

**DEPARTMENT  
*OF* MEDICINE  
ANNUAL REPORT**

**2019**  
**DISCOVERY AND INNOVATION**



THE UNIVERSITY OF  
**CHICAGO**  
UChicago Medicine

Department  
of Medicine



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## CHAIRMAN'S MESSAGE

### I am delighted to present to you the 2019 Department of Medicine Annual Report entitled "DISCOVERY AND INNOVATION".

This past academic year the Department of Medicine achieved remarkable success in every aspect of our tripartite mission. We described innovative pathways to diagnose and treat disease, we made major discoveries to advance science and medicine, and we used this vast knowledge to train the next generation of physician scientists. Over the past year, Medicine investigators successfully competed for a record high of \$169M in total cost research funding and continued to translate basic research into clinical practice with multiple seminal discoveries, publishing thousands of impactful papers with dozens in high profile journals, and conducting more than 1,600 clinical research studies. Our expertise was acknowledged with *U.S. News & World Report (USNWR)* recognition for our clinical programs and NIH top 25 recognition in research funding.

#### OTHER NOTABLE DEPARTMENTAL HIGHLIGHTS FROM THIS PAST YEAR INCLUDE:

- The appointment of four new administrative leaders: Diana Bolotin, MD, PhD as Chief of the Section of Dermatology; Hedy Kindler, MD as Associate Vice Chair for Clinical Research; Sonali Smith, MD as the Interim Chief of the Section of Hematology/Oncology; and Steve White, MD as Vice Chair for Appointments and Promotions
- Several institutional and national leadership appointments: Halina Brukner, MD as Dean for Medical Education; Walter Stadler, MD as Dean for Clinical Research; and Louis Philipson, MD, PhD as President of Medicine & Science for the American Diabetes Association
- National and state recognition for the outstanding work of our faculty. For example, Marshall Chin, MD was elected to the American Association of Physicians, and Olufunmilayo Olopade, MD and Louis Philipson, MD, PhD were recipients of the State of Illinois Order of Lincoln Award. Vineet Arora, MD was recently elected to the National Academy of Medicine and was selected as a Josiah Macy Foundation Faculty Scholar; Monica Vela, MD was selected by the National Latino Medical Students Association as the Mentor of the Year, and Richard Larson, MD was awarded the Henry Stratton Medal from the American Society of Hematology
- Extraordinary research funding success for several of our investigators in the areas of HIV, autoimmunity, oxygen sensing, diabetes, colon cancer screening, microbiome, health disparities and outcomes research
- USNWR recognition in Gastroenterology, Cancer, Nephrology, and Geriatrics
- Increased activity across all clinical operations, improved patient access as well as significant presence at the University of Chicago Medicine offsite practices throughout Chicago
- Highly successful residency and fellowship match
- Cultivating a new generation of scientists via our Coggeshall Fellow and Pathway to Independence instructor appointments

I am proud to lead a department that is comprised of clinicians, scientists and educators that are dedicated to discovery and innovation to advance our tripartite missions. I am grateful to the faculty for their amazing contributions to our success over the past year.



#### Everett E. Vokes, MD

John E. Ulmann Professor; Chair, Department of Medicine  
Physician-in-Chief, University of Chicago Medicine & Biological Sciences



# ORGANIZATION

	Chairman, Department of Medicine	Everett E. Vokes, MD
<b>Executive Committee:</b>	Vice Chair of Appointments & Promotions Vice Chair of Clinical Operations Vice Chair of Education Vice Chair of Faculty Development Vice Chair of Research  Associate Vice Chair – Appointments & Promotions Associate Vice Chair – Ambulatory Operations Associate Vice Chair – Clinical Research Associate Vice Chair – Quality Associate Vice Chair – Research Executive Administrator Associate Executive Administrator	Steven White, MD* Matthew Sorrentino, MD John McConville, MD Deborah Burnet, MD Julian Solway, MD Yoav Gilad, PhD Bana Jabri, MD, PhD Dorothy Hanck, PhD Lisa Vinci, MD Hedy Kindler, MD* Andrew Davis, MD Anne Sperling, PhD Julie J. White James Manthey
<b>Section Chief Council:</b>	Cardiology Computational Biomedicine & Biomedical Data Science Dermatology Emergency Medicine Endocrinology, Diabetes & Metabolism Gastroenterology, Hepatology & Nutrition General Internal Medicine Genetic Medicine Geriatrics & Palliative Medicine Hematology/Oncology Hospital Medicine Infectious Diseases & Global Health Nephrology Pulmonary/Critical Care Rheumatology	James Liao, MD Robert Grossman, PhD & Andrey Rzhetsky, PhD Diana Bolotin, MD, PhD** Linda Druelinger, MD Ronald Cohen, MD David Rubin, MD Deborah Burnet, MD Yoav Gilad, PhD Stacie Levine, MD Sonali Smith, MD (interim)* David Meltzer, MD, PhD David Pitrak, MD Arlene Chapman, MD Gokhan Mutlu, MD Marcus Clark, MD
<b>Committee Chairs:</b>	Diversity and Inclusion Committee Women's Committee	Monica Vela, MD Julie Oyler, MD
<b>Chief Residents:</b>	<b>2019 Chief Residents</b>  <b>2020 Chief Residents</b>	Lauren Feld, MD Sarah Gray, MD Marie McKinnon, MD David Tehrani, MD  Kirk Cahill, MD Jennifer Houpy, MD Joshua Katz, MD Elizabeth Munroe, MD
<b>Senior Management:</b>	Budget and Finance  Clinical Revenue and Billing Clinical Research Support Clinical Trials Financial Group Human Resources (Academic) Human Resources (Staff) Information Systems Research Administration	Sunila Goel Jim Skish Lisa Kogan Allison Buonamici Ashley Hoambrecker Sharon Frazier Chris Yaros Max Marchevsky Katie Pizer

\*New in FY19  
 \*\*New in FY20

BY THE NUMBERS

15  
SUBSPECIALTY  
SECTIONS

313  
FACULTY

FY19  
RESEARCH  
ACTIVITY

#25 in NIH Funding (2018)  
 \$122M Total NIH Awards  
 \$30M in Clinical Trial Earnings  
 \$169M Total Sponsored Research Awards  
 & Clinical Trial Earnings  
 8 NIH Program Project Grants

Trainees 299  
 Residents 177  
 Subspecialty Fellows 122  
 NIH T32 Training Grants 9

FY19  
EDUCATIONAL  
ACTIVITY

FY19  
CLINICAL  
ACTIVITY

1,245,644 RVU's  
 204,437 Onsite Outpatient Visits  
 67,552 Emergency Room Visits  
 29,794 Offsite Outpatient Visits  
 15,496 Inpatient Admissions

351 TRANSPLANT CASES



## SPECIAL AWARDS 2019

### Elected Fellows of the American Academy of Arts and Sciences

Graeme Bell, PhD  
Olufunmilayo Olopade, MD

### Elected Members of the Association of American Physicians

Michael A. Becker, MD  
Antonio Bianco, MD, PhD  
Eugene Chang, MD  
Arlene Chapman, MD  
Marshall Chin, MD\*  
Marcus Clark, MD  
Fredric Coe, MD  
Alan Leff, MD  
Bana Jabri, MD, PhD  
James Liao, MD  
David Meltzer, MD, PhD  
Olufunmilayo Olopade, MD  
Kenneth Polonsky, MD  
Mark J. Ratain, MD  
Samuel Refetoff, MD  
Mark Siegler, MD  
Julian Solway, MD  
Everett Vokes, MD

### Elected Members of the American Society for Clinical Investigation

Marisa Alegre, MD, PhD  
Vineet Arora, MD  
Michael A. Becker, MD  
Antonio Bianco, MD, PhD  
Eugene Chang, MD  
Marcus Clark, MD  
Fredric Coe, MD  
Elbert Huang, MD, MPH  
Thomas Gajewski, MD, PhD  
Lucy Godley, MD, PhD  
Harvey Golomb, MD  
James Liao, MD  
Alan Leff, MD  
David Meltzer, MD, PhD  
Gokhan Mutlu, MD  
Olufunmilayo Olopade, MD  
Kenneth Polonsky, MD  
Samuel Refetoff, MD  
Julian Solway, MD  
Everett Vokes, MD

### Elected Members of the National Academy of Medicine

Vineet Arora, MD\*\*  
Graeme Bell, PhD  
Marshall Chin, MD  
Robert Gibbons, PhD  
David Meltzer, MD, PhD  
Olufunmilayo Olopade, MD  
Kenneth Polonsky, MD

### American College of Physicians Masters

Mark Siegler, MD

### Department of Medicine Named Professorships

Graeme Bell, PhD – Kovler Family Distinguished Professor  
Eugene Chang, MD – Martin Boyer Professor  
Marshall Chin, MD – Richard Parillo Family Professor in Healthcare Ethics  
Thomas Gajewski, MD, PhD – AbbVie Foundation Professor  
Robert Gibbons, PhD – Blum Riese Professor  
Harvey Golomb, MD – Lowell T. Coggeshall Professor  
Robert Grossman, PhD – Frederick H. Rawson Distinguished Service Professor\*  
Bana Jabri, MD, PhD – Sarah & Harold Lincoln Thompson Professor  
James Liao, MD, PhD – Harold H. Hines, Jr. Professor  
Michelle Le Beau, PhD – Arthur and Marian Edelstein Professor  
David Meltzer, MD, PhD – Fanny L. Pritzker Professor  
Olufunmilayo Olopade, MD – Walter L. Palmer Distinguished Service Professor  
Louis Philipson, MD, PhD – James C. Tyree Professor in Diabetes Research & Care  
Kenneth Polonsky, MD – Richard T. Crane Distinguished Service Professor  
Nanduri Prabhakar, PhD – Harold H. Hines, Jr. Professor  
Mark Ratain, MD – Leon O. Jacobson Professor  
Samuel Refetoff, MD – Frederick H. Rawson Professor  
David Rubin, MD – The Joseph B. Kirsner Professor of Medicine  
Andrey Rzhetsky, PhD – Edna K. Papazian Professor  
Christopher Shea, MD – Eugene J. Van Scott Professor  
Mark Siegler, MD – Lindy Bergman Distinguished Service Professor  
Keyoumars Soltani, MD – Allan L. Lorincz Professor\*  
Sonali Smith, MD – Elwood V. Jensen Professor  
Julian Solway, MD – Walter L. Palmer Distinguished Service Professor  
Walter Stadler, MD – Fred C. Buffett Professor  
Wendy Stock, MD – Anjuli Seth Nayak Professor in Leukemia  
Eve Van Cauter, PhD – Frederick H. Rawson Professor  
Everett Vokes, MD – John E. Ultmann Professor  
Irving Waxman, MD – Sara and Harold Lincoln Thompson Professor



