

**people
passion
progress**

Department of Medicine

ANNUAL REPORT 2018



Department
of Medicine

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

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welcome

Every day, the dedicated healers, educators, mentors, and investigators in the Department of Medicine strive to transform the way we take care of our patients and understand disease.

It is this **passion** of our **people** that allows us to do truly extraordinary things, consistently pushing us forward as together we make exceptional **progress** in our mission areas. And it is our collective focus, creativity, and thoughtful commitment to each other and the work we do, that puts us among the top tier departments of medicine in this country.

While we have made many outstanding and impactful accomplishments over the past year, I'd like to highlight a few that illustrate balanced development across our mission pillars – and you'll read about others in the following pages.

- › A twofold increase in clinical activity, with department faculty treating 51.8 percent of all UCHHealth University of Colorado Hospital admissions in FY18
- › A threefold increase in the diversity of our house staff between 2011 – 2018
- › A 25 percent increase in overall research support and 27 percent in DOM federal support

As we look into 2019 and beyond, I continue to envision opportunities to participate and innovate, collaborate, solve, and support each other in advancing and enhancing human health. Thank you to everyone – from our faculty to our partners, affiliates and volunteers – your heartfelt commitment and unwavering dedication is inspiring. I look forward to working with you as we embark on another exciting year of accomplishments and discoveries.

David A. Schwartz, MD
Professor of Medicine and Immunology
Robert W. Schrier Chair of Medicine

department leadership



David A. Schwartz, MD
Professor of Medicine and Immunology
Robert W. Schrier Chair of Medicine



Corena Carmichael, CPA
Director of Finance and Administration



Cara Wilson, MD
Executive Vice Chair



Sonia Flores, PhD
Vice Chair for Diversity and Justice



Richard Albert, MD
Vice Chair for Clinical Affairs



Michael Ho, MD
Vice Chair for Quality



Greg Austin, MD, MPH
Vice Chair for Regional Clinical Affairs



Craig Jordan, PhD
Vice Chair for Basic Research



James Beck, MD
Vice Chair for Veterans Affairs



Marc Moss, MD
Vice Chair for Clinical Research



Active Search
Vice Chair for Education



Ali Musani, MD
Vice Chair for Global Health

For more information see [DOM Department Leadership](#)

affiliate department chairs



Edward Havranek, MD, MS
Department of Medicine
Denver Health



James Beck, MD
Department of Medicine
VA Eastern Colorado Health
Care System



Richard Martin, MD
Department of Medicine
National Jewish Health

division leadership

Allergy and Clinical Immunology

Andrew Fontenot, MD
Division Head

Stephen Dreskin, MD, PhD
Associate Division Head for
Clinical Affairs

Biomedical Informatics and Personalized Medicine

Kathleen Barnes, PhD
Division Head

Cardiology

Peter Buttrick, MD
Division Head

Larry Allen, MD
Associate Division Head for
Clinical Affairs

Clinical Pharmacology and Toxicology

Curt Freed, MD
Division Head

Endocrinology, Metabolism, and Diabetes

Bryan Haugen, MD
Division Head

Mike McDermott, MD
Associate Division Head for Clinical
Affairs

Gastroenterology and Hepatology

Steven Edmundowicz, MD
Interim Division Head
Associate Division Head for
Clinical Affairs

Gastroenterology and Hepatology

Sean Colgan, PhD
Interim Division Head

General Internal Medicine

Mark Earnest, MD, PhD
Division Head

Carmen Lewis, MD, MPH
Associate Division Head for Clinical
Affairs

Geriatric Medicine

Robert Schwartz, MD
Division Head

Bennett Parnes, MD
Associate Division Head for Clinical
Affairs

Health Care Policy and Research

Eric Coleman, MD
Division Head

Hematology

Craig Jordan, PhD
Division Head

Clay Smith, MD
Associate Division Head for Clinical
Affairs

Hospital Medicine

Marisha Burden, MD
Division Head

Infectious Diseases

Eric Poeschla, MD
Division Head

Infectious Diseases

Steven Johnson, MD
Associate Division Head for Clinical
Affairs

Medical Oncology

Wells Messersmith, MD
Division Head

Virginia Borges, MD, MMSc
Deputy Division Head

Tom Purcell, MD, MBA
Associate Division Head for Clinical
Affairs

Pulmonary Sciences and Critical Care Medicine

Marc Moss, MD
Interim Division Head

Jeff Sippel, MD
Associate Division Head for
Clinical Affairs

Renal Diseases and Hypertension

Michel Chonchol, MD
Interim Division Head

Judith Blaine, MD, PhD
Associate Division Head for Clinical
Affairs

Rheumatology

V. Michael Holers, MD
Division Head

Duane Pearson, MD
Associate Division Head for Clinical
Affairs

fast facts

CU DEPARTMENT OF MEDICINE

13,257

inpatient discharges
at University
of Colorado Hospital

1,098

faculty

616

researchers

192

residents

132

fellows

16

divisions

The CU Department of Medicine (DOM) is emerging as one of the top programs in the country. Not only have we seen a **threefold increase in the diversity of our housestaff** from 2011 – 2018, but we have **outpaced the growth of National Institutes of Health (NIH) support two-to-one** over the past five years and **doubled our clinical activity** during the past eight years. In addition, **60 of our faculty members were recognized as Denver's Top Doctors** for 2018 in 5280 magazine.

milestones2018

18

provisional
patent filings

23

issued patents

1,674

peer-reviewed
papers

123

active
clinical trials

151

active
industry trials

43

invention
disclosures
received

U.S. NEWS & WORLD REPORT NATIONAL RANKINGS 2018

Pulmonary	1
Endocrinology	6
Renal	21
Cancer	26
Gastroenterology	27
Geriatrics	37
Cardiology	42
Rheumatology	High Performing

SPECIALIZED PROGRAMS:

Patient Care & Quality

- › Shark Tank - high value care (HVC) project competition
- › Expert Council for Clinical Excellence and Leadership (EXCCCEL)

Education

- › Program for Academic Clinical Educators (PACE)
- › Clinician Educator Fellow Development Program
- › Colorado–Zimbabwe International Exchange (CoZIE)
- › Department of Medicine Research and Equity In Academic Medicine (DREAM)

Research & Innovation

- › Research Intensive Faculty Support
- › Outstanding Early Career Scholars Program (OECSP)

Key Department Programs

- › Rising Stars
- › Program to Advance Gender Equity (PAGE)
- › Bias Reduction in Internal Medicine (BRIM)

our faculty



Each member of our extraordinary faculty is passionate about driving growth and increasing capacity within the systems they work to **research, discover, evaluate, innovate, teach, and continuously learn and improve**. Located on the University of Colorado Anschutz Medical Campus, our faculty enjoys the perfect home for nurturing collaborative efforts, promoting cross pollination of ideas, and transforming the future of health care. Together, we are:

- › the only comprehensive academic health sciences center in Colorado
- › the largest academic health center in the Rocky Mountain region
- › one of the nation's newest health sciences campuses
- › emerging as one of the top programs in the country

With our shared values of altruism, integrity, diversity, and curiosity, we create an aligned vision to deliver the highest quality of care, train the next generation, and support impactful scholarship. Always aspiring to be and do better, we focus on promoting diversity, driving equity, encouraging inclusivity, and supporting faculty resilience.



