

ACCELERATING EXCELLENCE

DEPARTMENT OF MEDICINE
2017/2018 **ANNUAL REPORT**

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2017 - 2018 ACCOMPLISHMENTS

Patient Care	Research	Education
<ul style="list-style-type: none"> > Fifty-two Department of Medicine full-time faculty members were recognized as “Top Doctors” by Castle Connolly Medical Ltd. and <i>Cleveland Magazine</i>. > The Department once again achieved successful representation in seven specialties reported in the 2017-2018 <i>U.S. News & World Report</i> annual ranking. > The annual Medicine Quality Summit built upon past successes and brought together a broad cross-section of providers with a focus on new and continued challenges facing high-quality care. > Physician gross patient charges surpassed year-over-year gross patient charges by 5% while the department placed a heightened focus on improving patient experience through increased ease of access to their providers of choice and location. 	<ul style="list-style-type: none"> > Awarded funds to departmental faculty, including University Hospitals Cleveland Medical Center, Case Western Reserve University and Louis Stokes Cleveland VA Medical Center, exceeded \$85 million. > Research awards again favored the highly competitive and prestigious national venues with nearly 60 percent coming from federal sources. > Continuing into its 6th year, the Harrington Physician-Scientist Pathway recruited 2 new residents. This pathway develops a new generation of leaders in medicine by offering training in basic, clinical and translational research. > Participation in the Department of Medicine’s intramural research-related activities such as Research Day, the Team Science Challenge and mentorship programs remained strong. 	<ul style="list-style-type: none"> > The Medical Services at University Hospitals and the Cleveland VA Medical Center are the most popular sites for third and fourth year CWRU medical students completing Clerkships and Acting Internships in Internal Medicine. Ninety-six CWRU students completed the core IM Clerkship at UH/VA and one hundred CWRU students completed Acting Internships in 2017-2018. > The Internal Medicine residency had a highly successful intern recruitment, matching forty-two students who were highly ranked. > Education leaders in the Department of Medicine had multiple regional and national presentations of scholarly work and conducted several workshops at national meetings. > Our residents who chose subspecialty training had a spectacular subspecialty match in 2017, with residents matching to Columbia Presbyterian, University of Virginia, Mt. Sinai/Icahn, Washington University, Duke University, University of Washington, Stanford University and University of Michigan.



CHAIRMAN'S MESSAGE

ROBERT SALATA, MD, FACP, FIDSA
> CHAIRMAN, DEPARTMENT OF MEDICINE

Senior level recruitment, increasing our research portfolio and enhancing our robust educational programs will be major points of emphasis in the next academic year.

WELCOME TO THE ANNUAL REPORT OF THE DEPARTMENT OF MEDICINE FOR THE ACADEMIC PERIOD 2017–2018. Our faculty, staff and trainees had an outstanding year in advancing our clinical, research and teaching missions. Research support within the Department of Medicine remains strong with overall grant awards for the department at \$85.5 million for academic year 2017–2018 with 60% of awards related to the National Institutes of Health and other federal sources. This represents a broad portfolio of research across the divisions, centers and institutes ranging from molecular mechanisms of disease, discovery and innovation, and national and international clinical trials as well as an increased emphasis on health service research and population health. Divisions highly invested in our research mission include Infectious Diseases & HIV Medicine, Cardiovascular Medicine, Gastroenterology & Liver Disease and Hematology & Oncology. Mukesh Jain, MD, through his appointment as Chief Academic Officer for University Hospitals, will focus on the infrastructure supporting translational and clinical research as well as population health. New recruitments of senior level faculty in Rheumatology, Nephrology, Hematology-Oncology, Geriatrics and Diabetes & Obesity will enhance our research profile and funding in the Department.

In 2017–2018, the department again sponsored strong intramural research-related initiatives. Three additional Team Science Challenge grants were awarded to departmental faculty (Clark Distelhorst, MD and Eli Bar, MD; Folashade Otegbeye, MD, MPH and Andrew E. Sloan, MD, FACS; and Aman Rajpal, MD and Mohammad Q. Ansari, MD) to stimulate interdisciplinary translational research between divisions and departments. Over 150 faculty and trainees attended the ninth annual Department of Medicine Research Day and our residents, fellows, graduate students and postdoctoral investigators presented over 115 posters.

The Harrington Discovery Institute at University Hospitals in Cleveland, Ohio – part of The Harrington Project for Discovery & Development – continued to expand by supporting 90 physician-scientist research programs across the nation and in the UK, including investigators at Case Western Reserve University. The Institute solidified high-impact relationships with the Alzheimer's Drug Discovery Foundation and the Foundation Fighting Blindness, while further strengthening ties with the University of Oxford. In partnership with the American Society of Clinical Investigation, the fifth annual Harrington Prize for Innovation in Medicine was awarded in 2018, garnering national attention as a mark of innovation and creativity.

The department's clinical programs continue to grow in both volume and quality. Our faculty members admitted over 32,000 patients and provided nearly 200,000 physician service visits between University Hospitals Health System and the Louis Stokes Cleveland VA Medical Center. Gross patient charges rose by 6% compared to 2017 and in 2018, the Department was ahead of budget by \$2.3 million. There is more emphasis on clinical program development, recruitment and alignment of faculty in University Hospitals Medical Group (faculty) and University Hospitals Medical Practices (community physicians). Patient services volume per physician, as measured by Medicare's relative value unit system, increased on average by 6 percent to 74 percent. Increasing focus on patient experience, high-reliability medicine and value-based reimbursement will be one of the major points of emphasis in the next academic year.

Fifty-two of our full-time faculty members were awarded "Top Doctor" status by *Cleveland Magazine* in 2018. The eighth annual Medicine Quality Summit was held in September 2018 and built upon the successes of previous summits with a focus on quality metrics and contemporary health care reform. Our clinical activities are led by Rajesh Chandra, MD, in his role as Vice Chair for Clinical Affairs & Transformation. In 2019, a new Vice Chair of Clinical System Activities will be created with the System seeing 1.3 million patients at 18 institutions. The department, along with our Quality Institute, is highly involved in major quality initiatives at the programmatic, physician and trainee levels.

Our educational programs led by Keith Armitage, MD remain enormously robust and are strongly supported by our faculty. The 2018 match was again highly successful with a substantial increase in total applications. This academic year marked the third wave of residents admitted to our enhanced and successful Harrington pathway to fast-track into the ACGME-endorsed program for physician-scientists. This year also marked the strongest subspecialty match ever. University Hospitals Cleveland Medical Center remained by a wide margin the top choice for our medical students completing internal medicine acting internships. Our full-time faculty members continue to provide nearly 30 percent of the total teaching time at Case Western Reserve University School of Medicine. Three additional medicine faculty members were selected as Master Clinician Educators in the spring of 2018 (Teresa Carman, MD, Barbara Gripshover, MD and Cliff Packer, MD). This list of 24 total faculty, developed over 8 years, truly represents our department's clinical and educational Hall of Fame. This year, 5 Departmental faculty (Keith Armitage, MD, MACP, Barry Efron, MD, Jeffry Katz, MD, Anthony Post, MD and Paula Silverman, MD) were named to the inaugural class of 36 Distinguished UH Physicians and Surgeons.

In the next academic year, we have plans to enhance the mentoring programs for young faculty and residents (with a coaching program involving 36 faculty) as well as increase our activities in the recruitment of women and minorities among our faculty and trainees. To enhance our programs in diversity and faculty development, Usha Stiefel, MD, will continue to lead department-wide initiatives as Vice Chair for Diversity & Faculty Development. In addition, we plan to establish new high-level priorities in the clinical and research realms of diabetes, obesity, bone disease, hypertension, adult asthma, cystic fibrosis, congenital heart disease, end-stage renal disease and respiratory health as well as focus on our strengths in cancer, cardiovascular medicine, infectious diseases, and gastroenterology and liver diseases.

I invite you to become more familiar with our department by examining this report and by visiting our website at: medicine.case.edu.

It is my distinct honor and pleasure to lead our outstanding faculty, staff and trainees.

Respectfully,

Robert A. Salata, M.D.

Robert Salata, MD, FACP, FIDSA
 Professor and Chairman
 Department of Medicine
 STERIS Chair of Excellence in Medicine
 Physician-in-Chief
 Master Clinician in Infectious Diseases
 University Hospitals Cleveland Medical Center
 Case Western Reserve University

DIVISION OF CARDIOVASCULAR MEDICINE

SANJAY RAJAGOPALAN, MD, FACC, FAHA
> DIVISION CHIEF



Clinical programs in interventional cardiology, imaging, electrophysiology, advanced heart failure, vascular medicine and critical care has seen record growth and continue to see some of the sickest patients in Northeast Ohio.