2019 Department of Medicine Award Recipients

## AWARDS

### Distinguished Service Awards

Joseph B. Kirsner, MD, PhD (2006)  
Janet Rowley, MD (2007)  
Louis Cohen, MD (2008)  
Morton Arnsdorf, MD (2009)  
Angelo Scanu, MD (2010)  
Keyoumars Soltani, MD (2011)  
Jesse B. Hall, MD (2013)  
Roy E. Weiss, MD, PhD (2014)  
Mark Siegler, MD (2014)  
Samuel Refetoff, MD (2015)  
Eve Van Cauter, PhD (2016)  
Roberto Lang, MD (2017)  
Dorothy Hanck, PhD (2017)  
Linda Druelinger, MD (2018)  
Michelle Le Beau, PhD (2018)  
Joseph Baron, MD (2019)  
Edward Garrity, Jr., MD (2019)

### Arthur H. Rubenstein, MD Mentorship Award

Eugene B. Chang, MD (2007)  
Julian Solway, MD (2008)  
Jesse Hall, MD (2009)  
Roberto Lang, MD (2010)  
Marshall Chin, MD (2010)  
Fredric Coe, MD (2011)  
Olufunmilayo Olopade, MD (2012)  
Deborah Burnet, MD (2013)  
Mary Strek, MD (2014)  
David Meltzer, MD, PhD (2015)  
Wendy Stock, MD (2016)  
Graeme Bell, PhD (2017)  
Vineet Arora, MD (2018)  
Elbert Huang, MD (2019)

### Leif B. Sorensen, MD, PhD Faculty Research Award

Suzanne Conzen, MD (2007)  
Marisa Alegre, MD, PhD (2008)  
Anne Sperling, PhD (2008)  
Bana Jabri, MD, PhD (2009)  
Eric Svensson, MD, PhD (2010)  
Elbert Huang, MD (2011)  
Patrick Wilson, PhD (2012)  
Konstantin Birukov, MD, PhD (2013)  
Lucy Godley, MD, PhD (2013)  
John Schneider, MD, MPH (2014)  
Yu Ying He, PhD (2015)  
Esra Tasali, MD (2016)  
Monica Peek, MD (2017)  
Yun Fang, PhD (2018)  
Megan Huisinigh-Scheetz, MD (2019)  
Neda Laiteerapong, MD (2019)

### Diversity Award:

Monica Vela, MD (2010)  
David Howes, MD (2011)  
Blanca Camoretti-Mercado, PhD (2012)  
Minoli Perera, PhD (2013)  
Monica Peek, MD, MPH (2014)  
John Schneider, MD, MPH (2015)  
James Woodruff, MD (2016)  
Doriane Miller, MD (2017)  
Milda Saunders, MD (2018)  
Kamala Cotts, MD (2019)

### Biological Sciences Division Awards

Distinguished Clinician (Senior Award) – Kathleen Mullane, DO, Pharm D  
  
Distinguished Leader in Program Innovation (Junior Award) – Valerie Press, MD  
  
Distinguished Educator/Mentor (Junior Award) – Shannon Martin, MD  
  
Distinguished Leader in Community Service and Advocacy (Junior Award) – Mai Pho, MD  
  
Distinguished Leader in Community Service and Advocacy (Senior Award) – Rita Rossi-Foulkes, MD  
  
Faculty Physician Peer Role Model Award – Helen Te, MD  
  
The Francis Straus Mentorship Award (Clinical) – Vineet Arora, MD  
  
Gold Key Awardees – Joseph Baron, MD (Emeritus) and Anne Hong, MD (retired)



2019 BSD Award Recipients

\*New in FY19 \*\*New in FY20

## FACULTY HIGHLIGHT: HALINA BRUKNER, MD

Professor of Medicine (General Internal Medicine)

Dean for Medical Education



In her new role as Dean for Medical Education, Dr. Brukner is responsible for the entire continuum of medical education at the University of Chicago.

In May 2019, **Halina Brukner, MD** was appointed as the Dean for Medical Education at the University of Chicago Pritzker School of Medicine having served in an interim capacity for less than a year. Dr. Brukner is an extremely experienced and accomplished member of the Department of Medicine's faculty, and she has held a host of leadership positions both within the Medical School as well as the Department since joining the University of Chicago in 1985.

Dr. Brukner completed her medical school education at New York University School of Medicine and her residency in internal medicine at the University of Chicago in 1982. She joined the faculty of the Section of General Internal Medicine in 1985, and served as clerkship director for internal medicine for 13 years (1986-1999). In this role, Dr. Brukner developed innovative programs in improving skills to give effective feedback and has been recognized for her innovations by the Society of General Internal Medicine. She also served as Director of the University of Chicago Primary Care Group (1995-1999) and Vice Chair of the Department of Medicine (1999-2004). In the latter role, she oversaw academic appointments and promotions for faculty.

In 2004, she was appointed as Associate Dean for Medical School Education where she guided the implementation of an innovative new curriculum: the Pritzker Initiative for the 21st Century. As Associate Dean, Dr. Brukner was responsible for all aspects of curricular and academic issues in the Medical School, overseeing courses and clerkships, supporting faculty, and managing student academic advancement through the Committee on Academic Promotions, the Curriculum Review Committees, and more. In this role, she provided ongoing support and counseling for students as they moved through the curriculum, both for classes as a whole and for individual students.

Dr. Brukner is also the founding Director of the Academy of Distinguished Medical Educators, established in 2005, to support and promote research, innovation, and scholarship in medical education at the University of Chicago. In this role, she planned and led Pritzker's annual Medical Education Day and worked with her team to develop initiatives aimed at strengthening teaching scholarship, such as the Teaching Consultation Service, the Faculty Advancing in Medical Education series, the awarding of medical education grants, and the recognition of outstanding teachers through election to the Academy.

In her current role as Dean for Medical Education, Dr. Brukner is responsible for the entire continuum of medical education at the University of Chicago, including the Pritzker School of Medicine, residencies and fellowships, continuing medical education and medical simulation. This includes oversight of all senior staff, faculty deans, and directors across the continuum, as well as interactions with University, BSD, and hospital leadership on numerous committees and initiatives. She is currently overseeing the 18-month process leading to Pritzker's upcoming re-accreditation visit by the Liaison Committee on Medical Education (LCME) in 2020-21.

Dr. Brukner sees patients in the Primary Care Group and 150 E. Huron, some of whom have been seeing her for over 30 years. She describes these long-term relationships as being among the most meaningful and enduring aspects of her role at the University of Chicago. She remains an active teacher at many levels across the continuum of medical education.

## FACULTY HIGHLIGHT: EUGENE B. CHANG, MD

Martin Boyer Professor of Medicine (Gastroenterology, Hepatology & Nutrition)



**Eugene B. Chang, MD** is a physician-scientist who has made seminal contributions to our understanding of intestinal biology and function in health and disease. A hallmark of his work is thinking outside the box, identifying critical questions, and forging novel inter-disciplinary collaborations to adopt/access state of the art knowledge to address these questions. The fundamental core of these explorations is to unravel the molecular pathophysiology of metabolic and complex immune disorders. For example, Dr. Chang was one of the first to apply new technologies to the study of the gut microbiome. He re-directed his research to focus on host-microbial interactions of the intestine, particularly in defining critical interactions needed for development and maintenance of intestinal and non-intestinal organismal functions. The knowledge gained from these studies provides a better understanding of how enteric microbiota, influenced by diet, environment, and other host factors contribute to the development of complex immune and metabolic diseases, especially inflammatory bowel diseases (IBD), obesity, and diabetes.

Dr. Chang's interests in science and medicine started five decades ago when as an undergraduate at the Johns Hopkins University (1968-72) he explored the immunological and genetic basis of ragweed allergies. His association with the University of Chicago, started as a medical trainee, obtaining his M.D. at the Pritzker School of Medicine (1972-76), followed by residency training in Internal Medicine (1976-1979) and culminated with a clinical fellowship training in Gastroenterology (1979-82). His desire to become a physician scientist, attracted him to seek further training with Dr. Michael Field, a pioneer in studies of in-

testinal fluid and electrolyte transport. Dr. Chang's potential and early contributions were recognized with his being selected as a Fellow of the John A. & George L. Hartford Foundation and receiving an NIH National Research Science Award.

Dr. Chang established his first independent research laboratory at Columbia University (1984-86) during which time he was the first to definitely demonstrate the role of cytosolic calcium and protein kinase C in the regulation of intestinal water and electrolyte transport. He returned to the Department of Medicine in 1986 and forged a program understanding the molecular basis of intestinal ion transporters and their regulation. To gain a better understanding of the molecular mechanisms involved in these processes, Dr. Chang sought guidance from Dr. Graeme Bell to develop approaches that led to how inducible heat shock proteins (Hsp) were involved in mucosal cytoprotective and regulatory functions, the development of sporadic and inflammation-associated colon cancer, the pathogenesis of human inflammatory bowel diseases (IBD), and the promotion of mucosal wound healing. However, these studies also revealed the essential role of gut microbes in maintaining physiological expression of intestinal epithelial Hsps and how perturbations of gut microbiota compromise their expression and ability to maintain gut mucosal health and function. It was this observation that led once again to his re-tooling the lab to study the gut microbiome using cultivation-independent approaches, a decision that has had a huge impact on medical research at the University of Chicago. Central to these efforts is that he has helped map the profile and eminence of microbiome research as it relates to human health at the University of Chicago, and in the process has been a key team

player in recruiting outstanding talent to the Department and the University. With Drs. Alexander Chervonsky and Betty Theriault, Dr. Chang helped establish the Gnotobiotic Research Animal Facility in KCBD. Dr. Chang also established and directs the DOM Microbiome Medicine Program (MMP), with Dr. Marisa Alegre (Rheumatology) serving as Co-Director. Along with investigators at Marine Biology Laboratory and Argonne National Laboratory, Dr. Chang was one of the first recipients of a grants from the NIH Human Microbiome Project (2009-2014) to develop new technologies for microbiome research and to study the microbial basis of human IBD. The latter studies continue to this day with the awarding of a RC2 high impact, multi-disciplinary program grant from the NIDDK. Finally, Dr. Chang, in collaboration with the Chinese University of Hong Kong and the Duchossois Family Institute (Eric Pamer, MD - Director), is developing and banking "healthy" human gut microbes for the prevention/treatment of disease. It is notable that Dr. Chang has maintained continuous NIH-R01 funding for the past 37 years, including a NIH R37 Merit Award (2008-2018).

As a mentor, Dr. Chang has directly trained many graduate and medical students, clinical and basic science postdoctoral fellows, and even undergraduate students, who have gone on to establish successful academic/scientific careers and become prominent leaders in academic medicine. Equally important Dr. Chang's mentorship extends far beyond the above traditional descriptors of the trainee, and has molded the careers of junior colleagues and peers both within the University and in other institutions. Dr. Chang has been a champion of equity in educational opportunities for all and especially of women in the field. To name a few of his many mentorship honors, he was awarded the inaugural Arthur Rubenstein Mentorship award and was inducted as Master of the Academy of Distinguished Educators at the University of Chicago as well as being elected to the American Gastroenterological Association's (AGA) Academy of Educators and winning AGA's Outstanding Mentorship Award. Dr. Chang is a member of several prestigious research societies, including the American Society for Clinical Investigation (ASCI) and American Association of Physicians (AAP). Finally Dr. Chang's scholarship has been recognized extensively, including being awarded the Takeda Distinguished Scientist Award by the American Physiological Society.