EYE ON THE FUTURE

To support our growing faculty and Department of Medicine needs, Cara Wilson, MD has been appointed DOM Executive Vice Chair. In her new role, Dr. Wilson will partner with the Chair of Medicine in the day-to-day administration of the department. In addition, she will initiate strategic planning and evaluation across the department, work to improve departmental communication, and continue to promote a positive environment. Through distributive leadership, the addition of this role will increase our ability as a department to be agile and responsive as we navigate transformational changes occurring in academic medicine.

future of medicine

RISING STARS

The Department of Medicine Rising Star Award recognizes outstanding early-career faculty exemplifying 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 with final selection by a committee consisting of the department's senior leadership.

2018

Amira del Pino-Jones, MD, Hospital Medicine

Dr. del Pino-Jones walks the talk with commitment to enhancing patient care, educating future health care providers, and promoting a diverse and equitable workforce and work environment.

Hillary Lum, MD, PhD, Geriatric Medicine

Dr. Lum is leading innovative, practical, person-centered research to enhance advance care planning. Funded by an NIA K76 Award, the Colorado Health Foundation, and the NextFifty Initiative, she has published 21 peer-reviewed manuscripts since 2015.

Traci Lyons, PhD, Medical Oncology

Dr. Lyons excels in the areas of scientific creativity, cutting-edge research, high impact publications, and effective collaborations. She is a recognized expert in postpartum breast cancer biology and normal breast biology.

Enkhtsetseg Purev, MD, PhD, Hematology

Dr. Purev is a dedicated physician scientist leading CU to the forefront of cellular therapeutics as Director, Cellular Immunotherapy program. This remarkable technology has provided true breakthrough for critically ill patients. She is one of the main leaders on campus in the exciting new field.

2017

Robert Burke, MD, MS, FHM, General Internal Medicine

Dr. Burke is recognized as an outstanding clinician and educator, receiving Faculty Teaching Award from the University of Colorado Internal Medicine Residency Program. His research focus is on improving transitions of care. He has over 30 peer-reviewed publications/abstracts/publications.

Skotti Church, MD, Geriatric Medicine

Dr. Church earned the role of Program Director only two years out of fellowship. She developed the geriatric consultation in the Emergency Department to help reduce unnecessary admissions for chronically ill/frail older adults. She consistently receives outstanding teaching reviews along with being considered an excellent clinician.

Maria (Gaby) Frank, MD, FACP, FHM, Hospital Medicine

Dr. Frank is a leader in the growth and success of the Hospital Medicine division, recognized educator including co-directing the mentoring program for housestaff developed at Denver Health. She completed the Teaching Scholar Program and was selected to start the Leadership in Educational Administration Program in 2017. She continually strives to train leaders in bedside diagnosis skills and high value medicine.

Kristine Kuhn, MD, PhD, Rheumatology

Dr. Kuhn is an outstanding clinician and educator. She built her laboratory from scratch, obtaining additional funding in the form of an NIH K08, Global Probiotics Council Young Investigator's Grant, and Advancing Science through Pfizer-Investigator Research Exchange (ASPIRE). She was recognized by the American College of Rheumatology.

For more information see [DOM Rising Stars](#)



RISING STARS / 2018

**Amira del
Pino-Jones**
MD
Hospital Medicine



**Hillary
Lum**
MD, PhD
Geriatric Medicine



**Traci
Lyons**
PhD
Medical Oncology



**Enkhtsetseg
Purev**
MD, PhD
Hematology



RISING STARS / 2017

**Robert
Burke**
MD, MS, FHM
General Internal
Medicine



**Skotti
Church**
MD
Geriatric Medicine



**Maria (Gaby)
Frank**
MD, FACP, FHM
Hospital Medicine



**Kristine
Kuhn**
MD, PhD
Rheumatology



education

The Department of Medicine is committed to educating innovative and talented future leaders in medicine

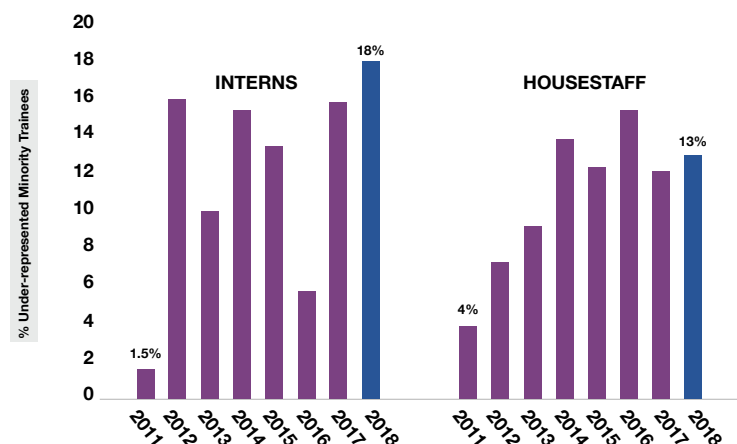
including clinicians, researchers, physician-scientists, and educators. To do so, we focus on providing a dynamic, vibrant environment that is programmatically responsive to the ever-changing face of medical education. We offer 16 ACGME-accredited subspecialty fellowship programs and several non-ACGME fellowships spanning internal medicine subspecialties.

Our **Internal Medicine-Pediatrics Residency Training Program**, in partnership with the Department of Pediatrics, **offers a unique training opportunity** for individuals who have an interest in clinical care, research, education, or leadership in caring for the health of patients across their lifespan.

KEY ACCOMPLISHMENTS, 2017-2018

- › 192 Residents
- › 132 Fellows
- › Threefold increase in diversity over the past seven years
- › New DOM Residency Program Director, Geoff Connors, MD selected after extensive and competitive national search. Dr. Connors and his team's focus on subspecialty education supports the development of future physician scientists through a stringent, academically-oriented program
- › The University of Colorado Anschutz Medical Campus was chosen to be one of the nine national Professionals Accelerating Clinical and Educational Redesign (PACER) sites working to foster interprofessional collaborative practice locally and nationally

PRIORITIZE DIVERSITY



EYE ON THE FUTURE

Cultivate the next generation of health care leaders through:

- › Continued focus on increased diversity
- › Sustained support for DOM faculty development programs including Clinical-Educator Fellow Development, Health Services Research Grant, professional development for T32 trainees and mitigating unconscious bias workshops
- › 2019 implementation of creative, future-focused residency program redesign
- › Recruit our next Vice Chair for Education

For more information see [DOM Education and Training](#)

PACE PROGRAM

The Program for Academic Clinician Educators (PACE) supports career development of early to mid-career DOM clinician educators. These faculty members guide how we teach and assess the health profession's learners, develop and improve innovative educational programs, and engage in educational research.