THE 2017-18 ACADEMIC YEAR HAS BEEN NOTABLE FOR SIGNIFICANT ACCOMPLISHMENTS IN OUR RESEARCH, CLINICAL CARE AND EDUCATION PROGRAMS. Clinical programs in interventional cardiology, imaging, electrophysiology, advanced heart failure, vascular medicine and critical care has seen record growth and continue to see some of the sickest patients in Northeast Ohio. Notable highlights have been outstanding growth in our ambulatory practice and in new patient visits. A new dedicated program in integrated Intensive Care was unveiled this year and is rapidly making inroads in establishing new paradigms of care for the most critically ill. We are set to inaugurate the first Advanced Integrated Interventional and Imaging Unit in early 2018 with preparations underway. This new center will be the only center in North America to provide access to state of the art advanced imaging technology (CT and MRI) juxtaposed with a hybrid operating room that will allow integrated imaging-based intervention.

In 2017, the Cardiovascular Research Institute (CVRI) continued to see large increases in our research portfolio with >\$10 million in research dollars. The CVRI currently boasts a total of 35 NIH awards with 12 RO-1 grants (\$6 million), a prestigious outstanding investigator award (R35), 3 career development awards (K-level awards), a T32 training grant and multiple foundation awards. A total of 6 trainees are supported with training grants from the NIH. Researchers also hold a significant number of industry and foundation awards. The Center for Innovation and Research allows our patients to benefit from cutting edge therapies with access to more than 90 clinical trials that offer the latest breakthrough therapies for cardiovascular disease. The publication record for CVM has been stellar with 176 published papers in peer reviewed journals in 2017.

The division's commitment to medical education and outreach continues with a world class Annual Cardiovascular Disease Update in the fall of 2017 which boasted the largest audience to date since its inception. Our fellowship training program has been immensely successful in recruiting top notch trainees from around the world. Many of our faculty received teaching awards in 2017. The division currently boasts 4 elected American Society of Clinical Investigation (ASCI) members and one member elected to the Institute of Medicine.



DIVISION OF
**CLINICAL &
MOLECULAR
ENDOCRINOLOGY**

BAHA ARAFAH, MD
> DIVISION CHIEF

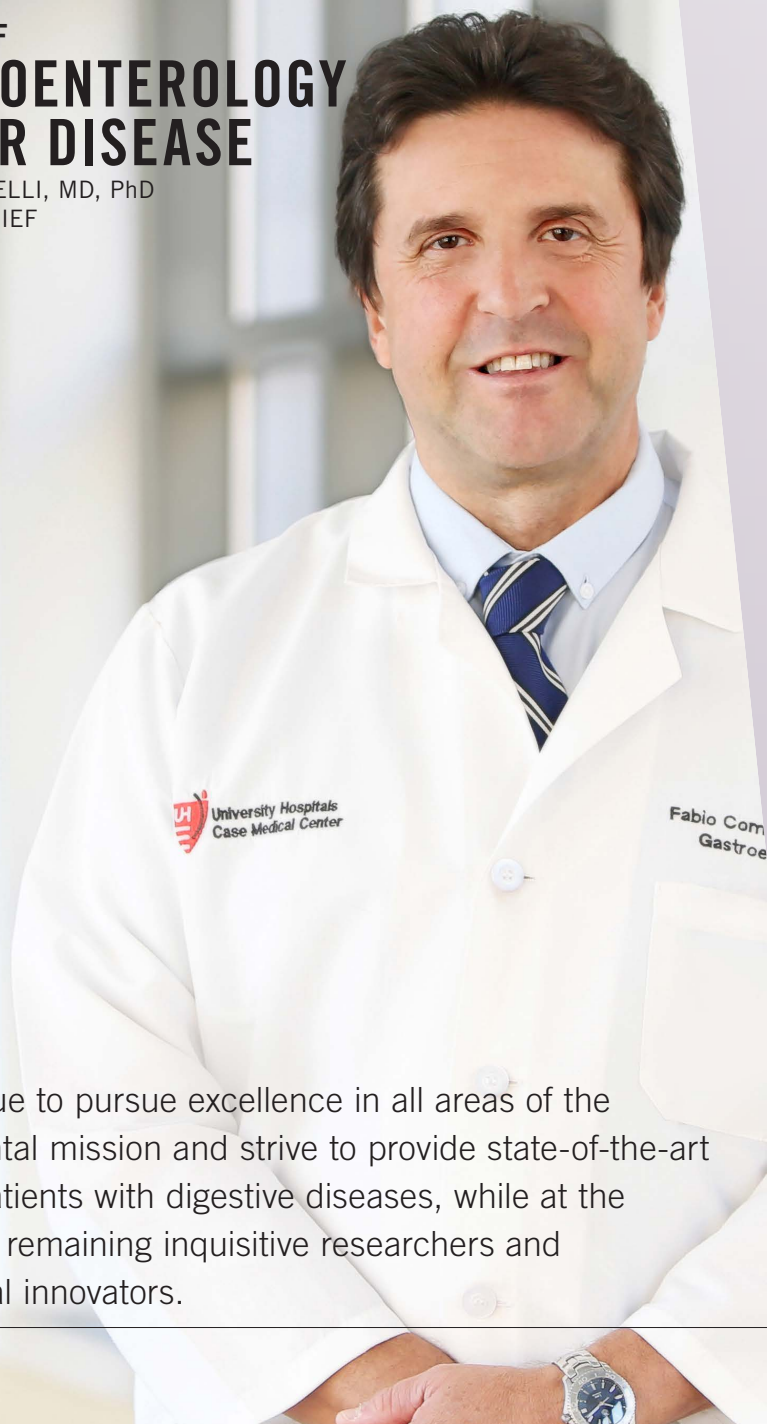
THE PRIMARY MISSION OF THE DIVISION OF ENDOCRINOLOGY IS TO CONTINUE TO ACHIEVE EXCELLENCE IN PROVIDING OUTSTANDING PATIENT CARE, ADVANCING THE FIELD THROUGH BASIC AND TRANSLATIONAL RESEARCH AND ALSO EDUCATING THE NEXT GENERATION OF LEADERS IN OUR SPECIALTY. The Division's internationally renowned investigators have made important scientific contributions in basic science and clinical research projects covering several disease-specific disciplines within our specialty such as diabetes mellitus, thyroid illnesses as well as diseases of the pituitary and adrenal glands. Some of our faculty members have had a leading role in the planning and execution of several recent, NIH-sponsored nationwide clinical trials addressing diabetes management and its complications. These landmark studies have had a major impact on clinical practice as they have introduced a new paradigm in the management of some endocrine disorders such as diabetes mellitus.

Faculty members offer clinical expertise in all disciplines of the specialty and many are internationally recognized in their respective fields. A unique and important feature of our faculty is that some have secondary appointments in basic science departments such as Biochemistry and Pharmacology. This unique interaction has helped promote collaboration on furthering translational research within the Division. It is quite remarkable to be among a group of highly dedicated physicians who are compassionate about delivering the best medical care to their patients and at the same time passing that trait to the next generation of endocrinologists. In advocating a patient-centered approach in the management of endocrine diseases, our faculty have been recognized nationally for their efforts in promoting the need for integrating the social setting of our patients as well as their educational, economical and personal choices in designing therapeutic interventions.

The educational and training program emphasizes the importance of understanding basic physiological mechanisms along with deep and thorough appreciation of a patient's individuality. The training program also emphasizes independent learning, inquiry, debate and critical appraisal of the literature. Our trainees have had successful careers in academic institutions as well as in clinical practice.

DIVISION OF GASTROENTEROLOGY & LIVER DISEASE

FABIO COMINELLI, MD, PhD
> DIVISION CHIEF



We continue to pursue excellence in all areas of the departmental mission and strive to provide state-of-the-art care for patients with digestive diseases, while at the same time remaining inquisitive researchers and educational innovators.

THE DIVISION OF GASTROENTEROLOGY AND LIVER DISEASE CONTINUES TO BE AN INTERNATIONAL LEADER IN CLINICAL RESEARCH, EDUCATION AND COMMUNITY SERVICE.

The following programs continue to flourish with important accomplishments and publications: the Cleveland Digestive Diseases Research Core Center, Program Project Grant: Innate Immunity and Experimental Crohn's Disease and the Barrett's Esophagus Translational Research Network (BETRNet) Research Center.

The division continues to be successful in large multi-disciplinary National Institutes of Health grants:

- > Digestive Diseases and Metabolism: P30 Center (PI: Fabio Cominelli, MD, PhD)
- > Inflammatory Bowel Disease: P01, R01 (PI: Fabio Cominelli, MD, PhD)
- > Barrett's Esophagus: U54 (PI: Amitabh Chak, MD)
- > Gastrointestinal Cancers: P50 (Co-PI: Amitabh Chak, MD)
- > Stent vs. Indomethacin for Preventing Post-ERCP Pancreatitis: The SVI Trial (Co-I: Amitabh Chak, MD)
- > Education and Training: T32 and T35 (PI: Fabio Cominelli, MD, PhD)
- > Developing Innovative Gastroenterology Specialty Training (DIGEST): Cystic Fibrosis Foundation (PI: Linda Cummings, MD)
- > Adipose Stem Cells and Crohn's Disease: DoD PRMRP Discovery Award (PI: Maneesh Dave, MD)
- > Mesenchymal Stem Cells and Experimental: Crohn's Disease K08 (PI: Maneesh Dave, MD)
- > Role of TWEAK/Fn14 in the Pathogenesis of Experimental IBD: CCFA Fellowship Award (PI: Luca Di Martino, PhD)

The division's clinical activity remains highly productive, providing integrated care within the primary and secondary markets, which have further expanded the development of our clinical programs to the east and west sides of Cleveland. This clinical expansion includes a hepatology clinic on the far west side of Cleveland and the introduction of a telemedicine initiative within hepatology.