## FACULTY HIGHLIGHT: ELBERT HUANG, MD

Professor of Medicine (General Internal Medicine, Geriatrics and Endocrinology)  
Director, Center for Chronic Disease Research and Policy



In 2019, Dr. Huang was selected as the recipient of the Department of Medicine's Arthur Rubenstein Mentorship Award.

**Dr. Elbert Huang** is Professor of Medicine and Director of the Center for Chronic Disease Research and Policy at the University of Chicago. Dr. Huang is a clinical investigator who has made significant contributions in patient-oriented diabetes translational and policy research. He is best known for his work in medical decision making in diabetes care for older people and the cost-effectiveness analysis of diabetes treatments and programs.

Using methods from health economics, the decision sciences, and clinical epidemiology, Dr. Huang's research has provided the theoretical and evidence-based foundation for the concept of personalizing diabetes care goals and treatments in older people. Dr. Huang's research has directly influenced modern diabetes care clinical practice guidelines for older people that now emphasize 1) individualization of glycemic goals, 2) the role of patient treatment preferences, 3) the clinical importance of hypoglycemia, and 4) management of geriatric conditions.

Dr. Huang has also applied research methods from the decision sciences to study the cost-effectiveness of new interventions from the perspective of policymakers. He found that a national program to improve diabetes care delivery in federally qualified health centers was cost-effective for society but represented a significant uncompensated cost for health centers. His other economic evaluations have included studies of continuous glucose monitoring and genetic discoveries. Dr. Huang has had the unique opportunity to apply his research skills to policy having served as a Senior Advisor in the Office of the Assistant Secretary for

Planning and Evaluation from 2010-2011, during implementation of the Affordable Care Act.

Dr. Huang's expertise in health policy, health economics, and geriatric diabetes has made him highly sought after mentor – leading to mentees from diverse disciplines including endocrinology, geriatrics, pharmaceutical science, surgery, and pulmonary/critical care. He has mentored 40 research trainees, who have received 7 NIH/AHRQ K awards and produced over 120 peer-reviewed publications. His mentees come from all levels of training and include students (21), fellows (9) and faculty (10). In 2015, he received an NIDDK K24 Mid-Career Investigator Award in 2015, which is external recognition of his track record for outstanding mentorship. As further testament to Dr. Huang's qualities as a mentor, both winners of the Leif Sorensen Faculty Research Award (Drs. Laiteerapong and Huis-ingh-Scheetz) in 2019 were mentees of Dr. Huang.

In 2012, Dr. Huang founded the Center for Chronic Disease Research and Policy (CDRP) with the mission of improving the care and health of individuals at risk for and suffering with chronic

diseases. The costs of chronic diseases are a source of the unsustainable growth of governmental health care budgets and all countries are trying to provide more high-quality care for their people within budgetary constraints. To support efforts to address these challenges, the CDRP specializes in the three core areas of research: Cost effectiveness analysis and medical decision making; Claims data research; and the new UChicago Practice-Based Research Network.

Dr. Huang's research has been supported by the National Institutes of Health, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, the American Diabetes Association, and the Juvenile Diabetes Research Foundation, and the Health Resources and Services Administration (HRSA). He has received numerous honors including the Research Paper of the Year Award from the Society of General Internal Medicine and elected membership to the American Society for Clinical Investigation. Dr. Huang received his A.B., M.D., and M.P.H. from Harvard University and joined the University of Chicago in 2001.

Drs. Neda Laiteerapong, Rochelle Naylor, Siri Greeley, Elbert Huang, Anastasia Harris and Lisa LeFournau at a recent ADA meeting



## FACULTY HIGHLIGHT: HEDY LEE KINDLER, MD

Professor of Medicine (Hematology/Oncology)  
Associate Vice Chair for Clinical Research

In May, 2019 Dr. Kindler was appointed as Associate Vice Chair for Clinical Research for the Department of Medicine where she is responsible for strengthening the Department's clinical research enterprise.

**Hedy Lee Kindler, MD** is a medical oncologist and clinical researcher who designs clinical trials to evaluate new agents for the treatment of malignant mesothelioma and pancreatic cancer. She is internationally recognized as an innovator in the evaluation of novel therapeutics for pleural and peritoneal mesothelioma, specifically agents targeting immune checkpoints, vascular endothelial growth factor, and mesothelin. As the Director of the University of Chicago Medicine (UCM) Mesothelioma Program, she leads a comprehensive multidisciplinary clinical trial and translational research program and runs a prominent clinical program which attracts patients from across the US and around the world.

In collaboration with cancer geneticist Jane Churpek, MD, Dr. Kindler's team recently identified that a significant proportion of mesothelioma patients carry germline mutations in cancer susceptibility genes, especially patients with peritoneal mesothelioma, minimal asbestos exposure, young age, and a second cancer diagnosis. These data support routine clinical germline genetic testing for mesothelioma patients and provide a rationale for her investigation of agents that target the homologous recombination pathway.

As an internationally recognized disease expert and thought leader, Dr. Kindler has also focused on establishing evidence-based treatment and staging guidelines for pleural mesothelioma. She was the Expert Panel co-chair and lead author of the comprehensive American Society of Clinical Oncology Clinical Practice Guideline on the treatment of pleural mesothelioma. She also plays an integral role in the development of the current staging system for mesothelioma, as the chair of

the International Association for the Study of Lung Cancer Mesothelioma M Staging committee.

Dr. Kindler also led the Gastrointestinal Oncology Program at UCM for almost 20 years, developed a robust and comprehensive GI clinical trials program, and designed and led many pivotal national and international randomized trials investigating novel agents for pancreatic cancer.

Notably, Dr. Kindler led the practice-changing phase III POLO trial, "Olaparib as maintenance treatment following first-line platinum-based chemotherapy in patients with a germline BRCA mutation and metastatic pancreatic cancer", which she presented in the Plenary Session of the American Society of Clinical Oncology Annual Meeting in June 2019 and which was simultaneously published in the New England Journal of Medicine. These results were the first from a phase III trial to validate a targeted treatment in a biomarker selected population of pancreatic cancer patients and are expected to lead to FDA approval of the PARP inhibitor olaparib for metastatic pancreatic cancer patients with a germline BRCA mutation.

On May 1, 2019 Dr. Kindler was appointed as Associate Vice Chair for Clinical Research where she is responsible for strengthening the Department's clinical research enterprise. She is specifically focusing her efforts on developing and implementing a strategy for growth of the Department's clinical research operations across all sections and in collaboration with the Biological Science Division's Office of Clinical Research, and creating a departmental mechanism for review and prioritization of clinical trial proposals. Dr. Kindler also plays an important role in supervising clinical research for the University of Chicago

Comprehensive Cancer Center (UCCCC). As the Chair of the Clinical Trials Review Committee, she oversees the scientific protocol review of all cancer-related clinical research performed at UCCCC. As the Lead Principal Investigator of the National Cancer Institute National Clinical Trials Network Lead Academic Participating Site UG1 grant, she provides the scientific and administrative leadership for the conduct of multi-institutional clinical trials.

As a mentor, Dr. Kindler has demonstrated an outstanding ability to guide young clinical investigators to successful careers in oncology clinical research. Her former trainees are on faculty at leading cancer centers across the US.

Dr. Kindler serves on the Executive Committee and the Board of Directors for the Alliance for Clinical Trials in Oncology and leads mesothelioma research for the Alliance. She is Past President of the International Mesothelioma Interest Group and is a member of the Mesothelioma Task Force for the International Association for the Study of Lung Cancer. She is a Fellow of the American Society of Clinical Oncology and is repeatedly listed in Best Doctors in America, America's Top Doctors for Cancer, Exceptional Women in Medicine and Top Doctors in Chicago, and received the Dr. Irving Selikoff Lifetime Achievement Award from the Asbestos Disease Awareness Organization. An engaging speaker, she lectures widely across the world.

Dr. Kindler received her fellowship training in Hematology/Oncology at Memorial Sloan-Kettering Cancer Center. She served on the faculty at Roswell Park Cancer Institute for 3 years before her recruitment to the Department of Medicine as an assistant professor of medicine in 1999.





## CLINICAL PROGRAMS OVERVIEW

The Department of Medicine's clinical programs are recognized for excellence across a broad spectrum of subspecialty patient care services for the treatment of highly complex diseases and are comprised of dedicated clinical innovators who are committed to advancing discoveries that transform patient care and health outcomes. Significant highlights from the past academic year include increased activity across all clinical operations, improved patient access and national recognition for the state-of-the-art clinical programs.

The Department of Medicine (DOM) is an institutional leader as measured by faculty size and physician work RVU generation, and a major contributor to the overall success of the University of Chicago Medicine (UCM). In FY19 DOM clinical faculty continued to perform at a strong level by generating over 1.24 million physician work RVUs (wRVUs), representing a significant portion of the clinical practice activity of the entire UCM and a 6% increase over last fiscal year. On the inpatient side, admissions increased 8% to approximately 15,500. Supporting the inpatient operations, the Section of Hospital Medicine grew their clinical footprint covering over 130 patients in UCM per day (representing over 33% of UCM patients). To meet this growing need, over 25 new hospitalists were recruited recently. Moreover, with leadership from Matthew Sorrentino,

MD, Vice Chair for Clinical Operations, the DOM led efforts focused on redesigning the inpatient clinical services to optimize patient care across two hospitals due to increasing numbers and to allow for better geographic concentration of patients. This included redesigning the general medicine resident service, expanding hospital medicine, and the developing and implementing APP service models for advanced heart failure and leukemia.

In FY19 the DOM's onsite outpatient subspecialty practices and primary care visits totaled 204,400 (+ 2.6% over last year) while the offsite subspecialty practices at 150 E. Huron and at South Shore Senior Health Center recorded nearly 15,000 and 7,000 visits, respectively. The Orland Park Outpatient Facility recorded 3,400 visits. Led by Dr. Sorrentino, ambulatory patient access

was improved with expanded open access and overbooking initiatives, template modifications and make-up clinics. In addition, new initiatives were established to reduce the no show rate, and improve the urgent medical advice process to ensure that patient calls were addressed promptly. Within oncology, a rapid assessment clinic (ORAC) was developed under the leadership of Blase Polite, MD and Olwen Hahn, MD which has successfully prevented cancer patients from waiting in the Emergency Department (ED). Since its inception in March 2019, over 100 patients were referred to ORAC resulting in a decrease in ED visits and hospital admissions.