2018-19 PACE SCHOLARS



Amira del Pino-Jones, MD, Assistant Professor, Hospital Medicine

Dr. del Pino-Jones' PACE project focuses on the current diversity and gender climate within the Division of Hospital Medicine and the DOM.



Chris King, MD, FACP, Assistant Professor, Hospital Medicine

Dr. King's PACE grant funds the expansion of a pilot curriculum that brings high-value care teaching to the bedside.



Anna Neumeier, MD, Assistant Professor, Pulmonary Sciences and Critical Care

Dr. Neumeier is using her PACE support to create a multi-specialty, post-graduate curriculum in Quality Improvement (QI) that develops skills of fellows-in-training and early and mid-career level faculty in QI data acquisition, interpretation, application to project design, and scholarship.



Janet Corral, PhD, Associate Professor, General Internal Medicine

Dr. Corral's PACE project built off of several successful pilot programs to create a digital, just-in-time (JIT) coaching system (JITCS) for educators at the CU Anschutz Medical Campus.



Katherine Frasca, MD, Assistant Professor, Infectious Diseases

Dr. Frasca's PACE program creates a comprehensive, interprofessional, patient-centered, educational curriculum on HIV prevention for Internal Medicine residents and allied health professions.



Katarzyna Mastalerz, MD, Associate Professor, Hospital Medicine

Dr. Mastalerz is using her PACE support to incorporate an educational communication component for residents into an interprofessional inpatient unit called an Accountable Care Unit (ACU) aimed at reducing inpatient medical errors, a large percentage of which are attributable to poor communication and ineffective teamwork.



Paul Menard-Katcher, MD, Assistant Professor, Gastroenterology and Hepatology

Dr. Menard-Katcher is working to develop novel curricula and trainee assessment instruments using Competency-Based Medical Education (CBME) based tools such as entrustable professional activities (EPAs) to better train medical learners and to aid in trainee competency assessment.

patient care & quality

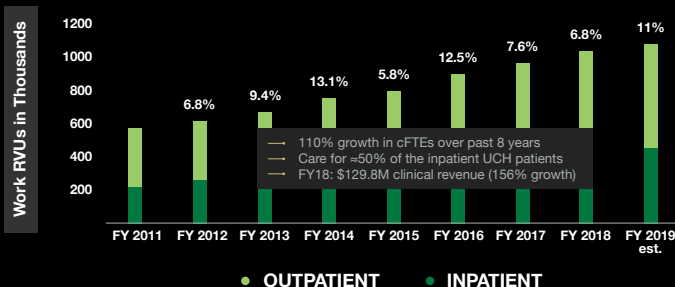
Our clinical programs are recognized nationally for excellence in caring for our very complex patient population. **We attract the best and brightest physicians, scientists, and students** from around the world, **ensuring a level of patient care second to none.**

Experiencing unprecedented growth in all aspects of our clinical mission, in turn enhances efforts in our education and research mission areas. This year, **the ongoing partnerships between the Department of Medicine, UCHHealth, other Departments, and the School of Medicine (SOM) resulted in:**

- › **Twofold increase in clinical activity over the past eight years**
- › **Department of Medicine faculty treating 51.8 percent of all University of Colorado Hospital admissions in FY18**
- › **\$129.8M clinical revenue in FY18 representing 156 percent growth**

GROWTH OF CLINICAL ENTERPRISE [WORK RVUs IN THOUSANDS]

SINCE 2011
— 100% Increase in wRVUs (>1 million wRVUs)



KEY ACCOMPLISHMENTS, 2018

- › U.S. News and World Report rankings for eight Divisions with Pulmonary Critical Care #1 shared with National Jewish Health
- › Strong partnership and affiliations with UCHHealth University of Colorado Hospital, Denver Health, National Jewish Health, and the Rocky Mountain Regional VA Medical Center, continue to provide high-quality, high-value care to a broad spectrum of patients
- › Strong residency and fellowship programs continue to cultivate the physician leaders of tomorrow

SPOTLIGHT ON QUALITY

Under the leadership of Michael Ho, MD, Vice Chair Quality, and Associate Chairs Darlene Tad-y, MD and Anunta Virapongse, MD, MPH, we approach our quality efforts through multi-disciplinary teams and leveraging data to guide those efforts. Highlights include:

- › Forming the Morbidity and Mortality (M&M) Steering Committee
- › Developing the Quality Safety Academy; in collaboration with the Institute for Health care Quality, Safety and Efficiency (IHQSE), Graduate Medical Education (GME), and Department of Surgery
- › Hosting a Quality Safety Symposium and 3rd Annual Shark Tank (high-value care project competition)



SPOTLIGHT ON CLINICAL OPERATIONS

Under the guidance of Rick Albert, MD, Vice Chair Clinical Affairs, newly appointed divisional Associate Clinical Directors are a future focused team of leaders, partnering with CU Medicine and UCHHealth, to apply data and decision-making tools to ongoing practice improvement, clinical innovation, and enhanced patient care.

Recently established the Division of Hospital Medicine led by Marisha Burden, MD — **strengthening clinical care** and **advancing the science** of hospital medicine.

For more information see [DOM Patient Care](#)



EXPERT COUNCIL FOR CLINICAL EXCELLENCE AND LEADERSHIP (EXCCEL)

Recognizing and advancing clinical excellence: nominated members exemplify outstanding clinical care, embody the practices that make for a master clinician, and model the highest standards of professionalism and integrity.