We continue to pursue excellence in all areas of the departmental mission and strive to provide state-of-the-art care for patients with digestive diseases, while at the same time remaining inquisitive researchers and educational innovators.

DIVISION OF GENERAL INTERNAL MEDICINE

RAJESH CHANDRA, MD, FHM
> DIVISION CHIEF



IN ACADEMIC YEAR 2017-18, THE DIVISION OF GENERAL INTERNAL MEDICINE CONTINUED TO MAKE VALUABLE CONTRIBUTIONS TO PATIENT CARE, QUALITY AND PROCESS IMPROVEMENT AND MEDICAL EDUCATION.

At University Hospitals Cleveland Medical Center, our Hospitalist faculty who manage nearly a third of the Department of Medicine's inpatients, had a Length of Stay index of 1.01 and Mortality index of 0.39 (observed/expected values), ranking their outcomes in the Top 25% of the Vizient hospital database when compared to their peers. In addition, they co-led several process improvement initiatives that included a system-wide Blood Management Program which uses evidence-based restrictive transfusion policies to encourage cost-effective and safe blood transfusion practices and a Telemetry Optimization Initiative that looks to decrease unnecessary telemetry utilization by using a locally developed electronic telemetry ordering algorithm based on American College of Cardiology guidelines.

As occurs every year, several of our Primary Care faculty were honored as *Cleveland Magazine's* "Top Doctors" and had outstanding patient satisfaction scores at the 98th percentile.

At the Louis Stokes Veterans Affairs Medical Center, the Section of Acute Medicine saw tremendous success with inter-facility expansion of the GERI-VET program which attempts to avoid admissions by providing point of care social, mental health and homecare services to geriatric veterans presenting to the Emergency Department. Additional successes included a first of its kind Veterans care program that provides Suboxone Detoxification services directly from the emergency department.

The Section of Primary Care continued to enhance healthcare delivery in a patient-centered medical home framework using an indigenous and innovative scheduling prediction model that improves access and a Panel Retention IT tool that helps patients remain actively engaged with their primary care provider.

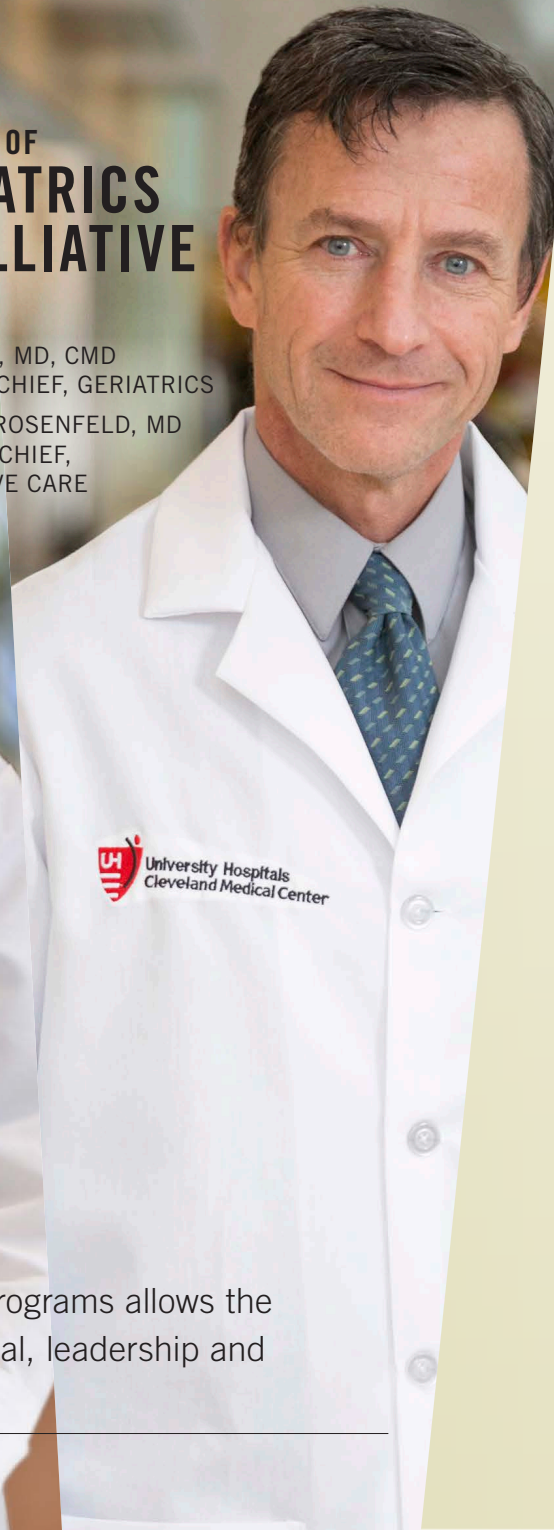
The Section of Women's Health was recently awarded two million dollars to develop a Mobile Mammography Program that will provide mammography services throughout northeast Ohio, to over a thousand women veterans close to their homes.

Finally, this past year, in keeping with our faculty's well-recognized traditional excellence as teachers, our clinician-educators were honored with both the Inpatient and Outpatient Teacher of the Year awards and one of our senior faculty members also received the Department's most prestigious Master Clinician Educator Award.

Our faculty are proud of their service to our patients and the medical community and remain committed to providing high-quality healthcare and superior medical training.

DIVISION OF GERIATRICS & PALLIATIVE CARE

TARYN LEE, MD, CMD
 > INTERIM CHIEF, GERIATRICS
 KENNETH ROSENFELD, MD
 > SECTION CHIEF,
 PALLIATIVE CARE



The rich array of clinical programs allows the basis for unique educational, leadership and research opportunities.

THE DIVISION OF GERIATRICS AND PALLIATIVE CARE AT UNIVERSITY HOSPITALS CLEVELAND MEDICAL CENTER ENGAGES IN CLINICAL SERVICES, EDUCATIONAL PROGRAMS AND RESEARCH ACTIVITIES AIMED AT IMPROVING CARE FOR OUR PATIENTS.

We continue to offer exceptionally diverse clinical services that include: inpatient care on the ACE (Acute Care for the Elderly) Service, outpatient geriatric assessment at Foley ElderHealth Center, home visits to homebound patients through the UH HouseCalls program, coordinated care through McGregor PACE (Program of All-Inclusive Care for the Elderly), skilled nursing care at Hanna House and Judson Park, long term care at McGregor Gardens/Overlook, Geriatric Co-Management Service and Palliative Care Consult Services.

New divisional highlights include:

- > Successful collaboration of the Geriatric Co-Management Service with the Trauma and Cardiology teams
- > Expansion of the House Calls program to areas west of Cleveland
- > Addition of a UH fellowship trained geriatrician to McGregor PACE
- > Clinical research activities with UH's Quality Institute

With the recruitment of Dr. Kenneth Rosenfeld, a nationally recognized leader in Palliative Medicine to UH, the section of Palliative Care is engaged in the following strategic initiatives:

- > Completion of a \$1.6 million Center for Medicare and Medicaid Innovation-funded demonstration project that provided comprehensive outpatient palliative care intervention for patients with newly-diagnosed, advanced solid tumors
- > Consolidation of the UH-CMC and Seidman Cancer Center palliative care teams into a single service
- > New inpatient palliative care/hospice unit
- > Development of a palliative care fellowship program
- > Early proactive palliative care consultation for high-risk ICU admissions

The rich array of clinical programs allows the basis for unique educational, leadership and research opportunities. Research endeavors focus on geriatric education, patient outcomes, infection control, vaccine efficacy, delirium prevention and geriatrics collaborative care. Besides publications and presentations at specialty meetings, these clinical and research interests have enabled faculty to lead educational committees and spearhead clinical program initiatives at national conferences.

DIVISION OF HEMATOLOGY & ONCOLOGY

MATTHEW COONEY, MD
> INTERIM DIVISION CHIEF



THE DIVISION OF HEMATOLOGY AND ONCOLOGY'S MISSION IS TO PROVIDE THE MOST INNOVATIVE CARE LEVERAGING OUR BASIC SCIENCE EFFORTS PAIRED WITH NOVEL THERAPEUTIC TRIALS, TRAINING THE NEXT GENERATION OF PHYSICIAN LEADERS AND DELIVERING TRULY INTEGRATED ONCOLOGY CARE ACROSS THE SEIDMAN CANCER CENTER NETWORK. The Seidman Cancer Center is part of the Case Comprehensive Cancer Center which is a National Cancer Institute designated comprehensive cancer center.