With leadership from Linda Druelinger, MD and Thomas Spiegel, MD the new, state-of-the-art adult ED witnessed a significant increase in patient volume since its opening in December 2017. This past year the number of patients presenting to ED for care totaled 75,000, an increase of 9.5% from last year. The Trauma Center, which opened in May 2018, has provided 3,000 patients with acute care. Since the opening, the Trauma Center has become one of the busiest trauma centers in the state of Illinois providing care to patients presenting with potentially life threatening injuries.

Gastroenterology (GI) procedure volumes totaled over 20,000 with the largest increase in



Drs. Vela and Smith-Nunez

colonoscopies and interventional procedures, the majority from endoscopic bariatric procedures including endoscopic sleeve gastropasty. The Center for Endoscopic Research and Therapeutics expanded endoscopic treatments for the obesity program, performing endoscopic suturing, and endoscopic balloon procedures for obesity management. The Department's cardiac programs had a highly successful year with the electrophysiology program experiencing a 7.5% procedural growth with more than 120 ventricular tachycardia (VT) ablations, representing one of the largest epicardial VT ablation programs in the country. The number of echocardiograms performed continued to rise and exceeded 20K studies per year. Cardiac MRI procedures also increased, reaching about 800 scans during this past year. Interventional cardiology also witnessed an increase in volumes, especially in structural heart disease and pulmonary artery procedures.

In FY19, 349 transplants were performed with bone marrow transplants accounting for 42% (145) of the volume. With the FDA's approval of CAR- T cell therapy for adult patients with certain blood cancers, UCM is the first center in the Chicago metropolitan area to have this therapy available as a standard of care. This year a total of 23 CAR T-cell procedures were done. The Advanced Heart Failure Program continues to grow and thrive. Over the past year, 42 transplants were performed, including 4 combined heart-liver-kidney triple transplants, 2 heart-liver double transplants, and 3 heart-kidney double transplants. The anticipated 1 year survival of heart transplant patients is 97.3%, which represents one of the highest survival rates in the country.

DOM physicians continued to serve the city and region with significant presence at the UCM

offsite practices in Orland Park and in Chicago's South Loop. In addition, cardiology, GI and liver physicians have increased their clinical services at several satellite clinics in northwest Indiana and southern Illinois. GI also began performing endoscopic procedures at the 900 N Michigan Avenue Surgery Center. The Section of Nephrology's joint venture with DaVita resulted in the opening of a 6th outpatient dialysis unit, Brighton Park, with a 7th anticipated in FY20. The DOM looks forward to opening of the UCM's new ambulatory site at the River East Center that will offer eight subspecialty services (dermatology, endocrinology, GI, nephrology, rheumatology, sleep, pulmonary medicine, and cardiology) and primary care.

Three DOM specialties made the national top 50 list as part of the *USNWR* 2019-20 Best Hospitals ranking that were published in July 2019. Cancer rose to #31 from #33 the previous year, gastroenterology moved up to #22 from #47 the previous year, and nephrology improved to #31 after being listed as "high performing" in 2018. Geriatrics was ranked as a high performing specialty. *Chicago* magazine's annual "Top Doctors" list included nearly 30 physicians from the Department out of a total of 82 for UCM. In FY19 UCM continued to be recognized as one of the safest hospitals in the country for the 15th consecutive time by the prestigious and independent Leapfrog Group garnering "Straight A's" designation for its consistency in delivering the highest level of quality and protecting its patients from preventable medical errors, injuries and infections while in the hospital.

Within the area of clinical research, many of the DOM's dedicated clinicians conduct practice changing clinical research that impacts patient care with a multitude of groundbreaking therapies, technologies, and quality improvements.

## DEPARTMENT OF MEDICINE CLINICAL AWARDS



Dr. Vokes and B. Smith



Dr. Vokes and N. Stankus



Dr. Vokes and S. Smith

### Clinical Productivity Awards:

- Procedure Activity: **Mary Hammes, MD**
- Evaluation & Management: **John Purakal, MD**
- Patient Visits: **Corey Tabit, MD**
- Overall Clinical Activity: **Nicole Stankus, MD**

### Outstanding Clinical Service:

**Tamar Polonsky, MD**

### Clinical Service (New Faculty):

**Bryan Smith, MD**

### Patient Satisfaction:

**Sonali Smith, MD**

The DOM has a robust and highly productive therapeutic clinical trials program and broad expertise in drug development, especially targeted therapies. In FY19 the Department conducted more than 1,600 clinical research studies, including nearly 500 industry-funded studies.





## RESEARCH PROGRAMS OVERVIEW

The Department of Medicine has a long tradition of conducting original and rigorous biomedical and clinical research that is highly innovative and impactful. Discovery and translational investigations are critical to advancing the scientific mission. FY19 was an extraordinary year due to the success of the faculty who competed for a record high of \$169M in external research funding and published over 1,600 original articles to further advance that goal. Additionally, the Department continued to strengthen its clinical research mission with the appointment of Hedy Kindler, MD as Associate Vice Chair for Clinical Research. Furthermore, the Department's history of excellence in the training, development and mentorship of young scientists resulted in nearly a dozen junior faculty investigators earning their first independent NIH research funding or individual NIH K awards.

During the past academic year, the Department of Medicine's research portfolio totaled nearly \$122M in federal awards, \$32.6M in industry funded grants/clinical trial earnings and over \$15M in non-federal awards. In FY19, Medicine faculty acquired 85 new or competitively renewed federal awards resulting in a 44% increase in federal grant funding as compared to the previous year. Noteworthy high impact grants include a \$17M award to John Schneider, MD to develop a methodology and advanced analytics resource center (MAARC) to fight opioid addiction and overdoses in criminal justice populations, and the renewal

of the Expanded HIV Testing and Linkage to Care Program by the Chicago Department of Public Health (David Pitrak, MD - PI). Nanduri Prabhakar, PhD was awarded a new P01 focused on the integrative consequences of intermittent hypoxia. Louis Philipson, MD, PhD was awarded a U54 to develop a center for the identification and study of individuals with atypical diabetes mellitus. Other new significant grants with over \$1M in annual total costs each were awarded to Olufunmilayo Olopade, MD, Elbert Huang, MD, Andrey Rzhetsky, PhD and Marcus Clark, MD. Five junior faculty investigators, Drs. Neda Laiteerapong, Yang Li,

Peter O'Donnell, Valerie Press and Rosie Wu earned their first independent NIH research funding in FY19. Vineet Arora, MD was named as a 2018 Macy Faculty Scholar by the Josiah Macy, Jr. Foundation for her project focused on enabling health care providers to practice in well-functioning teams providing safe, high quality, and high value care.

The Department of Medicine is committed to training the next generation scientists in biomedical research, and is home to twelve T series, three K12 training programs and 17 K (career development) grants. In FY19, two training programs, the Medical Scientist Training Program (Marcus Clark, MD - PI) and the Basic Medical Research Training in Oncology (Olufunmilayo Olopade, MD - PI) were successfully renewed. Dr. Schneider was awarded a K12 to support training in HIV related-cardiovascular disease and sleep disorders. Three junior faculty, Drs. Moira McNulty, Randy Sweis, David Wu, and postdoctoral scholar, Lindsay Young, received new individual NIH K awards.

In FY19, Hedy Kindler, MD was appointed as Associate Vice Chair for Clinical Research. Dr. Kindler is a clinical-translational investigator who is highly experienced in designing and leading innovative clinical trials. In her new role, Dr. Kindler is focusing her efforts on developing and implementing a strategy for growth of the clinical research

2019 Research Day  
Trainee Abstract Winners  
with Dr. Ross Levine & Dr. Vokes



2019 Research Day  
Faculty Abstract Winners



## DEPARTMENT OF MEDICINE FEDERAL PROGRAMMATIC AWARDS

- Infections and the Stability of Transplantation Tolerance (P01) – **Marisa Alegre, MD, PhD**
- Diabetes Research Training Center (P60) – **Graeme Bell, PhD**
- Inflammatory Bowel Disease and Mucosal Inflammation, Immunology, and Microbiology of the G.I. Tract (P30) – **Eugene Chang, MD**
- Chicago Center for Diabetes Translation Research (P30) – **Marshall Chin, MD & Monica Peek, MD**
- University of Chicago Comprehensive Cancer Center (P30) – **Michelle Le Beau, PhD**
- UChicago Interdisciplinary Cancer Health Disparities SPORE Planning Grant (P20) – **Olufunmilayo Olopade, MD\***
- Integrative Consequences of Hypoxia (P01) – **Nanduri Prabhakar, PhD\***
- Pathogenesis of Calcium Nephrolithiasis (P01) – **Elaine Worcester, MD**

## SELECT HIGH IMPACT FEDERAL AWARDS:\*

- Medical Scientist Training Program – **Marcus Clark, MD\***
- Developing and Operating a Data Commons Framework Services – **Robert Grossman, PhD\***
- The AnVil Data Ecosystem – **Robert Grossman, PhD\***
- The Genomic Data Commons (Phase 6) – **Robert Grossman, PhD\***
- Alliance NCORP Research Base – **Gini Fleming, MD**
- Alliance for Clinical Trials in Oncology Operations Center – **Gini Fleming, MD\***
- Financial Analysis Research Agenda (FARA) – **Elbert Huang, MD\***
- Cook County Colon Cancer Alliance to Reignite and Enhance Screening (CDC) – **Karen Kim, MD**
- ACCISIS-Chicago (UG3) – **Karen Kim, MD\***
- Developing an Oncology Workforce for the 21st Century (K12) – **Olufunmilayo Olopade, MD**
- Center for Identification and Study of Individuals with Atypical Diabetes Mellitus (U54) – **Louis Philipson, MD, PhD\***
- University of Chicago Program for Expanded Human Immunodeficiency Testing for Disproportionately Affected Populations in Healthcare Settings in Chicago (CDPH) – **David Pitrak, MD**
- Therapeutic Targeting of Carotid Body Chemoreflex for Sleep Disordered Breathing (UH2) – **Nanduri Prabhakar, PhD**
- Methodology and Advanced Analytics Resource Center (U2) – **John Schneider, MD\***
- Discovery and validation of neuronal enhancers associated with the development of psychiatric disorders (U01) – **Andrey Rzhetsky, PhD\***
- ITM 2.0 Advancing Translational Science in Metropolitan Chicago (UL1) – **Julian Solway, MD**

\*Represents \$800K+ in annual total cost funding

\*New / competitively renewed in FY19

A list of the DOM's FY19 Total Sponsored Research Awards can be found at: [medicine.uchicago.edu](http://medicine.uchicago.edu)

operations. In FY19, the Department conducted more than 1,600 clinical research studies resulting in an all-time high of \$30M in clinical trial earnings.