Ethan Cumbler MD, FHM, FACP Co-Chair EXCCEL
Melter Anderson MD, FACP Co-Chair EXCCEL

CELEBRATING 2019 NEW MEMBERS

- › Nancy Madinger, MD – Infectious Diseases, UCHHealth
- › Paul Varosy, MD – Cardiology, VA
- › Stacey Seggelke, DNP, CNS – Endocrinology, UCHHealth
- › Jean Youngwerth, MD – General Internal Medicine, UCHHealth
- › Todd Bull, MD – Pulmonary and Critical Care Medicine, UCHHealth
- › Abigail Lara, MD – Pulmonary and Critical Care Medicine, UCHHealth

RECOGNIZING INAUGURAL MEMBERS

- › Sterling West, MD – Rheumatology, UCHHealth
- › Maria (Gaby) Frank, MD – Hospital Medicine, Denver Health
- › Melter Anderson, MD – Hospital Medicine, VA
- › Lawrence Feinberg, MD – General Internal Medicine, UCHHealth
- › Jeffrey Wallace, MD – Geriatrics, UCHHealth

EYE ON THE FUTURE

Cultivate the next generation of health care leaders:

- › Expand interdisciplinary clinical programs; integrate clinical growth with education and research programs
- › Strategic alignment in growth of UCHHealth regional facilities including appointment of Greg Austin, MD, MPH as Vice Chair, Regional Clinical Affairs
- › Support and forward the DOM wellness initiative
- › Focus on quality improvement (QI) through enhanced access to QI data and expertise, and development of high-level, data driven decision-making skills
 - » Identifying and leading QI projects to improve the value of care delivered
 - » Innovating in QI education
 - » Develop fellowship training program for QI and learning health system research

research & innovation

RESEARCH

The Department of Medicine faculty are practicing clinicians and researchers who, along with their students, **bring advances in the lab directly to the clinic, improving patient care and outcomes.** Our scientific research yields discoveries that contribute new information about the nature and treatment of disease to the rest of the world while our divisions:

- › have diverse and vibrant externally funded research programs
- › provide research opportunities for our trainees
- › support the next generation of key innovators in shaping the future of health care through our robust Physician Scientist Training Program
- › advance a pipeline of diverse faculty through our DREAM program for medical students

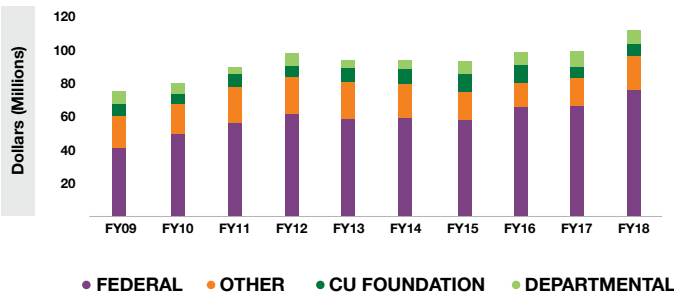
We are creative and innovative in our approach and our researchers turn innovations into business opportunities and new products, boosting the economy, and elevating the quality of health care.

2018 KEY ACCOMPLISHMENTS

- › More than 36 percent increase in federal support
- › Continued recognition in nation's top 25 departments of medicine in NIH research funding with \$57.7 million (direct and indirect). **Approximately 30 percent of total NIH funding coming to the University of Colorado School of Medicine (SOM) being in the DOM.**
- › Outpaced overall NIH Extramural support two-to-one

2012-2018: ↑ 13% NIH Extramural Support
↑ 27% DOM NIH Awards

SINCE 2011
 — Overall research support has increased by 25%
 — ↑ Federal Support by 36%



Researchers from our department are helping lead **all** five Transformational Research Funding initiatives launched by the CU SOM in 2016.

PROGRAMMATIC HIGHLIGHTS

- › Research-intensive faculty salary support allows faculty to be strategically more competitive in their unique domains of research
- › Integrated DOM/SOM Bridge funding program for faculty support between grants
- › Showcase opportunities: research and innovation conference, Annual Research Day
- › Research Office support for grant applications
- › Outstanding Early Career Scholars Program (OECSP): four new awards for FY2018

2018 OECSP AWARDEES



Joseph Frank
 MD, MPH, Assistant Professor,
 General Internal Medicine



Kristine Kuhn
 MD, MPH, Assistant Professor,
 Rheumatology



Traci Lyons
 PhD, Assistant Professor,
 Medical Oncology

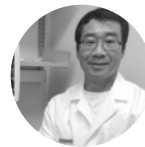


Beth Tambourini
 PhD, Assistant Professor,
 Gastroenterology and Hepatology

2017 OECSP AWARDEES

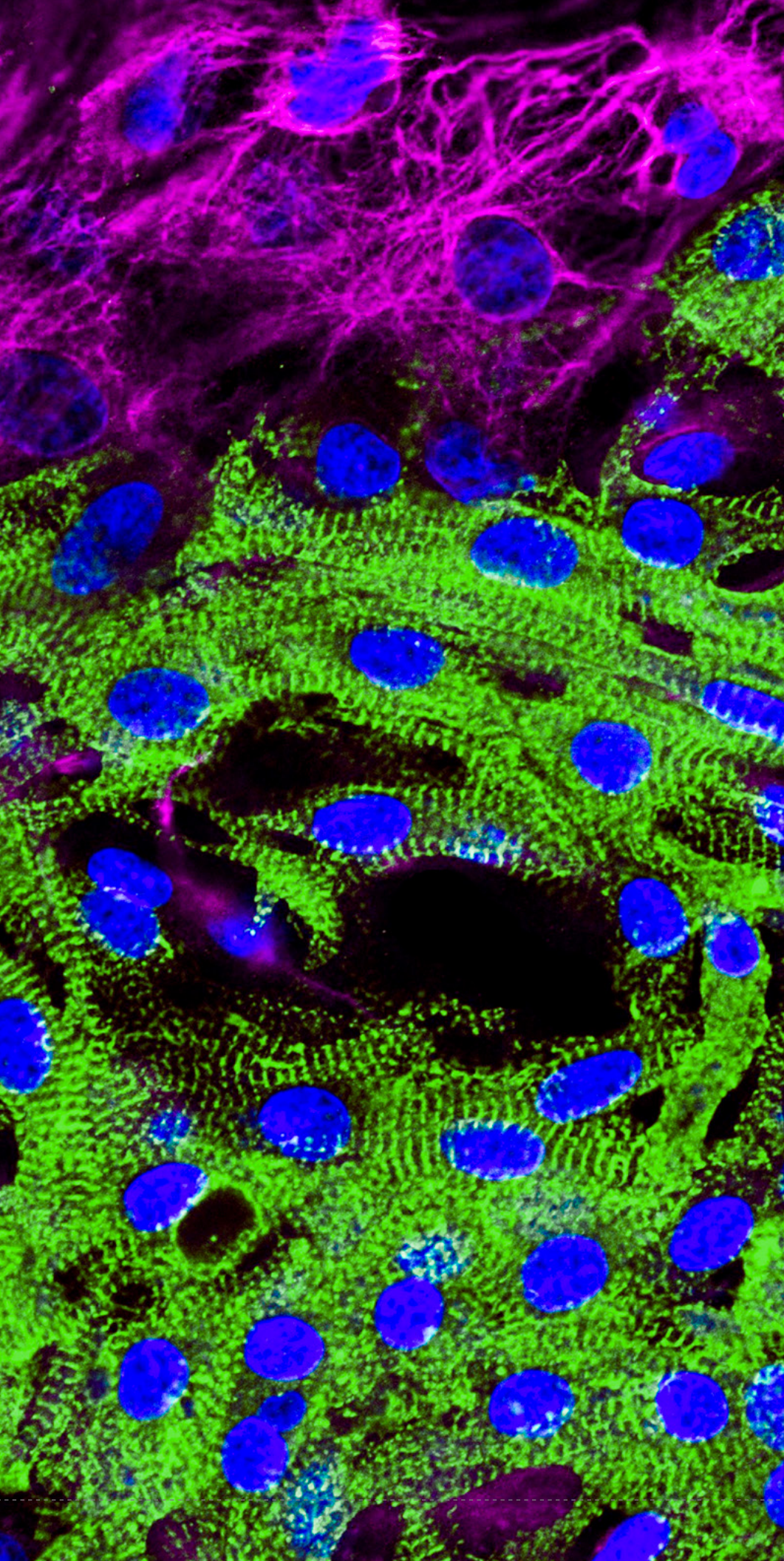


Kristine Erlandson
 MD, Assistant Professor,
 Infectious Diseases



Kunhua Song
 PhD, Assistant Professor,
 Cardiology

For more information see [DOM OECSP](#)