Although the main hub is the Seidman Cancer Center located at University Hospital's main campus, the Division sees patients at 18 locations across Ohio. This enormous geographical footprint provides thousands of patients access to the latest clinical trials. In addition, Division faculty provide care and teaching at the Louis Stokes Cleveland VA Medical Center.

Our faculty's ambitions are diverse with efforts focused on basic science, clinical research, integrative oncology, health disparities research and implementing technology in cancer care delivery. Highlights include our GI Spore; Multi-disciplinary sickle cell service; Phase I research program; leading national trial for immunotherapy in bladder cancer; and leading ground breaking research, clinical trials and treatments in Bone Marrow Transplant and malignant hematology.

Education and training programs include:

- > ACGME-accredited Hematology & Oncology Fellowship program
- > Training residents, medical students, basic science graduate students, postgraduates
- > Divisional faculty also oversee an NCI-funded K12 training program for clinical investigators
- > NCI-sponsored T32 cancer biology training program.

The Division of Hematology and Oncology continues to build on a strong tradition of clinical excellence with the addition of two new malignant hematologist in late 2017, a new Genitourinary (GU) Oncologist who also treats Melanoma Cancer, a benign hematologist and a head and neck oncologist.

The Hematology and Oncology Faculty work in an integrated care model at the University Hospitals Seidman Cancer Center. We partner with our colleagues in Surgery, our Nurse Practitioners, Oncology RNs, pharmacists and countless others across all of our Seidman Cancer Center's sites to deliver compassionate care to our patients.

RESEARCH IN ANTIMICROBIAL RESISTANCE, HIV/AIDS AND TUBERCULOSIS REMAIN THE MAIN FOCUS OF THE DIVISION.

Faculty lead and are involved with major University-wide infectious disease programs including the AIDS Clinical Trials Unit (ACTU), Center for AIDS Research (CFAR), Center for Global Health and Diseases, CWRU-Cleveland VAMC Center for Antimicrobial Resistance and Epidemiology Studies (Case VA CARES), Geriatric Research Education and Clinical Center (GRECC), Tuberculosis Research Unit (TBRU) and Visual Sciences Research Center (VSRC). Research funding for 2017-2018 was \$17.7 million (\$12.1 CWRU, \$3.5 UH and \$2.1 VA & VA Foundation) with National Institutes of Health as the major source but is becoming increasingly diverse with funding from CDC, Bill & Melinda Gates Foundation, Fogarty International Center, industry, foundations and philanthropy. Uganda remains a major focus for our international research with extensions to South Africa. A national search for research faculty in HIV and TB is ongoing and is coordinated with Case VA CARES, which is recruiting in the area of antimicrobial resistance. The STERIS Foundation, CFAR and Roe Green gift provide pilot funding for new collaborative research. The Division, with the Center for Global Health and Disease, launched a new and successful weekly Global Health and Infectious Diseases research conference supported by our NIH and Fogarty training grants.

Clinical services continue to expand in the inpatient and outpatient arenas at the VA and in the UH system. In addition to HIV/AIDS care in the Special Immunology Unit supported by Ryan White funding, travel medicine and general ID, ID services are expanding for solid organ and bone marrow transplants with recruitment of two new full-time ID physicians, increasing our expertise in infections of the immune compromised. Demand for antimicrobial stewardship and infection control provide support and research opportunities for divisional faculty. The Roe Green Center for Travel Medicine and Vicki Tifft funding support international clinical activities.

Faculty remain active in 2nd year medical school teaching in the Block 5 microbiology and infectious diseases section, graduate courses, supervising PhD and MD-PhD students in their labs, serving on thesis committees and through clinical teaching to medical students, residents and fellows with continued high levels of positive feedback.

DIVISION OF INFECTIOUS DISEASES & HIV MEDICINE

W. HENRY BOOM, MD
> DIVISION CHIEF



THE DIVISION OF NEPHROLOGY AND HYPERTENSION EXCELS IN PROVIDING ALL ASPECTS OF CARE TO PATIENTS WITH KIDNEY DISEASE THROUGHOUT NORTHEASTERN OHIO. In 2018, the Division achieved the highest ranking in its history in the *US News and World Report* national rankings, reflecting outstanding clinical care and reputation at a national level. The Division has a longstanding relationship with the Centers for Dialysis Care (CDC), bolstered by two Master Clinician Awards funded by that organization and awarded to Dr. Donald Hricik and Dr. Thomas Hostetter. Members of the Division play key roles in the kidney and pancreas transplant programs at UH Transplant Institute, including active participation in outreach clinics that provide services for the evaluation of potential transplant recipients in Akron and Westlake. A new program that focuses on care of patients who have cancer and kidney disease is being launched this year. Clinical collaboration between UH Cleveland Medical Center and the Louis Stokes Cleveland Veterans Affairs Medical Center continues to be strong with Dr. Niraj Desai serving as section chief. New faculty recruits for 2018 include Dr. Priya Kalahasti who, in addition to general clinical nephrology, has an interest in alternative medicine and innovative new models for health care delivery.

The division has provided major leadership for key NIH-sponsored multicenter research trials including the Systolic Blood Pressure Intervention Trial and the Chronic Renal Insufficiency Cohort Study. Other areas of research include measurement of uremic toxins and other factors that influence the progression of chronic kidney disease and studying the association between kidney and cardiovascular disease. UH Cleveland Medical Center is a leading participant in a multicenter consortium enrolling patients into the NIH's Clinical Trial in Organ Transplant initiative. The division's members also hold prominent roles in scientific journals with Dr. Mahboob Rahman serving as Associate Editor of the *Clinical Journal of the American Society of Nephrology* and Dr. Thomas Hostetter serving as the Perspectives Editor of the *Journal of the American Society of Nephrology*.

The division has a successful training program for clinical nephrology fellows and an NIH training grant for the training of physician scientists. We are also accredited by the American Society of Transplantation to train fellows in transplant nephrology. Our trainees benefit from both bench and translational opportunities in a multidisciplinary environment encompassing the departments of medicine, pathology, physiology and biophysics. The ultimate goal of the division is to prepare tomorrow's academic physicians, scientists and clinician-educators to continue our legacy.

DIVISION OF NEPHROLOGY & HYPERTENSION

MAHBOOB RAHMAN, MD
> INTERIM DIVISION CHIEF

In 2018, the Division achieved the highest ranking in its history in the *US News and World Report* national rankings, reflecting outstanding clinical care and reputation at a national level.



“BREATHING BETTER, SLEEPING WELL”. We strive to be a national leader in the delivery of exceptional-quality respiratory care to residents and visitors of Northeast Ohio through an integrated clinical practice, disease-focused centers of excellence, innovative research and professional education.

Under the leadership of Rodney Folz, MD, PhD, we have continued to develop and expand our respiratory care services offered at University Hospitals Cleveland Medical Center as well as throughout UH Hospitals community locations. It is our mission to improve both lung and sleep health throughout the communities we serve.

We have successfully transitioned UH-CMC MICU into a brand new, state-of-the-art, 20 bed ICU. Our multidisciplinary programs remain the cornerstone of success for our division and provide a full range of services from the diagnosis and management of common conditions to state-of-the-art distinguishing technologies to treat the most complex cases. Our clinical expertise includes lung nodules/cancer, cystic fibrosis, chronic obstructive pulmonary disease, asthma, pulmonary hypertension, lung transplantation, sleep studies, pulmonary vascular disease, allergic lung disease, interstitial lung disease, pulmonary rehabilitation, bronchoscopy and advanced pulmonary function testing. We have initiated a high reliability medicine program focused on reducing COPD acute exacerbations and readmissions.

Our Division boasts a science-based research enterprise with numerous active investigations in clinical, translational and basic research at UH-CMC, the Louis Stokes VA Medical Center and Case Western Reserve University. Many of our faculty are internationally recognized and accomplished physician-scientist investigators. The impact of the division’s research programs can be seen in publications and grant support. Major areas of research emphasis are in “Control of Breathing”, “Pulmonary Immunology and Inflammation”, “Neurotherapeutic Therapy for Sleep Disordered Breathing”, “Pulmonary Artery Hypertension and Acute Lung Injury and Hypoxemia”, “Early Diagnosis and Treatment of Sepsis”, “Asthma in Older Adults: Identifying Phenotypes and Factors Impacting Outcomes”, “Spinal Cord Injury and Respiratory Function” and “Brainstem Inflammation and Sepsis”.

The Division maintains 3 clinical fellowship programs: (1) Pulmonary/Critical Care, (2) Sleep Medicine and (3) Allergy/Immunology. Our T32 training grant in Sleep Medicine Epidemiology and Neurobiology has been consistently funded for over 18 years. We have expanded the number of ACGME approved training slots in Pulmonary/Critical Care from 12 to 15. The philosophy of our training programs is to produce excellent clinicians trained in the art and science of medicine outfitted with a strong research component and equipped with all the tools necessary for them to succeed as leaders in academic and clinical settings.