The 5th annual Janet D. Rowley Research Day was held on March 12, 2019 with an outstanding presentation by Ross Levine, MD, Director of the Memorial Sloan Kettering Center for Hematologic Malignancies and Laurence Joseph Dineen Chair in Leukemia Research. Best abstract winners in the faculty category were **Drs. Wu, Lauren Gleason, Adriana Olson, and Susan Sam**. In the trainee category best abstract winners were **Chin-Fan Yeh, MD, Emeka Anyanwu, MD, William Parker, MD, and Carole Henry, PhD**.

Recognizing the research success of two outstanding mid-level scientists the Department selected **Dr. Laiteerapong and Megan Huis-ingh-Scheetz, MD** as the recipients of the 2019 Leif B. Sorensen, MD, PhD Faculty Research Award. Dr. Laiteerapong focuses her work on how to individualize diabetes and chronic disease care at the population- and health-system levels and Dr. Huis-ingh-Scheetz studies the role of activity in the pathophysiology of frailty and aging.





## EDUCATIONAL PROGRAMS OVERVIEW

In a supportive environment focused on providing exceptional care to our patients on the South Side of Chicago, the Department of Medicine (DOM) is deeply committed to the education and training of skilled physician scientists and leaders bound for careers in academic medicine. Under the leadership of John McConville, MD, the Department's educational programs continue to successfully prepare trainees for careers in clinical medicine, teaching, and biomedical research. Within the Internal Medicine Residency (IMR) program, 90% of the graduates pursue sub-specialty training. The 2018 fellowship match successfully matched 35 residents into many of the most competitive and premier fellowship programs in the country, including 14 who continued their training at the University of Chicago. Cardiology and gastroenterology were the most popular fellowship choices with 8 housestaff in each matching to outstanding programs across the country. Other frequent fellowship choices included pulmonary/critical care (5), hematology/oncology (4), nephrology (3) and infectious disease (2).

In FY19, Amber Pincavage, MD and Jason Alexander, MD led the Internal Medicine Intern Selection Committee. An exceptional PGY 1 class of 41 interns was successfully recruited from 1,900 applicants. IMR applicants from some of the

most prestigious medical schools continue to be attracted to the rigorous clinical training, diverse patient population, outstanding faculty mentorship, and cutting edge therapeutic interventions. 20% of the new intern class is underrepresented

minorities. The Physician Scientist Development Program (PSDP), which is led by Drs. James Liao and Sonia Kupfer, recruited three outstanding MD/PhDs to continue their residency and fellowship training in gastroenterology, geriatrics and infectious disease at the University of Chicago.

Under the leadership of Christine Babcock MD, MSc, the Emergency Medicine Residency Program continues to provide outstanding clinical training, scholarship opportunities and leadership development for 16 talented Emergency Medicine residents each year. In FY19, an outstanding class of 16 PGY 1 interns was recruited from 1,400 applicants representing many of the top medical schools in the country. In addition, 25% of the new intern class are underrepresented minorities. The quality and achievements of the new intern class are remarkable. From the graduating PGY 3 residents, over 50% of the class matched in competitive fellowships across the country. The Section of Emergency Medicine continues to expand its own fellowship programs and successfully recruited top candidates for the medical education and emergency medical services fellowships while the global health medical education fellowship and administration fellowship continue to train their respective fellows. A brand new, state of

the art Adult Emergency Department serves as a comprehensive stroke and STEMI center, as well as one of the busiest Level 1 Trauma Centers in the country. This continues to be an outstanding educational and training environment for all learners at the institution, while serving as a much needed resource for the local community.

The Section of Dermatology endeavors to provide excellent resident and fellowship education and training while furthering the field of academic dermatology and delivering comprehensive skin care to a diverse patient population. The Section hosted the annual Chicago Dermatological Society Educational Conference in December, 2018. This event included the Resident/Basic Science Lecture presented by Victoria P. Werth, MD, Chief, Division of Dermatology at Veterans Administration Hospital in Philadelphia, PA. Dr. Werth presented two lectures: the Resident/Basic Science Lecture on new developments in dermatomyositis and the Allan L. Lorincz Guest Lecture on new developments in pathogenesis and treatment. The Dermatology Residency Program, led by Sarah Stein, MD received 600 applications in 2018 and successfully matched outstanding candidates to each of the three available positions. The Program again joined with the IMR Program to offer a joint preliminary internal medicine/advanced dermatology track to enable candidates to complete internship and specialty training within the institution. The Section hosted a busy elective and observer program reaching 22 Pritzker medical students and visiting medical students on the clinical dermatology elective rotation; 11 Pritzker and visiting students, and 22 Pediatrics, Pathology, and Geriatric residents/fellows on dermatology electives, and 1 visiting resident observer through the Center for Global Health. The Dermatopathology Fellowship (Christopher Shea, MD- Director) attracts dermatology and pathology trained graduates seeking specialty training in dermatopathology, with 57 applicants for one training position.

In FY19, the Medicine/Pediatrics Residency Program, led by Rita Rossi-Foulkes, MD had another successful match, recruiting 4 top ranked candidates into their 4 open slots. New FY20 residents consist of graduates from the University of Michigan, Geisel School of Medicine at Dartmouth, University of Illinois College of Medicine and Chicago Medical School at Rosalind Franklin University of Medicine and Science. Among the intern class are members of Alpha Omega Alpha and the Gold Humanism Honor Society, a Fulbright Scholar, and AmeriCorps alumni with

collective interests in global health disparities, palliative care, adverse childhood experiences, adolescent and young adult oncology health care disparities, and population health. One quarter of the intern class is URM and all have been leaders at their respective medical schools and have dedicated themselves to serving vulnerable populations. In FY19, two graduates completed the LUCENT track and one resident completed the MacLean Center Fellowship in Medical Ethics. Both LUCENT graduates are working at federally qualified health centers in urban underserved settings, one in Chicago and one in Los Angeles. Two graduates remained at the University of Chicago Medicine, one graduate is serving as a Pediatric Chief Resident and the other as a fellow in the Gastroenterology, Hepatology & Nutrition.

**Honors:** The Department of Medicine's extraordinary pool of talented educators continues to be recognized for their excellence in undergraduate and graduate medical education both institutionally and nationally. In FY19, nine Medicine faculty were recognized as "Favorite Faculty" by the Pritzker graduating. **David T. Rubin, MD** and **Valerie Press, MD** were honored was the 2019 John D. Arnold Mentor Award. **Elbert Huang, MD** was awarded the Department's Arthur Rubenstein Mentorship Award. Within the Biological Sciences Division, **Helen Te, MD** was the recipient of the Faculty Physician Peer Role Model Award; **Shannon Martin, MD** was the recipient of the Distinguished Educator/Mentor Award and **Vineet Arora, MD** received the Francis Straus Mentorship Award.

The Department of Medicine has a well-established track record of excellence in the educational training, development and mentorship of bright young trainees poised for future leadership in biomedical sciences. In this respect, senior investigators continue to provide a nurturing environment that fosters critical thinking, challenging paradigms, and a collaborative spirit geared toward maximizing the future research potential of each trainee. The DOM is the home to several nationally recognized medical research training programs, including 11 NIH-funded training (T32s) grants in cardiology, adult and pediatric endocrinology, oncology, respiratory biology, digestive diseases, mental health and disease, clinical therapeutics, social science and aging, as well as the medical scientist training program. The DOM also holds three NIH K12 grants in oncology, HIV-related - cardiovascular disease and outcomes research, and five F series NIH awards.

### Division of Biological Sciences Awards:

**Faculty Physician Peer Role Model Award:**  
**Helen Te, MD**  
**Distinguished Educator/Mentor (Junior) Award – Shannon Martin, MD**  
**Francis Straus Mentorship Award - Vineet Arora, MD**

### Department of Medicine Awards:

**Preclinical Teacher of the Year – Adam Cifu, MD**  
**Clinical Teacher of the Year – Keme Carter, MD**  
**Postgraduate Teaching – Hemal Nayak, MD**  
**Arthur Rubenstein, MD Mentorship Award – Elbert Huang, MD**

### Medicine Resident Teaching Awards:

Kamala Cotts, MD  
Philip Hoffman, MD  
Kirk Spencer, MD  
Wendy Stock, MD  
Todd Stern, MD

### Emergency Medicine Resident Awards:

Outstanding Emergency Medicine Faculty Member Clinical Teaching – Alejandro Palma, MD  
Outstanding Emergency Medicine Faculty Member Mentorship – Paul Quincy Moore, MD

### Resident Research Day 2019

Most Outstanding Research Poster – Adam Vohra, MD  
Housestaff Choice Award – Kent Brummel, MD  
Most Outstanding Clinical Vignette – Anthony Kanelidis, MD

### Pritzker School of Medicine Education and Mentorship Awards:

#### AOA Award Banquet:

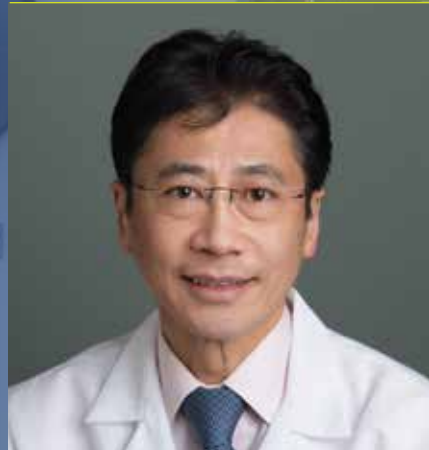
Alumni Honoree: Abdullah Pratt, MD  
Faculty Honoree: Jason Alexander, MD

#### Favorite Faculty Award Winners:

Adam Cifu, MD  
Keme Carter, MD  
Jeanne Farnan, MD  
Wei Wei Lee, MD  
Peter O'Donnell, MD  
Jason Poston, MD  
Scott Stern, MD  
Monica Vela, MD  
James Woodruff, MD



## SECTION OF CARDIOLOGY



Dr. James K. Liao

Under the leadership of James K. Liao, MD, the Section of Cardiology enjoyed another successful academic year with many accomplishments and innovations pertaining to the tripartite mission of patient care, research and education.

In FY19, the Section welcomed Amita Singh, MD to the faculty. Dr. Singh is a non-invasive cardiologist with experience in diagnostic and structural echocardiography, as well as with advanced imaging modalities of cardiac CT and cardiac MRI in diagnosis and treatment of cardiovascular disease. Dr. Singh's research interests focus on the study of novel imaging techniques within cardiac imaging to improve the accuracy and diagnosis of common cardiac conditions. More specifically, she has focused on newer methods for analysis of diastolic function with echocardiography, and cardiac MRI imaging in patients with cardiac devices.

