026 Investigating and targeting apolipoprotein E4 in Down syndrome-associated Alzheimer's disease NIH R21 AG080257-01 Johnson, Park (Multi-PI) 12/2022-11/2024 Determining the role of tissue stiffness in the development of Alzheimer's disease pathology State of Colorado Research Grant Potter (PI), Role: Investigator 2018-ongoing Mechanisms of Alzheimer's disease and its link with Down syndrome University of Colorado Alzheimer's and Cognition Center (CUACC) Internal Funding Potter (PI), Role: Investigator 2018-ongoing Mechanisms and therapies in neurodegeneration	Assistant Professor, Neurology	Associate Professor

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Trainee	Doctoral Degree(s) and Year(s)	Years Funded	Topic of Research Project	Research Support at Initiation of Program	Research Support at End of Program	Current Research Support	Position at Initiation of Program	Current Position
Anna Helena Jonsson	MD, PhD: Immunology	2025-2029	CD8 T cells in rheumatoid arthritis (RA) and other autoimmune disease	NIH/NIAHS-2022-present; Rheumatology Research Foundation-K Bridge Award-2022-present	Pending	NIH/NIAHS R01 2025-2030 NIH/NIAHS K08 2025-2027	Assistant Professor, Medicine-Rheumatology	Associate Professor
Debosmita (Debo) Sardar	PhD: Medicinal Chemistry; Masters, Biochemistry and Genetics	2025-2029	Research on glial cells to brain tumors of glioblastoma, a disease characterized by both glial and epigenetic dysfunction.	NIDCD-2024-2027	Pending	NIH R00 2024-2027 Klingenstein Fellowship in Neuroscience 2025-2028	Assistant Professor, Pharmacology	Associate Professor
Maggie Stanistawski	PhD: Epidemiology	2025-2029	Understanding the role of the gut microbiome and related molecular profiles in health and disease, specifically obesity, cardiometabolic disease, inflammatory conditions, and weight loss in the context of clinical interventions.	NIH/NHLBI-2022-2027; NIH/NIAHS-2021-2026	Pending	NHLBI K01 2022-2027 NHLBI R03 2025-2027 NHLBI R01 (site PI) 2025-2028 NIH P30 (co-PI) 2021-2026	Assistant Professor, Biomedical Informatics	Associate Professor
Richard Tobin	PhD: Medical Sciences	2025-2029	Investigate the roles of unconventional T cells in adoptive cell therapies and explore how these cells can be harnessed to improve the efficacy of these innovative treatments	National Cancer Institute, 2023-2028; Department of Defense-2024-2027	Pending	NCI R37 2023 - 2028 DOD MRP Idea Award 2024 - 2027 NCI R21 (Co-PI) 2025 - 2027 Cancer League of Colorado 2026 - 2027 NIAD R21 (Co-PI) 2026 - 2028 DOD MRP Team Science Award 2026 - 2029	Assistant Professor, Surgery-Surgical Oncology	Associate Professor

ASPIRE: 2 YEAR INCUBATOR FOR PROGRAMMATIC RESEARCH (TYPICALLY \$100K/YEAR FOR 2 YEARS)

Team Leader	Years Funded	Research Topic	Departments Represented by Team Members	Status of Program Programmatic Research Grant Proposal Submission
Fernando Holguin, MD	2022 - 2024	Interaction of IFN/IL-36, succinate and palmitic acid pathways in obese asthma	Medicine; Department of PulmG3:G11onary Sciences, Critical Care and Sleep Medicine National Jewish Health;	Collecting prelim data
Beth Tamburini, PhD	2022 - 2024	Mechanisms of immune protection and pathology by lymph node stromal cells	Medicine; Immunology and Microbiology; Biochemistry and Molecular Genetics	NIH P01 Submitted 2024, scored, Resubmitted January 2025
York Miller, MD	2022 - 2024	The Epithelial-Immune Landscape and Therapeutic Targets in Pulmonary Premalignancy	Medicine; Anesthesiology; Pathology	NIH P01 Submitted 2024, scored, Resubmission planned for 2026
Brianne Bettcher, PhD	2023 - 2025	Leveraging Microstructural Neuroimaging Techniques to Understand Biological Pathways of Decline: A neuroimmunological Approach to Alzheimer's Disease	Neurology; Radiology; Department of Biostatistics and Informatics, Colorado School of Public Health	Collecting prelim data: considering multi-PI grant late 2025
Craig Jordan, PhD	2023 - 2025	Targeting therapeutic vulnerabilities in myeloid pathogenesis	Medicine; Pathology	Pending
Traci Lyons, PhD	2023 - 2025	Breast Cancer Co-opts Reversible Physiologic Programs of Immune Suppression	Medicine; Pathology; Immunology and Microbiology; Texas A&M Center for Environmental Health Research, Texas A&M University	Received a competitive score on P01 submission to the NCI. Planning to resubmit proposal in late 2026.
Kika Sucharov, PhD	2023 - 2025	Organ crosstalk in the cardio-pulmonary-renal axis and the effect on heart mitochondrial and cardiac function	Medicine; Pediatrics	Collecting prelim data
Abigail Person, PhD	2024 - 2026	Neural Mechanisms of Time Estimation	Physiology and Biophysics	Submissions planned for 2026: NINDS MPI R01s; Raynor Cerebellum Project MPI submission
Daniel Tollin, PhD	2024 - 2026	Synaptopathy as a common etiology underlying hearing and balance disorders with aging	Physiology and Biophysics; Otolaryngology-Head and Neck Surgery	Collecting prelim data
Heide Ford, PhD	2024 - 2026	Transcriptional and mRNA Translational Control in the Adaptation of Breast Cancer Cells to Microenvironmental Stressors during Metastasis	Pharmacology; Biochemistry and Molecular Genetics; Pathology; Immunology and Microbiology; Department of Molecular and Cellular Biology at Baylor College of Medicine	NIH NC1 P01 submission expected fall 2026
Mario Santiago, PhD	2024 - 2026	HIV-1 Persistence in the Gastrointestinal Tract	Medicine; Biostatistics and Informatics; Skaggs School of Pharmacy and Pharmaceutical Sciences	Planning U19 submission in 2026.
Bruce Appel, PhD	2025-2027	Molecular Mechanisms of Activity-Regulated Myelination	Pediatrics, Cell and Developmental Biology	Collecting prelim data
Benjamin Bitler, PhD	2025-2027	Translation of Novel Therapies to Improve Outcomes for Individuals with Ovarian Cancer	OBGYN, Pathology, School of Public Health, CU Boulder, University of New Mexico Cancer Center	Planning for P01 submission in September 2026.
Rytis Prekeris, PhD	2025-2027	Molecular Mechanisms Regulating Cell Division and Genomic Stability in Cancer Cells	Cell and Developmental Biology, Biochemistry and Molecular Genetics	Planning to apply for Endeavor award as of June 2026.

Program to Advance
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and Translational
Research (**PAPSTR**)

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