DIVISION OF PULMONARY, CRITICAL CARE & SLEEP MEDICINE

RODNEY FOLZ, MD, PHD
> DIVISION CHIEF

We strive to be a national leader in the delivery of exceptional-quality respiratory care... through an integrated clinical practice, disease-focused centers of excellence, innovative research and professional education.

THE DIVISION OF RHEUMATOLOGY STRIVES TO FULFILL THE MISSION OF UNIVERSITY HOSPITALS IN ITS PATIENT CARE, EDUCATION AND RESEARCH. The Division collectively did 50,000 – 60,000 RVU's. Dr. David Blumenthal joined the division and Dr. Richard Stein returned from Florida to practice part-time for UHMP. Dr. Marie Kuchynski became the point person to facilitate the Rheumatology EMR. The infusion center at Chagrin Highlands continued to do about 10 biologic infusions per week in 2017-2018 and there were 1,865 bone densities completed and interpreted by faculty and reported to our community physicians.

Education continued to provide training to 7 Rheumatology fellows, which included 1 Med-Peds fellow. Four of the fellows graduated and returned to their own hometown to practice. There were 138 fellowship applicants in 2017 and 187 applicants for 2018. We matched 4 fellows for the 2017-18 academic year and plan to fill and match 2 fellows in 2018-19. The Division of Rheumatology also provided education to 10 rotating residents and 8 senior medical students who participated in Case Western Reserve's musculoskeletal lectures for both small groups and large class lectures. The Division of Rheumatology hired an experienced Academic Program Coordinator, Leslie Estremera, who brought years of experience as a coordinator to medical students, residents and fellows.

The Division faculty, (Dr. Askari as Chair), arranged the 27th Annual Cleveland Rheumatology Review on May 4-5, 2018 with 110 participants from all over the country. The Division of Rheumatology also sponsored the Lupus Foundation and arranged the University Hospital's supported Annual Lupus Summit, which is usually held at Ahuja Medical Center.

Academic research and publications continued with scholarly activity of the fellows and the faculty. Accordingly, we had 31 papers published in referred journals from the year 2017 to present by faculty members in the Division. Research centered around diseases such as Lupus (Tregs in Lupus by Dr. Edward Medof et al), Rheumatoid T & B cells (by Dr. Donald Anthony et al), Osteoarthritis (by Dr. Charles Malesud et al) and Cryoglobulinemia (by Dr. Maya Mattar et al) as well as other autoimmune and rheumatic diseases such as Dermatomyositis and Joint Hypermobility and POTS coined HYPOTS (by Dr. Ali Askari et al).

Finally, the Division of Rheumatology's future plans include the selection of a new Division Chief (in progress) and a Fellowship Program Director who will be starting in early 2019.

DIVISION OF RHEUMATOLOGY

ALI ASKARI, MD
> DIVISION CHIEF



VETERANS AFFAIRS

ROBERT BONOMO, MD
> VICE CHAIR, VETERANS AFFAIRS

Overall, the Cleveland VA is nationally ranked among the best in quality care and innovation.

THE CLINICAL AND ACADEMIC PROGRAMS AT THE LOUIS STOKES CLEVELAND VETERANS AFFAIRS MEDICAL CENTER ARE DEDICATED TO ADVANCING THE CARE OF PATIENTS AND TRAINING THE NEXT GENERATION OF PHYSICIAN LEADERS, SCIENTISTS AND EDUCATORS. This past year, six faculty (Geriatrics, Hematology Oncology, General Internal Medicine and Cardiology) were recognized as “Top Docs” by Cleveland Magazine. Six faculty also won Scholarship in Teaching Awards from CWRU SOM, five were also elected to the Academy of Scholar Educators and two designated as Fellows of the Academy.

The General Internal Medicine (GIM) Section and the Center of Excellence (COE) in Primary Care continue to define the highest standards in ambulatory medicine. These enterprises are model programs for academic medical centers nationally. Women’s Health continues to lead the VA in the implementation of new programs directed to the largest growing section of veterans. The Acute Medicine Section is a leader in innovative practices, portable ultrasound and is recognized for delivering quality inpatient care. Our Cardiology services are nationally recognized in Left Ventricular Assist Devices as Destination Therapy in Advanced Heart Failure. The Pulmonary Section continues to excel in nationally funded research programs and is advancing the frontiers of knowledge in lung disorders. Additionally, our multidisciplinary Sleep Section has received national recognition for important findings advancing the science of sleep.

Physicians in our GI Section are leading the country in developing evidence-based guidelines and clinical trials in the screening and treatment of Hepatitis C patients. Research in the Endocrinology and Rheumatology Sections address patient-centered care of the hospitalized elderly and Bone Health. The Infectious Disease Section is a nationally recognized leader in management of *C. difficile* and methicillin-resistant *Staphylococcus aureus* and leads a unique VA program of antibiotic stewardship. The Hematology and Oncology Section is a nationally recognized leader in the implementation of a quality program that optimizes timely diagnosis and treatment of patients with cancer and possesses a world class thrombosis expertise.

Overall, the Cleveland VA is nationally ranked among the best in quality care and innovation. National programs such as the Center of Innovation (COI) and the Specialty Care Center of Excellence (COE) for Oncology Care is transforming and integrating multi-disciplinary cancer care. The Geriatric Research Education and Clinical Centers (GRECC) stands at the forefront of improving lives for our elderly veterans. Lastly, telemedicine, a unique program within the VA, is also expanding access to quality patient care, especially to regions that are underserved that need it the most. This novel approach within our VA is changing our healthcare delivery model for the better.

NOW IN ITS SIXTH YEAR, THE HARRINGTON DISCOVERY INSTITUTE CELEBRATES MANY ACCOMPLISHMENTS IN SUPPORT OF ITS MISSION TO TRANSLATE PROMISING DISCOVERIES INTO MEDICINES THAT BENEFIT SOCIETY.

Harrington Discovery Institute—part of The Harrington Project for Discovery & Development—is taking bold steps to improve the standard of care by adding new programs, partnerships, people and products. With nearly 2,000 applications from 210 institutions received to date, Harrington Discovery Institute has built a strong national reputation. Since its founding in 2012, The Harrington Project is responsible for supporting 96 scholars, the launch of 20 companies, the licensing of five programs to major pharmaceutical companies and movement of five drugs into clinical trials.

The first class of Harrington Rare Disease Scholars was launched this year; a result of the institute's first industry partnership with Takeda Pharmaceutical Company. This collaboration builds on a model whereby new programs focus on areas of unmet therapeutic need. At the same time, the flagship Scholar-Innovator program remains open to all therapeutic indications and is dedicated to supporting the research of physician-scientists.

Delivering on a vision to create centers of excellence in key disease areas, two nationally-renowned investigators in the fields of neuro-psychiatric disorders and energy homeostasis and metabolic disease were recruited. Last year, a new Harrington Fellows program was launched to support promising, early- to mid-career physician-scientists in Cleveland. The inaugural cohort consisted of three outstanding investigators, who are finishing their second year in the program. We are also growing our team at Harrington Discovery Institute and adding new expertise and experience across all operational areas.

To further our commitment to improving patient lives, we are preparing to launch two exciting, new financial products. One is a mission-related investment product that sustainably finances the translation of discoveries. The other is a new biotech asset class that offers unprecedented potential for scale and thus makes cures more likely.

We can proudly say we are a new model for the world of philanthropy and are a nationally significant organization and a force for improving global human health.