The Section's clinical activities continued to grow in terms of patient volume, visits, procedures and innovative diagnostics. Within the Cardiac Imaging Program (Roberto Lang, MD - Director), the number of echocardiograms performed contin-

ued to rise and exceeded 20K studies per year. Cardiac MRI procedures also increased, reaching about 800 scans during this past year. The Electrophysiology Program (Roderick Tung, MD - EP Director) experienced a 7.5% procedural growth with more than 120 ventricular tachycardia (VT) ablations, representing one of the largest epicardial VT ablation programs in the country. The Robotic Ablation Program in collaboration with cardiac surgeon, Husam Balkhy, MD, continued to grow and remains as the only program in world to perform left ventricular (LV) summit ablation totally endoscopic. In addition, atrial fibrillation (AF) ablations (>120 cases) have more than doubled from 3 years ago. The Interventional Cardiology Program (Sandeep Nathan, MD and Atman Shah, MD - Co-Directors) also witnessed an increase in volumes, especially in structural heart disease and pulmonary artery procedures. The Advanced Heart Failure Program (Gene Kim, MD - Interim Director) continues to grow and thrive. Over the past year, 44 transplants were performed, including 4 combined heart-liver-kidney triple transplants, 2 heart-liver double transplants, and 3 heart-kidney double transplants. The anticipated 1 year survival of heart transplant patients will be 97.3%, which represents one of the highest survival rates in the country. Within the General and Preventive Cardiology Programs (Matthew Sorrentino, MD and Tamar Polonsky, MD - Co-Directors), the



Dr. Amita Singh

outpatient clinic visits have exceeded 20K per year, while the inpatient general cardiology services had an average daily census of about 24 patients on the floor and 14 patients in the CCU. Finally, the Cardio-Oncology Program (Jeanne DeCara, MD - Director) continues to grow with plans to expand the program to offsite facilities including Orland Park, Silver Cross, River North, and Ingalls.

The Section's research efforts continued to place them at the forefront of innovations and therapeutics and resulted in over 100 manuscripts this past year including seminal papers in the *New England Journal of Medicine*, *JAMA*, *Circulation* and the *Journal of the American College of Cardiology* and other prestigious subspecialty journals. New funding included a NIH R01 to Rongxue Wu, PhD investigating a novel regulator of cardiac vascular endothelial barrier function in heart failure. Corey Tabit, MD was awarded a \$100,000 grant from the Center for Data Analysis and Computing to study the effects of social determinants of health on cardiovascular disease.

In the educational realm, the Section is home to one of the nation's oldest National Institutes of Health-funded T32 cardiovascular research programs, recently renewed for the 41st year, as well as four ACGME accredited fellowship training programs. The 10th annual Morton F. Arnsdorf Cardiovascular Sciences Research Day, chaired by Francis Alenghat, MD, PhD featured nearly 106 presentations by faculty and trainees in Cardiology, Cardiovascular Surgery, Vascular Surgery, Pediatric Cardiology, Neurosurgery, Pulmonary and Critical Care Medicine, and Emergency Medicine.



FY20 Cardiology Faculty

### DISCOVERIES AND INNOVATIONS:

- Discovered that left bundle-branch block is often due to block within the left sided His, rather than the LBB (Upadhyay, Tung, Beaser, Aziz, Ozcan, Nayak, Broman, et al., *Circulation*, 2019)
- Conducted a secondary analysis of His SYNC trail comparing His-bundle pacing versus conventional pacing (Upadhyay, Tung, Nayak, Beaser, Aziz, Lang, et al, *Heart Rhythm*, 2019)
- Completed the first randomized trial on a hemodynamic based speed optimization study in LVAD patients, the RAMP-IT UP trial. (Imamura, Kim, Sarswat, Chung, Nguyen, et al, *Circulation Heart Failure*, 2019)
- Determined the impact of Omega-3 fatty acid therapy on GI bleeding (Imamura, Nguyen, Kim, Sarswat, Kalantari, Smith, Chung et al, *Circulation Heart Failure*, 2018)
- Found that rising violent crime in Chicago (2014-2016) was associated with increased blood pressure during a temporal crime surge (Tung, Tabit, Liao, et al, *American Journal of Hypertension*, 2019)
- Highlighted the importance, and potential prognostic implications, of circulating monocyte and descendant macrophage phenotypes in coronary artery disease (Alenghat, Paul, Shah, Nathan et al, *Experimental Physiology*, 2019).

#### PROFESSORS:

James Liao, MD (Chief)  
Jeanne DeCara, MD  
Dorothy Hanck, PhD\*\*  
Roberto Lang, MD  
Victor Mor-Avi, PhD\*  
Matthew Sorrentino, MD  
Parker Ward, MD

#### ASSOCIATE PROFESSORS:

Sandeep Nathan, MD, MSc  
Hemal Nayak, MD  
Amit Patel, MD  
Tamar Polonsky, MD, MSCI  
Atman Shah, MD  
Roderick Tung, MD

#### ASSISTANT PROFESSORS:

Karima Addetia, MD  
Francis Alenghat, MD, PhD  
Zaid Aziz, MD  
Andrew Beaser, MD  
John Blair, MD  
Michael Broman, MD, PhD  
Jonathan Grinstein, MD\*  
Sara Kalantari, MD  
Rohan Kalathiya, MD\*  
Gene Kim, MD  
Ann Nguyen, MD\*  
Cevher Ozcan, MD  
Jonathan Paul, MD  
Nitasha Sarswat, MD  
Amita Singh, MD

Bryan Smith, MD  
Corey Tabit, MD, MBA, MPH  
Gaurav Upadhyay, MD  
Rongxue Wu, PhD\*

#### INSTRUCTOR:

Wendy Hernandez, PhD

#### CLINICAL ASSOCIATES:

Bow (Ben) Chung, MD  
Marlon Everett, MD  
Ankur Shah, MD  
Evan Stein, MD

#### PART TIME

Michael Davidson, MD

#### SECTION ADMINISTRATOR

Noel Frierson-Lyttle

\* New FY20 faculty  
\*\* Research track faculty  
\*\*\* Emeritus

### ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Drs. Michael Davidson, James Liao, Matthew Sorrentino, Roderick Tung** - Named as Top Cardiologists by *Chicago* magazine (January 2019)
- **Roderick Tung, MD** - Named as Deputy Editor of *Journal of Cardiovascular Electrophysiology* and Gaurav Upadhyay, MD and Hemal Nayak, MD were appointed editorial board members
- **Sandeep Nathan, MD** - Appointed to 5-year term as course co-director for Complex Cardiovascular Catheter Therapeutics (C3) Summit
- **Tamar Polonsky, MD** - Served as the Vice Chair of the Evidence Review Committee for the ACC/AHA Guidelines for the Treatment of Blood Cholesterol and was chosen as the recipient of the 2019 Department of Medicine Outstanding Clinical Service Award
- **Francis Alenghat, MD, PhD** - Served on the Leadership Council, Academic Cardiology Section, American College of Cardiology
- **Corey Tabit, MD** - Recipient of the 2019 Department of Medicine Clinical Service (Patient Visits) Award
- **Bryan Smith, MD** - Recipient of the 2019 Department of Medicine Clinical Service (Junior Faculty) Award
- **Hemal Nayak, MD** - Recipient of the 2019 Department of Medicine Medical Resident Teaching Award



# SECTION OF COMPUTATIONAL BIOMEDICINE & BIOMEDICAL DATA SCIENCE



Dr. Robert L. Grossman  
Dr. Andrey Rzhetsky

Under the leadership of co-chiefs, Robert Grossman, PhD and Andrey Rzhetsky, PhD, the Section of Computational Biomedicine and Biomedical Data Science, continued to make significant strides as the intellectual home for faculty whose research interests encompass computational biomedicine, biomedical data science (data science and its applications to biology, medicine and healthcare), and biomedical informatics (bioinformatics, translational informatics, and clinical/medical informatics).

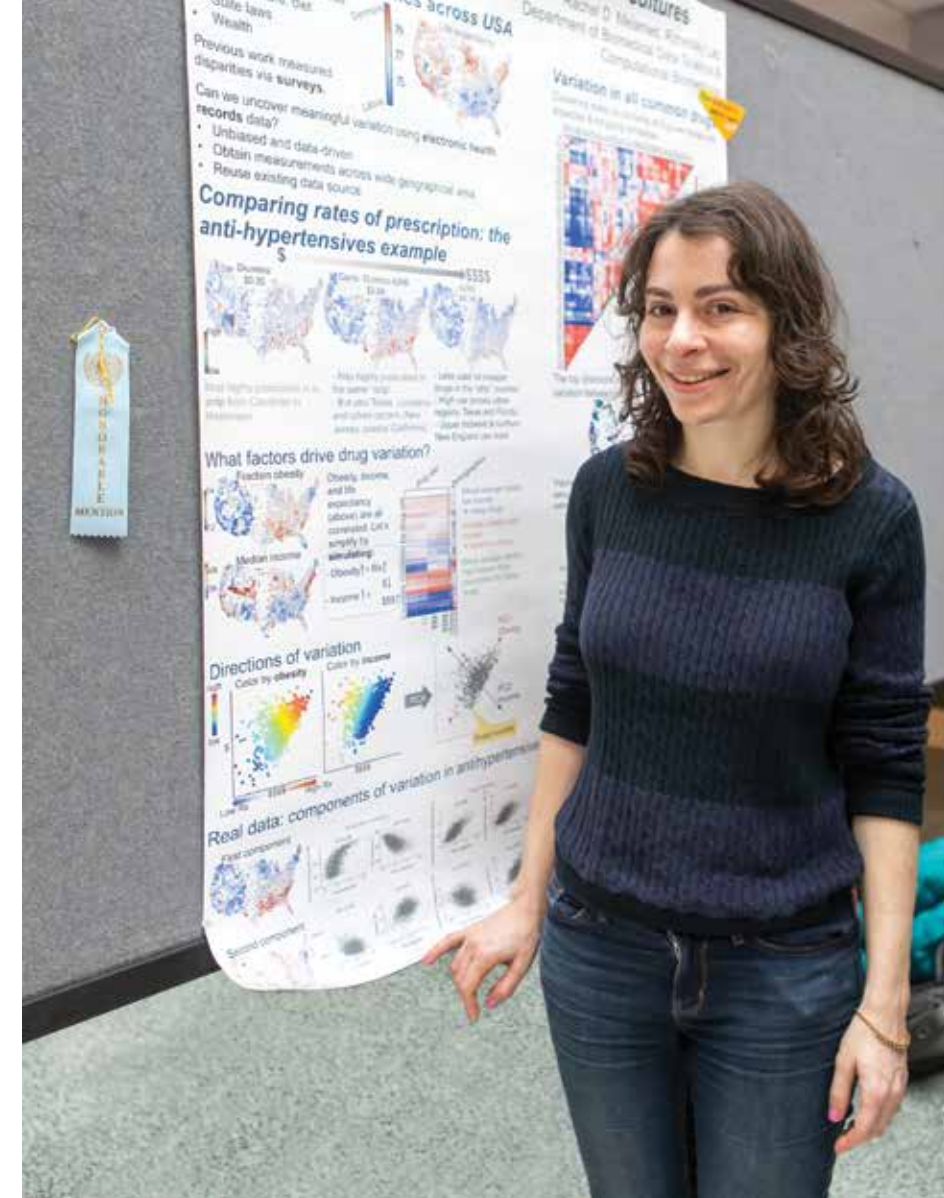
In FY19, Bohdan Khomtchouk, PhD joined the Section as a Pathways to Independence Instructor. Dr. Khomtchouk's research concerns the emerging field of cardioinformatics, working at the nexus of bioinformatics and cardiology. His principal research focus is on creating artificial intelligence and machine learning software to organize and better understand the world's cardiovascular disease knowledge (text and data) at a massive scale – working at the multidisciplinary interface of healthcare, algorithm design, software engineering, integrative bioinformatics, multi-omics, natural language processing, and statistical learning. Dr. Khomtchouk was previously involved in the NHLBI Trans-Omics for Precision Medicine (TOPMed) Whole Genome Sequencing Program (Atherosclerosis Working Group). Dr. Khomtchouk previously served as an American Heart Association (AHA) Postdoc-

toral Fellow in the Department of Biology and Department of Medicine (Division of Cardiovascular Medicine) at Stanford University.