EYE ON THE FUTURE

CU Innovations SPARK Program: creating educational and research opportunities to support commercialization of academic research. Three DOM teams in 2018.

Division of Bioinformatics and Personalized Medicine (BIPM) led by Kathleen Barnes, PhD, BIPM has emerged as a national leader in personalized medicine.

Interdisciplinary Professorship Recruitment: targeted efforts to recruit mid-career faculty who will catalyze and develop new collaborations that bridge scientific and clinical disciplines, accelerating discovery in a variety of fields of interest to the department and campus.

Ongoing cultivation of the next generation of physician scientists through **sustained support for DOM research faculty** focused programs and resources such as the Research Office.

Cardiac tissue engineering: Image shows ventricular myocytes (green) and ventricular fibroblasts (pink) in cell culture on a 3D biomimetic polymer matrix. Cells from neonatal rats; nuclei shown in blue.

Adapted from Biomacromolecules 17: 1593, 2016 Contributors: Brisa Peña, PhD; Valentina Martinelli, PhD; Mark Jeong, MD; Susanna Bosi, PhD; Romano Lapasin, PhD; Matthew R. G. Taylor, MD, PhD; Carlin S. Long, MD; Robin Shandas, PhD; Daewon Park, PhD; Luisa Mestroni, MD

For more information see
[DOM Research](#)

interdisciplinary professorships

ENHANCING OUR RESEARCH MISSION:

The Interdisciplinary Professorship Recruitment initiative catalyzes new collaborations to bridge scientific/clinical disciplines within the Department of Medicine, the broader Anschutz research community, and accelerates discovery in a variety of fields.

› **Better together**

Integrating information, data, techniques, tools, perspectives, concepts, and theories from two or more disciplines of specialized knowledge.

› **Expanding frontiers**

Advancing fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

With an eye to the future of medicine and health care, the DOM, with support from the CU School of Medicine, has allocated \$15M to the recruitment of eight to ten outstanding interdisciplinary research faculty from outside institutions over the next few years. In 2017/2018 we celebrated the addition of three exceptional faculty to our team.

**ERIC G. CAMPBELL, PHD**

Dr. Campbell obtained his undergraduate, masters, and doctoral training at the University of Minnesota (Twin Cities) and completed a two-year post-doctorate in health policy at the Mongan Institute for Health Policy (MIHP) at the Massachusetts General Hospital (MGH) and Harvard Medical School (HMS) in Boston. His primary research focus is understanding the nature, extent and consequence of academic industry relationships in medical education, research, and clinical care. He also conducts research on issues related to professionalism in medicine, electronic health records, patient safety, and other topics in health care policy. Dr. Campbell has been continuously funded by numerous R01 awards from NIH and grants from private foundations, has twice testified before the United States Congress on issues related to conflicts of interest in medicine, and has published 107 original research articles over his career.

**EDUARDO DAVILA, PHD**

Dr. Davila joined the DOM Division of Medical Oncology as a Professor of Medicine in August 2018 after being recruited from the University of Maryland, where he led the Tumor Immunology and Immunotherapy Program. Dr. Davila has been appointed to the Amy Davis Chair of Basic Human Immunology and will serve as co-Leader of the “Tumor-Host Interaction” program in the University of Colorado Cancer Center, as Immunotherapy Director for the Division of Medical Oncology, and will spearhead program development for the Human Immunology and Immunotherapy Initiative (HI3). He obtained his PhD from the Biomedical Sciences-Immunology program at the Mayo Clinic Graduate School, is funded by the National Cancer Institute, Pharmaceutical Support, and holds a VA Merit Award studying approaches to enhance immune responses to cancer.

**MAMUKA KVARATSKHELIA, PHD**

Dr. Kvaratskhelia started his own research program at the Ohio State University in 2003 and joined the faculty of the CU SOM as a Professor in August 2017. He is an extremely resourceful and technically versatile biochemist, pharmacologist, and molecular virologist who has developed a very interactive research program that comprises both basic science and translational components. Dr. Kvaratskhelia has successfully investigated disparate parts of the HIV-1 life cycle, including retroviral integration into host chromatin, virus particle assembly, and interactions of retroviruses with the complex cellular milieu. He has been at the forefront of developing and elucidating the mode of action of a completely novel class of antiviral agents termed allosteric HIV-1 integrase inhibitors or ALLINIs. Dr. Kvaratskhelia is robustly funded by NIH and his findings are published in top tier journals including Cell, Science, PNAS, and others.

— community impact

The Department of Medicine is proud of our faculty's service to the local, national, and international community. The work they do **ranges from Denver-area clinics for underserved and refugee populations, to state-based rural and community health programs, to national advocacy efforts, and global health.**

New programmatic efforts in the global health arena took shape in 2017 with the appointment of Ali I. Musani, MD, FCCP as Vice Chair, Global Health in the DOM. Dr. Musani established and leads the new Global Health Program (GHP) whose mission is to reduce local and global health inequities through collaborative efforts in education, research, patient care, and community engagement.

GLOBAL HEALTH

GHP has established multiple collaborations to offer training in different cultural, religious, and social environments, including Philippines and Nepal, and to expand the horizons of clinical and social experiences within the DOM. Additional collaborations are underway in Guatemala and India, with plans to expand to Malaysia and Egypt.

Global health efforts continue with the DOM's Colorado - Zimbabwe International Exchange (CoZIE) program. The well-established bilateral exchange program between the DOM and the Department of Internal Medicine in the University of Zimbabwe College of Health Sciences (UZCHS) provides diverse experiences in:

- › internal medicine practice
- › clinical teaching
- › research mentorship for DOM faculty and postgraduate trainees
- › broadens clinical teaching and clinical research experiences for postgraduate trainees at UZCHS.