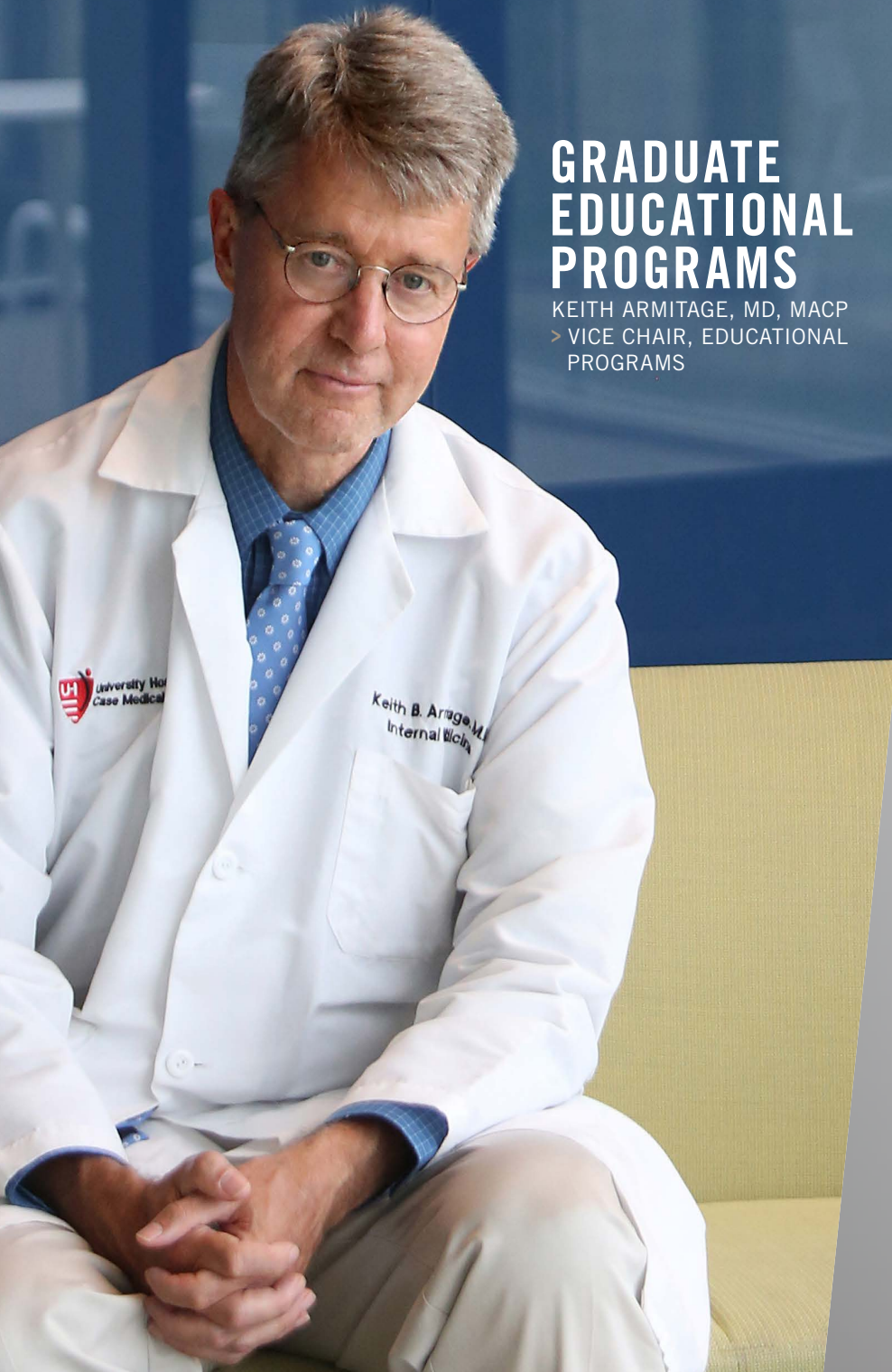
HARRINGTON DISCOVERY INSTITUTE

JONATHAN STAMLER, MD
> PRESIDENT



GRADUATE EDUCATIONAL PROGRAMS

KEITH ARMITAGE, MD, MACP
> VICE CHAIR, EDUCATIONAL
PROGRAMS



THE INTERNAL MEDICINE RESIDENCY PROGRAM AT UNIVERSITY HOSPITAL AND THE CLEVELAND VETERANS ADMINISTRATION HOSPITAL IS BASED ON TWO PRIMARY THEMES: CAREER DEVELOPMENT AND PATIENT CARE. While engaging in their professional development our residents continue to provide outstanding care to patients at UH and the Cleveland VA. Below are select accomplishments from AY 17-18.

- > The IM residency graduated its second class in a new pathway for residents interested in medical education. The Leadership in Medical Education (LME) pathway was started by Dr. Charles LoPresti, one of our Associate Program Directors. Among other activities, residents in the LME completed a scholarly project in medical education and lead the 'capstone' rotation for CWRU students entering IM residencies.
- > The IM residency added a fifth Chief Resident to provide additional education and supervision for evening and night hours. We now have five Chief Residents and have added a fifth rotation called UH Night Chief. The other rotations are VA Chief, Ambulatory Chief, UH Chief and Patient Safety and Quality Chief.
- > Dr. Salata reprised a tradition of 'midnight rounds,' organizing a monthly Chairman teaching rounds for students, interns and residents on call in the hospital in the evening.
- > Fourteen 2018 residency graduates will be staying at UH/VA for fellowship or faculty positions. Eight graduating fellows are joining the University Hospital Health System or VA staff.
- > The Department of Medicine sponsored fellowships in thirteen subspecialties. All subspecialty programs received full accreditation from the ACGME in 2016.

The continuing education component of the educational program remains strong. As examples, weekly Grand Rounds and Morbidity and Mortality Conferences provide outstanding education for students, residents and faculty while also providing type one CME for faculty. Grand Rounds presentations are also available on the Department of Medicine web site.

The Department of Medicine is prepared to meet new health care challenges through the strength and balance provided by the excellence and expertise of our faculty in fulfilling our mission of exemplary medical care, development and application of new knowledge as well as superior training of health care professionals.

UNDERGRADUATE EDUCATIONAL PROGRAMS

DEBRA LEIZMAN, MD
> DIRECTOR, INTERNAL MEDICINE
CLERKSHIP



The Department of Medicine's commitment to scholarship, along with their consistent excellence in patient care and research, forms an outstanding platform for teaching future health care professionals.

THE DEPARTMENT OF MEDICINE FACULTY SERVE AS MEDICAL STUDENT MENTORS AND TEACHERS, EACH YEAR CONTRIBUTING MORE THAN 10,000 HOURS OF DIRECT TEACHING TIME DURING THE THIRD YEAR CORE INTERNAL MEDICINE CLERKSHIP, BASIC SCIENCE CURRICULUM COURSES AND FOURTH YEAR ACTING INTERNSHIPS IN MEDICINE. This represents more than 40 percent of total faculty teaching time at Case Western Reserve University School of Medicine. During the 2017-18 academic year, 85 students completed their Internal Medicine 3rd year clerkship at University Hospital (UH) Cleveland Medical Center and The Louis Stokes Cleveland Veterans Affairs (VA) Medical Center. The core Internal Medicine clerkship program at UH and the VA Medical Centers continues to be one of the highest rated clerkship experiences for students. Our house staff and faculty provide an outstanding core clerkship experience for the medical students. For the 7th consecutive year our clerkship site earned recognition for the high percentage of medical student abstracts accepted for presentation at the American College of Physician (ACP) Chapter's Meeting in Columbus. Two students were selected to present abstracts as well at the National ACP meeting in New Orleans. Additionally, there were ninety-six fourth year medical students who did their Internal Medicine acting internships (AIs) at UH and the VA and our department wrote more than 150 letters of recommendation in support of these students.

The Department of Medicine sponsors and advises the Case Medical Student Internal Medicine Interest Group which hosts monthly events during the academic year. These events provide venues for students to interact with residents, fellows and attending faculty in the Department and to learn about research and clinical opportunities and potential careers in Internal Medicine starting from their first year of medical school. Twenty percent of this year's graduating medical school class chose careers in Internal Medicine.

Case medical students are active participants in research within the Department of Medicine taking advantage of our outstanding research and strong commitment to academics. Medical students are involved with UH and VA faculty in research at different phases throughout their medical school years varying from the summer after the first year of medical school, the third year required medical school research thesis work and the doctoral candidate research by the Medical Science Training Program (MSTP) students. The Department of Medicine's commitment to scholarship, along with their consistent excellence in patient care and research, forms an outstanding platform for teaching future health care professionals.

THE DEPARTMENT OF MEDICINE'S RESEARCH EFFORT REMAINS EXCELLENT, CONSIDERED IN TERMS OF EXTERNAL GRANT SUPPORT AND THAT SUPPORT INDEED CONTINUED TO CLIMB THIS YEAR. Awards to Case Western Reserve University, Louis Stokes Cleveland VA Medical Center and University Hospitals Clinical Research Center totaled over \$85 million for 2017-2018. This represents an increase of about ten percent over the prior year.

Our 9th annual Research Day was held in May. Again, a large number of posters (117) were displayed with particularly good representation from house staff and fellows. Introductions from Dr. Salata and Dr. Hostetter were followed by three excellent plenary talks. This year's speakers were Andrew Blum, MD, PhD, from the Digestive Health Research Institute; Sanjay Rajagopalan, MD, FACC, FAHA, Chief of the Division of Cardiovascular Medicine; and Puja Van Epps, MD, from the Division of Infectious Diseases & HIV Medicine.

Three intramural Team Science initiatives received seed funds from the Department for the purpose of developing data for large grant submissions across disciplines. This year's awardees are:

- > Clark Distelhorst, MD from the Departments of Medicine and Pharmacology and Eli Bar, MD from the Department of Neurological Surgery on "Targeting the PKM2-InsP3R interaction as a novel therapeutic approach for glioblastoma".
- > Folashade Otegbeye, MD, MPH of the Department of Medicine, Division of Hematology & Oncology and Andrew E. Sloan, MD, FACS of the Department of Neurological Surgery on "Developing a Phase I clinical trial of cytokine activated, allogeneic natural killer cells stereotactically injected into the tumor resection cavity of patients with recurrent Glioblastoma".
- > Aman Rajpal, MD of the Department of Medicine/Endocrinology and Mohammad Q. Ansari, MD of Pathology and Laboratory Medicine on the "Effect of Dexamethasone (DEX) on Glucose Homeostasis in Obese and Non-Obese Individuals with No Diabetes".