In FY19, Dr. Grossman developed foundational software services called data commons framework services that allowed National Cancer Institute (NCI) to develop the first cancer data ecosystem for cancer researchers, which is called the NCI Cancer Research Data Commons. Today, these framework services support an ecosystem that contains genomic, proteomic, imaging and clinical data and a growing number of software applications supporting cancer research. During the past year, through work with various collaborators, these framework services have also been used to develop data commons to further research in other areas, including cardiovascular research (supported by NHLBI), birth defects (support-

ed by the Common Fund), pharmacogenomics (supported by NIMHD), and IBD (supported by NIDDK). The framework services also enable data to be integrated and analyzed from two or more of these separate systems as long as the researcher is authorized to access data from each of them.

During the past academic year, Dr. Rzhetsky and Atif Khan, PhD, led a study that suggested a significant link between exposure to environmental pollution and an increase in the prevalence of neuropsychiatric disorders. Based on analysis of large population data sets from U.S. and Denmark their study found that poor air quality is associated with increased rates of bipolar disorder and major depression in both countries. Using U.S. health insurance database of 151 million individuals with 11 years of inpatient and outpatient claims for neuropsychiatric diseases, they compared



Dr. Bohdan Khomtchouk

Dr. Rachel Melamed

Postdoctoral scholar, Rachel Melamed, PhD continued her research focused on using clinical data to identify FDA-approved drugs for cancer prevention and therapeutic repurposing as part of her NIH K01 award. Using this data to find drugs that increase cancer rates have the potential to provide insight into the disease and an opportunity for preventing some cancer cases. Discovery of drugs, and particularly drug combinations, that reduce cancer rates could suggest low-cost new therapeutic options. Dr. Melamed and Dr. Rzhetsky led a study that was published in *Nature Communications*, in 2018, that used medical claims data to develop and validate a framework to compare prescription rates of 600 popular drugs in 2334 countries. Their approach uncovered geographically separated sub-Americas, where patients receive treatment for different diseases, and where physicians choose different drugs for the same disease. The geographical variation suggested influences of racial composition, state-level health care laws and wealth. Some regions consistently prefer more expensive drugs, even when they have not been proven more efficacious than cheaper alternatives. The study showed the benefit of aggregating massive information on medical practice into a summarized and actionable form. Dr. Melamed also presented her work at the 2019 Department of Medicine Research Day where it won an honorable mention. She also received a travel award to collaborate at the NIH BD2K Data Science Innovation Lab this year.

the geo-incidence of claims to measurements of 87 potential air pollutants from the United States Environmental Protection Agency. The counties with the worst air quality had a 27 percent increase in bipolar disorder and 6 percent increase in major depression when compared to those with the best air quality. The team also found a strong association between polluted soil and an increased risk of personality disorder. In an effort to validate their findings, Dr. Rzhetsky and his team collaborated with Denmark-based researchers to analyze Danish national treatment registers with data from 1.4 million people born in Denmark between 1979 and 2002. The researchers examined the incidence of neuropsychiatric disease in Danish adults who had lived in areas with poor environmental quality up to their tenth birthdays. The associations the team found, especially for bipolar disorder, mirrored those in the United States: a 29 percent increase for those in counties with the worst air quality. Using this more specific Danish data, the team determined

that early childhood exposures correlated even more strongly with major depression (a 50 percent increase); with schizophrenia (a 148 percent increase); and with personality disorders (a 162 percent increase) over individuals who grew up in areas with the highest quality air. Findings from this study were published in *PLOS Biology*, 2019.

In new projects, Dr. Rzhetsky and Professor Pedro Lopes from the Department of Computer Sciences, are developing a mobile decision making interface for physicians in Nigeria with inadequate internet infrastructure, and no electronic medical records. This innovative project will build a mobile system running on conventional Android devices that allows doctors in Nigeria to access basic medical records and perform queries over encrypted text messages, as well as access real-time information on the spread of diseases such as contagious infections. Funding for this project was awarded from the University of Chicago Center for Data and Computing Data Science Discovery Grant Program.



## SECTION OF DERMATOLOGY



Dr. Diana Bolotin

On August 1, 2019 Diana Bolotin, MD, PhD, associate professor of medicine, was appointed as Chief of the Section of Dermatology. Dr. Bolotin served in an interim capacity since March 2018 during which time she demonstrated remarkable leadership, fortitude and thoughtful academic vision. Under the leadership of Dr. Bolotin, the Section had several accomplishments including the successful recruitment of two new faculty members, clinical growth at both onsite and at UCM satellite clinics and the expansion of the Section's research portfolio and associated high impact discoveries. As a fellowship-trained Mohs micrographic surgeon, Dr. Bolotin has expertise in a wide range of medical and surgical treatments within cutaneous oncology, including Mohs surgery and excision treatments of cutaneous neoplasms. Her clinical and academic interests span the field of cutaneous oncology and resident education. Having graduate training in skin biology, she is particularly interested in translational research of carcinogenesis, novel skin cancer therapies and advocacy. Dr. Bolotin is a recipient of the Medical Dermatology Society Mentorship Award, several Chicago Dermatologic Society research awards and the American Society for Dermatologic Surgery Cutting Edge Research Award, and has participated in numerous clinical trials within the field of procedural dermatology. She has authored multiple peer-reviewed journal articles and textbook chapters within the field, as well as presented at regional and national dermatology meetings. She serves on the editorial boards of the *Journal of the American Academy of Dermatology* and *Dermatologic Surgery* and is an Associate Editor for *Archives of Dermatological Research*. Dr. Bolotin is a member of the American Academy of Dermatology, Chicago Dermatologic Society, Women's Dermatologic Society, Society for Investigative Dermatology and American Society of Dermatologic Surgery. She is a co-chair of the ASDS Audit Committee and Research Work Group and is a fellow member in the American College of Mohs Surgery.



Dr. Mark Hoffman



Dr. Oluwakemi Onajin

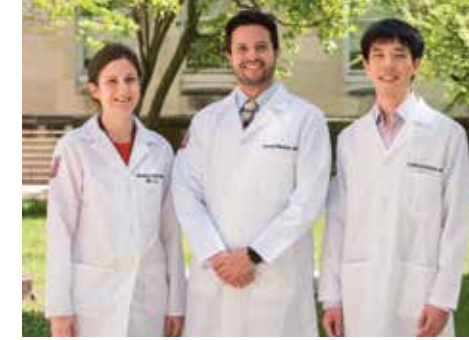
In FY19 the Section welcomed two new faculty members, Mark Hoffman, MD and Oluwakemi Onajin, MD. Dr. Hoffman, associate professor of medicine, is an expert in autoimmune skin diseases with specific expertise in neutrophilic dermatoses. Dr. Onajin, assistant professor of medicine, focuses her work on general dermatology, dermatologic procedures, and dermatopathology with particular interest in the field of autoimmune and rheumatologic skin disease. She, along with Dr. Hoffman, implemented a weekly Autoimmune Skin Disorder (AISD) specialty clinic that is coordinated with colleagues in the Section of Rheumatology.

As one of the top programs in the nation focused on understanding, diagnosing, and treating the skin and its diseases, the Section's clinical growth held steady in FY19, most notably with its dermatopathology and Mohs surgery clinical volumes. The new AISD specialty clinics, run by Dr. Hoffman and Dr. Onajin, have rapidly become a sought out resource for both existing rheumatology and complex dermatology patients, as well as new patients referred by external providers. Dermatology continued to expand its adult and pediatric off-site services in FY19, bringing on additional

off-site providers and expanding templates at existing satellite clinics particularly downtown at the Huron clinic and in the South Loop. Additionally, Section leadership has played a key role in the planning of the new Center for Advanced Care at River East, with Dermatology serving as one of the primary specialties, when it opens in early 2020.

The Section's investigative programs focus on the fundamental question of how cells respond to radiation and chemicals from internal or external sources to cause cancer. In FY19, Dr. Yu Ying He's laboratory led a new initiative studying the role of epitranscriptomics in DNA damage response, tumorigenesis, and therapeutic response. In FY19, Dr. He was awarded a new NIH R01 to study the mechanistic role of METTL14 in UVB-induced skin tumorigenesis, as well as a University of Chicago Comprehensive Cancer Center pilot grant to support her team's work on the role of the m6A RNA demethylase FTO in immunotherapy resistance. Dr. He, Dr. Bolotin, and Dr. Dai, a PGY3 Dermatology resident, received a Chicago Dermatologic Society grant for a translational research project investigating the role of RNA methylation in the pathophysiology of cutaneous squamous cell carcinomas. The Section of Dermatology expanded its clinical trials portfolio over this past year. Led by Dr. Bolotin, the Section is the only site in the Chicagoland area to host a pharmaceutical clinical trial of topical patidegib gel, a targeted medication for patients with Gorlin syndrome and multiple basal cell carcinomas. Pediatric dermatologists, Drs. Stein and Rosenblatt, are also carrying out two clinical trials – one testing ixekizumab, a biologic medication, in pediatric patients with psoriasis, and another study focused on evaluating impact of visible and chronic skin diseases on stigma and psychiatric issues in the pediatric population.

In FY19 Sarah Stein, MD completed her final year as director of the Dermatology Residency Program. During her seven year tenure Dr. Stein successfully navigated numerous changes to ACGME program requirements, pioneered significant changes to the residency curriculum to meet the needs and best interests of the residents, and tirelessly advocated for resident education. Adena Rosenblatt, MD succeeded Dr. Stein as program director in FY20. The residency program aims to continue to build on our achievements by providing a top notch, well-rounded dermatologic education as well as a collegial and transparent learning environment to our trainees. The Section's one-year fellowship program in Dermatopathology continues to be a sought after training program consistently filling the training slot with top-notch candidates.