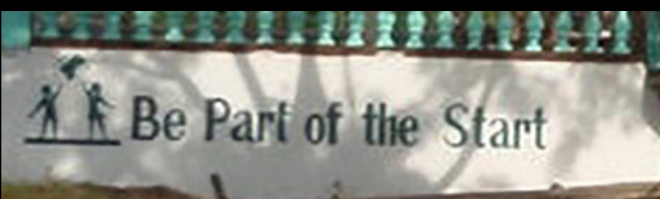
Ali I. Musani, MD, FCCP
Vice Chair, Global Health
Department of Medicine
Director, Interventional Pulmonology
Professor of Medicine and Surgery

For more information see [DOM Global Health](#)

“

Trainees are challenged to think globally, to understand health disparities, and to serve humanity beyond borders.”

– Dr. Musani



affiliates



-
- › New Rocky Mountain Regional Medical Center opened summer 2018
 - › Referral center for veterans in Colorado, Wyoming, Montana, Utah, Oklahoma, and Western Kansas
 - › VA Medicine Service provides clinical care, education, and research in 11 subspecialty disciplines at the Medical Center
 - › Primary Care Service provides comprehensive clinical care at the Medical Center, Clermont Campus, and Community-Based Outpatient Clinics
-

2018 DEPARTMENT OF MEDICINE (DOM) ACCOMPLISHMENTS

- › Complete relocation of the Medicine Service's inpatient, outpatient, procedural, and research activities to the new, \$1.7 billion Rocky Mountain Regional Medical Center
- › Continued success in VA research funding, with an increase in grant applications and a 60 percent increase in VA-funded investigators since 2012. Continued funding of the VA's Center for Innovation for Veteran-Centric and Value-Driven Care (a collaboration with the Seattle VA), and the Geriatrics Research, Education and Clinical Center (GREC), the first newly funded VA geriatrics center in over 20 years
- › Outstanding inpatient quality of care and patient safety, including significant reductions in health care-associated infections

EYE ON THE FUTURE

- › Establishment of a new Spinal Cord Injury Center, with 30 inpatient beds and an outpatient facility supported by Pulmonary and Hospital Medicine
- › Planning for a multi-disciplinary Cardiopulmonary Rehabilitation Service, providing services to veterans throughout the region
- › Focus on specialty care given to veterans in remote locations using video and audio technology



- › 105 physicians, 28 advanced practice providers, and 13 divisions including dermatology, neurology, and occupational medicine
- › Integrated safety net health care delivery system
- › 525-bed hospital, 10 neighborhood community health centers, 17 school-based clinics, Denver's 911 system, and its public health department

2018 DOM ACCOMPLISHMENTS

- › Continued growth, with two new division heads, a strong new administrative team, and growth in net operating revenue from clinical operations
- › Faculty continues to excel in teaching, including participation in Denver Health's innovative Longitudinal Integrated Curriculum for third-year students, and had ongoing success in securing extramural funding for research

EYE ON THE FUTURE

- › Clinical focus will continue to shift to outpatient care. Construction on a 293,000 square foot \$157M Outpatient Medical Center is underway with an anticipated move in date of Spring 2020
- › Expansion in intramural funding of academic activities is expected in early 2019



National Jewish Health is the leading respiratory hospital in the nation and the only health care organization to be fully focused on respiratory related illnesses.

EYE ON THE FUTURE

- › Recruitment of new chair for the Department of Medicine
- › Increase the number of associated Respiratory Institutes across the US
- › Expand the Medicine Office of Research

2018 DOM ACCOMPLISHMENTS

- › *U.S. News & World Report* #1 Ranking in Pulmonology, shared with the University of Colorado
- › Integrated program in interventional pulmonary medicine
- › Grant portfolio over \$70 million

key department initiatives

The Department of Medicine continues to invest heavily in our faculty, ensuring we create a culture and climate that allows everyone to thrive.

These three initiatives make up a multi-faceted approach, providing resources and programmatic support to faculty across all divisions.

DIVERSITY & JUSTICE

Focus on diversity and equity allow all stakeholders to better relate to persons of different backgrounds, expands our perspectives, and helps us become better citizens. We are deeply committed to increasing diversity of the physician and research workforce and to creating an environment where everyone matters and all voices are equally heard.

Led by Sonia Flores, Vice Chair Diversity and Justice, a few notable program achievements include:

- › Programmatic pipeline efforts have helped increase diversity of housestaff by 11 percent over the past eight years and diversity of our interns by nearly 18 percent
- › Commitment to department wide implementation of Bias Reduction in Internal Medicine (BRIM)
- › Sustained commitment to Pipeline Programs
 - » Department of Medicine Research and Equity in Academic Medicine (DREAM)
 - » Graduate Experiences for Multicultural Students (GEMS)



We are deeply committed to increasing diversity of the physician and research workforce and to creating an environment where everyone matters and all voices are equally heard.”

For more information see [DOM Diversity and Justice](#)



PROGRAM TO ADVANCE GENDER EQUITY (PAGE)

Since its inception in 2016, PAGE, under the leadership of Margaret Wierman, MD, has made significant efforts to assess and enhance Department processes that support equity for all faculty. Two workgroups with guidance from the PAGE steering committee are tasked with assessing and addressing areas where gender may be a factor in inequity. Initial work by committee members on transparency and assessment:

- › Salary
- › Division incentive plans
- › Leadership positions and opportunities
- › Professional development programs specific to women

Ongoing efforts continue and the DOM recognizes the 50 committee members and leadership of the two workgroups
Implementation - Drs. Marisha Burden and Kika Sucharov, Compensation - Drs. Sarah Faubel and Cecile Rose

PAGE efforts recognized nationally with the abstract - *Changing the Culture of Gender Equity in the DOM and SOM at the University of Colorado Anschutz Campus* accepted for poster presentation at the AAMC November 2018 - Women in Medicine and Science.

WELLNESS

While efforts have always been made to ensure DOM faculty and staff wellbeing, a growing national focus on physician burnout prompted questions around the extent to which this trend might impact the DOM. In 2018, the Department launched a targeted effort to evaluate how we are creating, cultivating, and sustaining a culture that promotes the ability for individuals and teams to continually expand their capacity to achieve the results they desire – personally and professionally.

Launched by Marc Moss, MD with a transition of leadership in late 2018 to Drs. Patrick Kneeland, CT Lin, Katherine Morrison, and Katherine McPherson, the Department wellness efforts focus on five domains — culture of wellness, education and training, personal resilience, improving practice efficiency and reducing bureaucracy — the strategic path forward will be developed and expanded in early 2019.

For more information see [DOM Program to Advance Gender Equity \(PAGE\)](#).

faculty advancement

INVESTING IN OUR FACULTY

Since its inception in fall 2015, under the guidance of Cara Wilson, MD, the Department of Medicine has been **committed to providing resources, targeted services, and programs that promote career advancement and elevate the success of faculty** in varied stages of their careers and in each of the unique dimensions of our mission.