The Harrington Physician-Scientist Pathway recruited two new residents. This track provides residents aspiring to research careers direct admission to research training in the subspecialty of their choice after two years of training in general internal medicine. Aaron Proweller, MD, PhD and Keith Armitage, MD, MACP have continued to successfully implement this program, now in its sixth year.

The department continues to sustain research at a high level. Efforts at fostering collaborative projects have been an important aspect of the Department of Medicine's focus. This collaborative atmosphere puts our faculty members at the forefront of discovery and our dedication to training research leaders helps shape the intellectual discourse of tomorrow.

RESEARCH

THOMAS HOSTETTER, MD
> VICE CHAIR, RESEARCH PROGRAMS



THE DEPARTMENT OF MEDICINE REMAINS COMMITTED TO ASSISTING EACH FACULTY AND TRAINEE WITHIN THE DEPARTMENT TO ACHIEVE THEIR PERSONAL CAREER ASPIRATIONS. Communication, facilitating access to professional development programming and extending mentorship activities remain a priority. In the past year:

- > Nearly 50 department-wide newsletters, with a pre-screened compilation of upcoming development programs, awards, opportunities and RFAs specifically targeted to Department of Medicine faculty and trainees, have been disseminated electronically. With increased awareness and longer lead times, faculty and trainees have been able to apply or register for pertinent professional development opportunities in a streamlined manner.
- > Departmental participation has expanded in more intensive professional curricula, including the Flora Stone Mather Center for Women's "What's Next?" workshop series for mid-career faculty, the Women Faculty School of Medicine (WFSOM)'s award opportunities (enabling participation in national professional development courses), the "To Tenure and Beyond," series conducted through the Office of the Provost and the School of Medicine's year-long FLEX Professional Development Program. The Department has also supported tuition, including for faculty participating in the "To Tenure and Beyond," series.
- > Based on an assessment of faculty needs, two Department-wide Grand Rounds programs, featuring experienced faculty panelists from the Committees on Appointments, Promotions and Tenure (CAPTs) at the School of Medicine, University Hospitals and the LSCVAMC were conducted. The events were also recorded and can be viewed online by faculty based at any hospital site.
- > A Career Mentoring Program, partnering 25 interested junior faculty with a career mentor outside their home division, was implemented. The intent of the program is to encourage early development of a long-term career vision, plan the necessary steps to attain this and facilitate academic advancement.

Initiatives for next year include assessing the performance of mentoring programs and encouraging broader participation; continuing our analysis of needs; improving participation in minority faculty development opportunities; and developing electronic toolkits related to career development topics that can easily be accessed remotely.

With these and other initiatives, the Department will continue to strive to foster the individual career goals of each and every member of our diverse and vibrant healthcare community.

DIVERSITY AND DEVELOPMENT

USHA STIEFEL, MD

> VICE CHAIR, DIVERSITY & FACULTY DEVELOPMENT



CLINICAL DEPARTMENTAL ADMINISTRATION

NANNETTE ROCK, MBA, RT(T)
> DIRECTOR, MEDICAL SERVICES

Our strategic objectives for 2019 will continue to be focused on increasing patient access, patient experience and physician engagement.

THE DEPARTMENT OF MEDICINE IS COMMITTED TO DELIVERING OUTSTANDING CARE TO ITS PATIENTS WHILE CONTINUING TO NAVIGATE THROUGH THE EVER CHANGING HEALTHCARE POLITICAL SCENE AND ITS IMPACT ON THE DELIVERY OF CARE TO OUR PATIENT POPULATION. We will continue to enhance the quality of care to our patients, improve interdisciplinary coordination and collaboration and improve utilization of our resources. Focusing on these concepts will contribute to the goal of improved patient satisfaction and clinical outcomes for our patient population. The principle goals of the department administration are to assure that our faculty are successful in our tripartite mission of the organization encompassing clinical expertise, research and education.

Academic year 2017–2018 included several notable achievements for the department and divisions. 2017 physician gross patient charges surpassed 2016 gross patient charges by 5%. For 2018 physician gross patient charges are trending to surpass 2017 charges by 6%. This growth along with efficient and thoughtful expense management positioned the department for an improvement of 20% to the net operating margin. Ambulatory visits for Academic year 2017-2018 increased by 12,782 (10%) visits and acute visits increased by 2,097 (1.5%) visits.

The Department of Medicine fully implemented the Electronic Charge Capture process in 2017, which significantly reduced the days lag for submission of charges. Along with the Central Billing Office the Department will continue to enhance this ongoing process through continued coding and billing education to all providers. The Department of Medicine migrated to the Soarian system in September 2018 (scheduling only) as part of the PCARM solution. This will provide the practice and patient one application for scheduling patient visits. In October 2018 the department was fully transitioned to Soarian to include registration and charge capture. This initiative will further increase the patient satisfaction through seamless scheduling, registration and billing processes.

In the 2017-2018 academic year the Department of Medicine was successful in the recruitment of 26 full time faculty and 6 PRN faculty members. With this added compliment of faculty the department will continue to exceed in clinical and academic excellence further strengthening our mission; ‘to heal, to teach, to discover’.

As the department moves into the next academic year our strategic objectives for 2019 will continue to be focused on increasing patient access, patient experience and physician engagement. We will work to become a top 10 nationally ranked Department of Medicine with respect to federal funding while significantly enhancing support from foundations, societies and industry in collaboration with the Chief Scientific Officer and the Center for Clinical Research and Technology.

ACADEMIC DEPARTMENTAL ADMINISTRATION

MATTHEW ZELESNIK, MBA

> ACADEMIC ADMINISTRATOR



ACADEMIC YEAR 2017-2018 SAW GROWTH IN EXISTING INITIATIVES FOR THE DEPARTMENT AND ITS DIVISIONS AND CONTAINED A NUMBER OF NOTEWORTHY ACHIEVEMENTS. Several notable awards include:

- > Keith B. Armitage, MD, MACP, was awarded The James S. Tan, MD, MACP Laureate Award by the Ohio Chapter of the American College of Physicians
- > Robert A. Salata, MD, FACP, FIDSA, was appointed the inaugural STERIS Chair of Excellence in Medicine
- > Sanjay Rajagopalan, MD, FACC, FAHA, professor, received a \$2 million National Institutes of Health grant to study if face masks protect against air pollution
- > Robert Bonomo, MD, professor, was awarded The William S. Middleton Award, U.S. Department of Veterans Affairs
- > Fabio Cominelli, MD, PhD, professor, was selected for the 2017 Case Western Reserve University School of Medicine Medal for Excellence in Health Science Innovation, the School of Medicine's highest honor
- > Sanford Markowitz, MD, PhD, professor, was awarded the Outstanding Investigator Award, National Institutes of Health

In Dr. Salata's second year as Chair of the Department of Medicine, faculty recruitment has been a top priority. Dr. Salata continues to focus on searching for quality physicians to join the Department's ranks. Additionally, with Dr. Salata's renewed emphasis on our academic activities, extramural research has seen increases in funding from public and private sources for our basic, translational and clinical research activities. These activities are facilitated by University Hospital's Clinical Research Center and by our affiliations with the Louis Stokes Cleveland VA Medical Center and the Case Western Reserve University's School of Medicine.

Internally, the Department of Medicine continues to enhance collaborative research efforts through the Department of Medicine Team Science Challenge. The Annual Department of Medicine Research Day continues to showcase the talents of our residents, fellows and post-doctoral trainees.

The primary goal of department administration is to facilitate the success of our faculty. In pursuit of this objective, departmental academic administration is focused on increasing our extramural research footprint, continuing our intramural and team-based support, assisting in recruiting exemplary faculty and leadership and continuing to support the Department's exemplary educational programs.