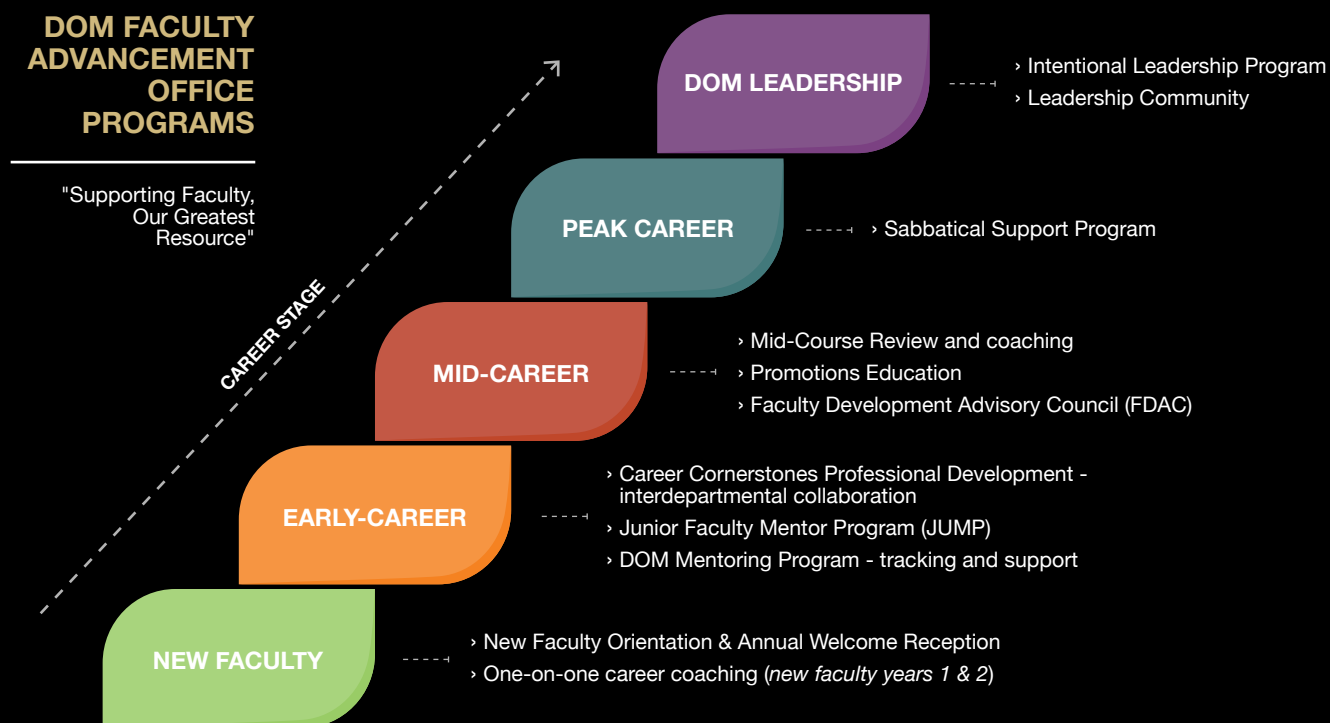
Cara Wilson
MD, Vice Chair for Faculty
Advancement 2015 – 2018
2019 Executive Vice Chair



Greg Austin
MD, MPH, Director Junior
Faculty Development



Penny Archuleta
MA, Director Faculty
Advancement Office





FY18 KEY ACCOMPLISHMENTS AND NEW PROGRAMS:

- › 189 new faculty on-boarded, 69 faculty members promoted, 39 completed the mid-course process.
- › Junior Faculty Mentor Program (JUMP) – a shared learning experience for those working with their first mentee, cultivating a community of mentors and learning of mentoring skills. Approximately 100 junior faculty members have participated.
- › Career Cornerstones – provides early career faculty foundational skills for success in academic medicine. Delivered in partnership with the Departments of Pediatrics, Radiology, Ophthalmology, and Emergency Medicine to support cross-department collaboration and networking.
- › Intentional Leadership – Cohorts 1-3 targeted established DOM senior leaders for a cohort structured, six-month program supported by individual coaching for each participant. 80 percent of DOM senior leaders completed.

2017-2018 PROGRAMMATIC HIGHLIGHTS:

Launched in unison with the Faculty Advancement Office, the Faculty Development Advisory Council (FDAC):

- › provides a conduit for two-way communication between the DOM and Division faculty on advancement programs, DOM initiatives, and faculty needs.
- › encourages use of best practices and consistency of approach in career development and mentoring within and across similar divisions (for example; size, composition, and individual faculty tracks).

EYE ON THE FUTURE

Through ongoing efforts to build, reinforce, and support a culture of learning, engagement, and professional achievement the DOM fosters and sustains professional development opportunities for all faculty.

2019 includes Career Cornerstones - cohort 2, new faculty orientation, JUMP, the DOM early career mentoring program, and other strategic programming.

For more information see [DOM Faculty Advancement Office](#)

— financial report FY '18

The Department of Medicine (DOM) benefits from having a **diverse set of revenue streams: clinical income, research grants, state appropriations, UCH support, philanthropy, and contracts.** Balance and alignment of these revenue streams has ensured our Department and Divisions have been fiscally solvent over the past eight years, allowing us to successfully support our DOM mission and vision including:

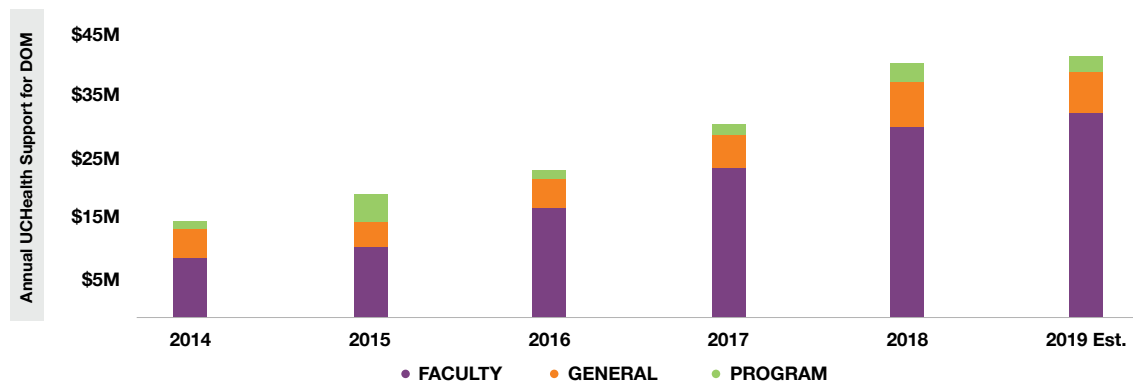
- › Alignment with Department and School: Over the past eight years, \$50M of support for our Divisions from the DOM and SOM, in addition to \$42M SOM support provided directly to DOM faculty
- › \$40M UCHHealth University of Colorado Hospital support to our Divisions and faculty for program development, establishing us as one of the premier medical centers in the country
- › Philanthropy and partnership with CU Advancement, Anschutz: 12 **new** chairs in DOM and 11 **new** endowed chairs occupied by DOM faculty in University Centers and Institutes over the course of past eight years

UNIVERSITY OF COLORADO PARTNERSHIP (UCHealth)

Since 2014, UCHealth has made annual contributions to the CU SOM's academic mission through an Academic Support Agreement. **These funds support critical ongoing research and education initiatives.**

Shared Commitment to Academic Development [UCHealth Support]

Excludes GME Support (\$11M)



The DOM also receives ongoing (and increasing) direct support from UCHealth in support of its clinical operations including:

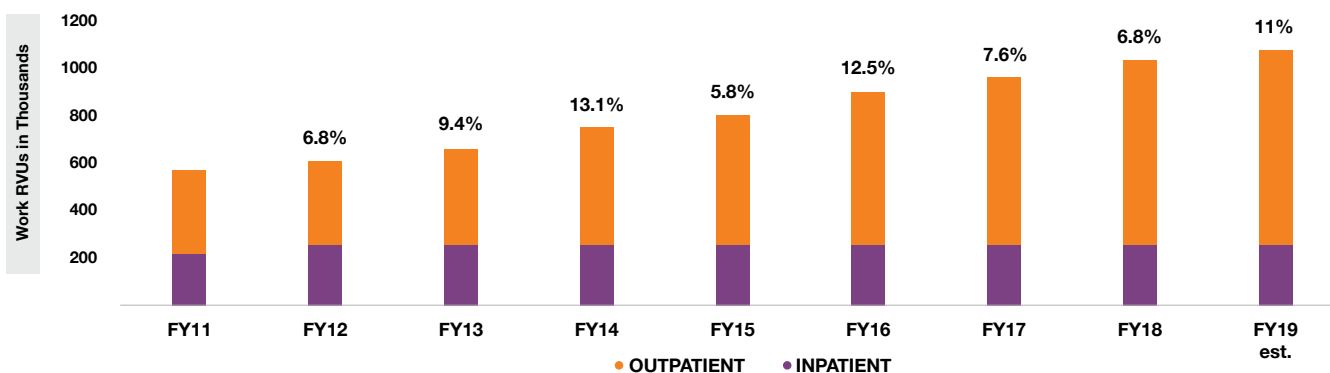
- › innovative clinical, educational, and research programs
- › support for our faculty members through the Research and Faculty Advancement Offices

Growth of Clinical Enterprise

[work RVUs in thousands]

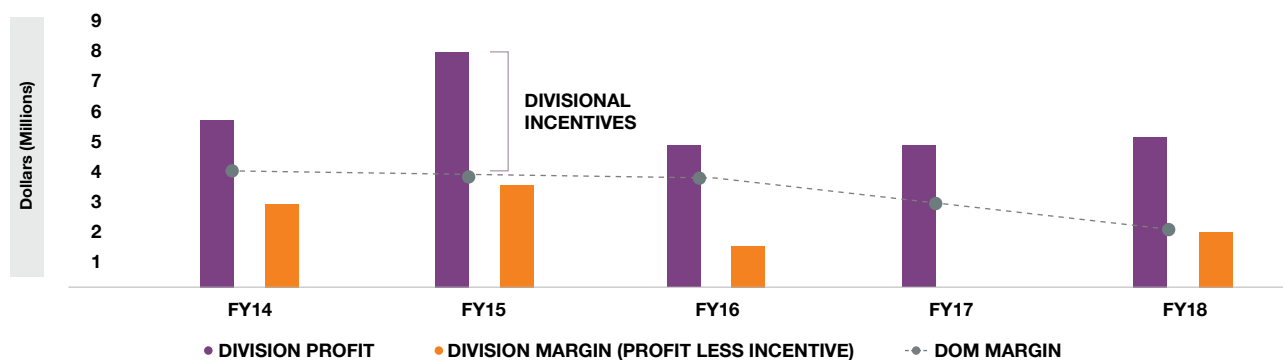
SINCE 2011

— 100% Increase in wRVUs (>1 million wRVUs)



Fiscally Solvent - Departmentally

The Department of Medicine remains fiscally solvent.



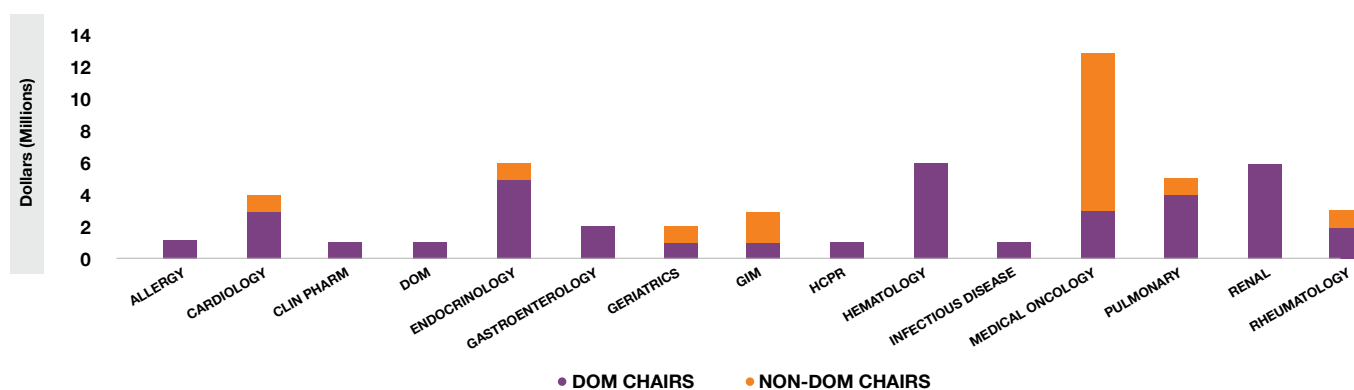
WITH GRATITUDE

We gratefully acknowledge the many donors contributing to the success of the DOM through Endowed Chairs (and other endowed funds). These endowments enable our faculty to be creative in research and program development.

In partnership with the CU Advancement Office:

- › 37 DOM Endowed Chairs with endowed funds for FY18 totaling \$140M (12 new chairs since 2011)
- › Our faculty members also hold 18 endowed chairs (11 new since 2011) managed outside of the department, including the Center for Women's Health Research, the CU Cancer Center, and others

Shared Commitment to Academic Development [CU Foundation Support]



For more information see [DOM State of the Department](#)



Department of Medicine

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS



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