BY THE NUMBERS

3 to 1

RATIO OF CLINICIAN-EDUCATORS
TO PHYSICIAN-SCIENTISTS

329

NUMBER OF ACTIVE UH-BASED
CLINICAL TRIALS

742,177

TOTAL WORK-RELATIVE
VALUE UNITS

255

NUMBER OF
FULL-TIME FACULTY

\$324_M

ANNUAL STEWARDSHIP
RESPONSIBILITY

124

TOTAL NUMBER OF RESIDENTS

125,609

UHMG-BASED AMBULATORY PHYSICIAN
SERVICE ENCOUNTERS

375

DEPARTMENT-BASED IRB REVIEWS

105

TOTAL NUMBER OF
CLINICAL FELLOWS

\$36.8_M

NET PATIENT SERVICES REVENUE

76

PRINCIPAL AND CO-PRINCIPLE
INVESTIGATORS

LEADERSHIP

OUR PHYSICIANS ARE ALL PROUD FACULTY MEMBERS OF CASE WESTERN RESERVE UNIVERSITY

- > **ROBERT SALATA, MD, FACP, FIDSA**
STERIS Chair of Excellence in Medicine
Chairman, Department of Medicine
Physician-in-Chief, University Hospitals
Master Clinician in Infectious Diseases
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **BAHA ARAFAH, MD**
Chief, Division of Clinical & Molecular
Endocrinology
Director, Endocrinology Fellowship Program
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **KEITH ARMITAGE, MD, MACP**
Vice Chair, Education
Director, Internal Medicine Residency
Program, UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **ALI ASKARI, MD**
Chief, Division of Rheumatology
Director, Rheumatology Fellowship Program
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **ROBERT BONOMO, MD**
Vice Chair, Veteran Affairs
Chief, Medical Service
The Louis Stokes Cleveland VA
Medical Center
Professor of Medicine
CWRU School of Medicine
- > **W. HENRY BOOM, MD**
Chief, Division of Infectious Diseases &
HIV Medicine, UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **RAJESH CHANDRA, MD, FHM**
Vice Chair, Clinical Affairs & Transformation
Chief, Division of General Internal Medicine
UH Cleveland Medical Center
Associate Professor of Medicine
CWRU School of Medicine
- > **FABIO COMINELLI, MD, PHD**
Chief, Division of Gastroenterology
& Liver Disease
Chief Scientific Officer, Digestive Health Institute
UH Cleveland Medical Center
Hermann Menges, Jr. Chair in Internal Medicine
Director, Digestive Health Research Institute
Director, NIH Cleveland Digestive Diseases
Research Core Center
Professor of Medicine and of Pathology
CWRU School of Medicine
- > **MATTHEW COONEY, MD**
Interim-Chief, Division of Hematology & Oncology
UH Cleveland Medical Center
Associate Professor of Medicine
CWRU School of Medicine
- > **MARCO COSTA, MD, PHD, MBA**
President, UH Harrington Heart
& Vascular Institute
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **RODNEY FOLZ, MD, PHD**
Chief, Division of Pulmonary, Critical Care
& Sleep Medicine
Inkley Chair and Director, UH Respiratory
Health Institute
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **THOMAS HOSTETTER, MD**
Vice Chair, Research
Master Clinician in Nephrology
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **MUKESH JAIN, MD**
Ellery Sedwick Jr. Chair and Distinguished
Scientist in Cardiovascular Research
Chief Scientific Officer, Harrington
Discovery Institute
Chief Research Officer, UH Harrington
Heart & Vascular Institute
Chief Scientific Officer, University Hospitals
Health System
Vice Dean for Medical Sciences and
Professor of Medicine
CWRU School of Medicine
- > **TARYN LEE, MD, MPH**
Interim Chief, Division of Geriatrics
and Palliative Medicine
UH Cleveland Medical Center
Assistant Professor of Medicine
CWRU School of Medicine
- > **DEBRA LEIZMAN, MD**
Director, Undergraduate Medical Education
Director, Internal Medicine Clerkship Program
UH Cleveland Medical Center
Associate Professor of Medicine
CWRU School of Medicine
- > **MAHBOOB RAHMAN, MD**
Interim Chief, Division of Nephrology
& Hypertension
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **SANJAY RAJAGOPALAN, MD, FACC, FAHA**
Chief, Division of Cardiovascular Medicine
University Hospitals, Harrington Heart
& Vascular Institute
Herman K. Hellerstein, MD, Chair
in Cardiovascular Research
Director, Cardiovascular Research Institute
Professor of Medicine and Radiology
CWRU School of Medicine
- > **KENNETH ROSENFELD, MD**
Section Chief, Palliative Care
UH Cleveland Medical Center
Senior Clinical Instructor of Medicine
CWRU School of Medicine
- > **JONATHAN STAMLER, MD**
President, Harrington Discovery Institute
Robert S. and Sylvia K. Reitman Family
Foundation Distinguished Chair in
Cardiovascular Innovation
UH Cleveland Medical Center
Director, Institute for Transformative
Molecular Medicine
Professor of Medicine and of Biochemistry
CWRU School of Medicine
- > **USHA STIEFEL, MD**
Vice Chair, Diversity & Faculty Development
Section Chief, Infectious Diseases
The Louis Stokes Cleveland VA Medical Center
Associate Professor of Medicine
CWRU School of Medicine

MENTIONED PHYSICIAN FACULTY

OUR PHYSICIANS ARE ALL PROUD FACULTY MEMBERS OF CASE WESTERN RESERVE UNIVERSITY

- > **MOHAMMAD Q. ANSARI, MD**
Pathology and Laboratory Medicine
Professor of Pathology
CWRU School of Medicine
- > **DONALD ANTHONY, MD, PHD**
Division of Rheumatology
Professor of Medicine
CWRU School of Medicine
- > **ELI BAR, MD**
Department of Neurological Surgery
Assistant Professor of Neurological Surgery
CWRU School of Medicine
- > **ANDREW BLUM, MD, PHD**
Division of Gastroenterology and
Liver Disease
Assistant Professor of Medicine
CWRU School of Medicine
- > **DAVID BLUMENTHAL, MD**
Rheumatology, Louis Stokes Cleveland
VA Medical Center
Assistant Professor of Medicine
CWRU School of Medicine
- > **TERESA CARMAN, MD**
Director, Vascular Medicine
Medical Director, Coumadin Clinic
Medical Director, Center for Wound Care
Division of Cardiology
Assistant Professor of Medicine
CWRU School of Medicine
- > **AMITABH CHAK, MD**
Division of Gastroenterology and
Liver Disease
Professor of Medicine
CWRU School of Medicine
- > **LINDA CUMMINGS, MD**
Division of Gastroenterology
and Liver Disease
Assistant Professor of Medicine
CWRU School of Medicine
- > **MANEESH DAVE, MD**
Division of Gastroenterology
and Liver Disease
Assistant Professor of Medicine
CWRU School of Medicine
- > **NIRAJ DESAI, MD**
VA Section Chief, Division of
Nephrology and Hypertension
Assistant Professor of Medicine
CWRU School of Medicine
- > **CLARK DISTELHORST, MD**
Division of Hematology and Oncology
Professor of Medicine
CWRU School of Medicine
- > **BARRY EFFRON, MD**
Director, Evaluation and Prevention Center
Division of Cardiology
Associate Professor of Medicine
CWRU School of Medicine
- > **BARBARA GRIPSHOVER, MD**
Medical Director, Special Immunology Unit
Division of Infectious Diseases &
HIV Medicine
Associate Professor of Medicine
CWRU School of Medicine
- > **DONALD HRICIK, MD**
Division of Nephrology and Hypertension
Medical Director, Kidney and
Pancreas Transplant Program
Director, Dialysis Unit
UH Cleveland Medical Center
Professor of Medicine
CWRU School of Medicine
- > **PRIYA KALAHASTI, MBBS**
Division of Nephrology and Hypertension
Clinical Assistant Professor of Medicine
CWRU School of Medicine
- > **JEFFRY KATZ, MD**
Division of Gastroenterology and
Liver Disease
Professor of Medicine
CWRU School of Medicine
- > **MARIE KUCHYNSKI, MD**
Division of Rheumatology
Clinical Senior Instructor of Medicine
CWRU School of Medicine
- > **CHARLES LOPRESTI, MD**
Medicine, Louis Stokes Cleveland
VA Medical Center
Assistant Professor of Medicine
CWRU School of Medicine
- > **CHARLES MALEMUD, PHD**
Division of Rheumatology
Professor of Medicine
CWRU School of Medicine
- > **SANFORD MARKOWITZ, MD, PHD**
Division of Hematology and Oncology
Professor of Medicine
CWRU School of Medicine
- > **MAYA MATTAR, MD**
Division of Rheumatology
Assistant Professor of Medicine
CWRU School of Medicine
- > **FOLASHADE OTEGBEYE, MD, MPH**
Division of Hematology and Oncology
Assistant Professor of Medicine
CWRU School of Medicine
- > **CLIFFORD PACKER, MD**
Medicine, Louis Stokes Cleveland
VA Medical Center
Professor of Medicine
CWRU School of Medicine
- > **ANTHONY POST, MD**
Medical Director, Liver Transplantation
Division of Gastroenterology and
Liver Disease
Associate Professor of Medicine
CWRU School of Medicine
- > **AARON PROWELLER, MD, PHD**
Division of Cardiology
Associate Professor of Medicine
CWRU School of Medicine
- > **AMAN RAJPAL, MD**
Division of Clinical &
Molecular Endocrinology
Assistant Professor of Medicine
CWRU School of Medicine
- > **PAULA SILVERMAN, MD**
Division of Hematology and Oncology
Medical Director, Infusion Services
Director, Breast Cancer Program
Associate Professor of Medicine
CWRU School of Medicine
- > **ANDREW E. SLOAN, MD, FACS**
Department of Neurological Surgery
Professor of Neurological Surgery
CWRU School of Medicine
- > **RICHARD STEIN, MD**
Division of Rheumatology
Clinical Assistant Professor of Medicine
CWRU School of Medicine
- > **PUJA VAN EPPS, MD**
Infectious Diseases, Louis Stokes
Cleveland VA Medical Center
Assistant Professor of Medicine
CWRU School of Medicine

DEPARTMENT OF MEDICINE
2017/2018 ANNUAL REPORT