FY20 Dermatology Chief Residents



Dr. Soltani with Dean Polonsky and donors Dr. and Mrs. Paik

### PROFESSORS:

Christopher R. Shea, MD  
Keyoumars Soltani, MD

### ASSOCIATE PROFESSORS:

Victoria Barbosa, MD, MPH, MBA  
Diana Bolotin, MD, PhD (Chief)  
Yu-Ying He, PhD  
Mark Hoffman, MD  
Sarah Stein, MD

### ASSISTANT PROFESSORS:

Oluwakemi Onajin, MD  
Adena Rosenblatt, MD, PhD

### CLINICAL ASSOCIATES:

Juliana Basko-Plluska, MD  
John Fox, MD  
Vivek Iyengar, MD  
Nicole Joy, MD  
Eduardo Moioili, MD  
Arlene Ruiz  
De Luzuriaga, MD, MPH, MBA

### SECTION ADMINISTRATOR:

Kristen Meredith

+ New FY20 Faculty

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Keyoumars Soltani, MD** – Named as the Allan L. Lorincz Professor in Dermatology
- **Diana Bolotin, MD, PhD** – Appointed Associate Editor for *Archives of Dermatological Research* and appointed co-chair of American Society for Dermatologic Surgery Research Work Group
- **Sarah Stein, MD** – Appointed Associate Editor of *Pediatric Dermatology*
- **Christopher R. Shea, MD** – Recognized by *Chicago magazine* (January 2019) as a Top Doctor
- **Oluwakemi Onajin, MD** – Awarded a mentorship for the 2019-2020 Medical Dermatology Society Mentorship Program

## DISCOVERIES AND INNOVATIONS:

- Identified the role of RNA methylation and its demethylase in melanoma tumorigenicity and resistance to anti-PD-1 immunotherapy (He, et al, *Nature Communications*, 2019)
- Published a quality-improvement paper demonstrating a novel modification for Mohs embedding that aids in early and complete margin assessment during the procedure (Napolitano, Kelley, Oldanie and Bolotin, *Dermatologic Surgery*, in press)
- Discovered a role for RNA methylation in melanoma tumor growth and response to PD-1 inhibitor therapy (Yang, Wei, Cui, Park, Shah, Deng., and He, *Nature Communications*, 2019)
- Determined that, independent from tumor thickness, an increased density of peritumoral FoxP3+ lymphocytes may positively impact survival in a subset of vulvar melanomas. Tumoral PDL1 expression correlated with tumoral as well as peritumoral CD8+ and FoxP3+ lymphocytes, supportive of an adaptive immune response (Chlopik, Shea et al, *Human Pathology*, 2018)
- Investigated how hydroxychloroquine can be considered as a treatment option for alopecia areata in children. (Yun, Silverberg, Stein, *Pediatric Dermatology*, 2018)



## SECTION OF EMERGENCY MEDICINE



Dr. Linda Druelinger

Under the leadership of Linda Druelinger, MD, the Section of Emergency Medicine continues to support and maintain the operation and management of the busy adult emergency department (ED) at the University of Chicago Medicine. Since the opening of the new, state-of-the-art adult ED in December 2017, there has been a remarkable increase in patient volume. This past year the number of patients presenting to the ED for care was 75,000, an increase in volume of 9.5% from last year. The Trauma Center, which opened in May 2018, has provided 3,000 patients with acute care.

One of the major accomplishments for the Section in FY19 was the development of an Opioid Overdose and Naloxone Distribution Program, spearheaded by Paul Quincy Moore, MD. This multidisciplinary effort, involving physicians, nursing, and pharmacy, represents one of many initiatives implemented by the Section to combat the effects of the opioid epidemic. The project involves identifying patients at risk of death due to opioid overdose and educating the patient and/or family members on the use of naloxone post discharge. Other clinical achievements include the development of a Region XI Triage and Mass Casualty Incident Policy for the Emergency Medicine Services (EMS) System, as well as the development of pre-hospital protocols for ambulance transport of severe stroke patients to comprehensive stroke centers. Also with leadership by Katie Tataris, MD, the Chicago EMS System in collaboration with Chicago Fire Department launched a pilot project to decrease ED transports and facilitate the appropriate care for mental health patients.

In FY19, three junior faculty were welcomed to the Section: Daniel Bickley, MD, Adriana Olson, MD and Nathan Olson, MD. Dr. Bickley focuses his efforts on ED operations as Assistant Medical

Director. Dr. Adriana Olson's work focuses on curriculum development, patient safety, and resident mentorship, and Dr. Nathan Olson is interested in medical education utilizing team-based in-situ simulations as well as how non-cognitive traits effect physician training and education.

In the research realm, the Section was awarded nearly \$6M in extramural funding in FY19, most noteworthy was a 5 year NIH P01 awarded to Nanduri Prabhakar, PhD to examine the mechanisms and consequences of the overactive sympathetic nervous system caused by chronic intermittent hypoxia and sleep apnea. Researchers Alfredo Garcia, PhD and Willard Sharp, MD, PhD continued their investigative efforts focused on the neurocognitive consequences of intermittent hypoxia, and pharmacological induced hypothermia as a novel therapy for improving survival following cardiac arrest, respectively. Aasim Padela, MD, PhD continued his research to improve American Muslim health outcomes and healthcare experiences. In clinical research David Beiser, MD was named as the site-PI for the Brain Oxygen Optimization in Severe TBI Phase-3 (BOOST-3) Neurotrauma Trial as part of the Strategies to Innovate Emergency Care Clinical Trials Network (SIREN). Through this net-

work, the Section began the process of developing 24/7 emergency clinical trial capabilities at UCM.

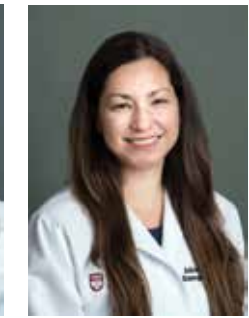
As one of the oldest emergency medicine training programs in the country, the Emergency Medicine Residency Program (Christine Babcock, MD – Director) continues to attract trainees from outstanding medical schools, many of whom are successful securing sought after fellowship positions after completing residency training. During the past year, the Section introduced several new training programs and successfully filled each slot, including an International Medical Education Fellowship, the first of its kind in the nation directed by Keegan Checkett, MD and an Administrative Fellowship under the direction of Thomas Spiegel, MD. The Section also received ACGME approval for an EMS Fellowship, the first training program of its type in the state of Illinois. Under the direction of Dr. Tataris, this one year intensive program provides training in all aspects of prehospital medicine including quality and research related to EMS, as well as tactical, wilderness and aeromedicine. Under the direction of Paul Kukulski, MD, a new elective in emergency medicine was made available to third year Pritzker medical students this past year.



FY20 Emergency  
Medicine Residents



Dr. Daniel Bickley



Dr. Adriana Olson



Dr. Nathan Olson

### PROFESSORS:

Linda Druelinger, MD (Chief)  
Ira Blumen, MD  
David Howes, MD  
Jayasri Nanduri, PhD  
Nanduri Prabhakar, PhD, D.Sc  
James Walter, MD

### ASSOCIATE PROFESSORS:

James Ahn, MD  
Christine Babcock, MD  
David Beiser, MS, MD  
Keme Carter, MD  
Teresita Hogan, MD  
Robert Mulliken, MD  
Aasim Padela, MD, MSc  
Ying-Jie Peng, MS, PhD\*

### ASSISTANT PROFESSORS:

Daniel Bickley, MD  
Keegan Checkett, MD  
Navneet Cheema, MD  
Alfredo Garcia, PhD  
Nadim Hafez, MD  
Paul Kukulski, MD\*  
P. Quincy Moore, MD  
Adriana Olson, MD  
Nathan Olson, MD  
Alejandro Palma, MD  
Abdullah Pratt, MD\*  
Willard Sharp, MD, PhD  
Thomas Spiegel, MD, MBA, MS  
Kimberly Stanford, MD  
Katie Tataris, MD, MPH

### CLINICAL ASSOCIATES:

Diane Chaney, MD  
David Harter, MD  
Julianne Kjolhede, MD

### MEDICAL EDUCATION FELLOW

Zayir Malik, MD\*  
Isabel Malone, MD\*

### EMS FELLOW

Hashim Zaidi, MD\*

### INTERNATIONAL MEDICAL EDUCATION FELLOW

Nicholas Ludmer, MD

### ADMINISTRATIVE FELLOW

Zachary Jarou, MD

### PART TIME FACULTY:

Andrew Bokarius, MD  
Thomas Fisher, MD  
Cai Glushak, MD  
Vishal Gupta, MD  
Kamaldeep Heyer, MD  
Murray Keene, MD  
Marshall Segal, MD  
Joshua Sherman, MD

### SECTION ADMINISTRATOR

Bradford Lane

\*Research faculty  
+ New FY20 faculty

## DISCOVERIES AND INNOVATIONS:

- Developed a clinical pathway to coordinate the care of heart failure patients that reduces that population's likelihood of admission without increasing ED disposition times (Spiegel, et al, *American Journal of Emergency Medicine*, 2018)
- Found that long-term intermittent hypoxia (LTIH) results in irreversible autonomic dysfunction as opposed to reversible changes caused by short term exposure to intermittent hypoxia (Nanduri, Peng, Prabhakar, et al., *Journal of Physiology*, 2018)
- Developed a clinical pathway to coordinate the care of heart failure patients that reduces that population's likelihood of admission without increasing ED disposition times (Spiegel, et al, *American Journal of Emergency Medicine*, 2018)
- Shown that irreversible changes by long-term intermittent hypoxia involve DNA hypermethylation of antioxidant enzymes (Nanduri, Peng, Prabhakar, et al., *Journal of Physiology*, 2018)
- Demonstrated that intermittent hypoxia acts through oxidative stress to dysregulate hippocampal adult neurogenesis. (Garcia, et al., *Journal of Neuroscience*, 2018)
- Found that heme-oxygenase-2 knockout mice exhibit obstructive and central sleep apnea (Peng, Prabhakar, et. al., *Advances in Experimental Medicine and Biology*, 2018)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- Christine Babcock, MD** – Recipient of the Emergency Medicine Residency Association Faculty Mentor of the Year Award
- Keme Carter, MD** – Recipient of the 2019 Pritzker School of Medicine (PSOM) Favorite Faculty Award and the Department of Medicine Clinical Teacher of the Year Award. Dr. Carter was also named as a Master in the PSOM Academy of Distinguished Medical Educator
- Paul Quincy Moore, MD** – Recipient of the 2019 Emergency Medicine Mentorship Award
- Alejandro Palma, MD** – Recipient of the 2019 Emergency Medicine Outstanding Clinical Teaching Award
- Adriana Olson, MD** – Recipient of the 2019 Janet D. Rowley Research Day Best Abstract (Health Services Research) Award and the 2018 American College of Emergency Physicians National Junior Faculty Teaching Award
- Aasim Padela, MD, PhD** – Recipient of the Outstanding Clinical Teaching Award and appointed to the Advisory Council- Equity, Diversity and Inclusion Team- Academy of Diversity and Inclusion in Emergency Medicine for the Society of Academic Emergency Medicine
- Alfredo Garcia, PhD** – Named as Chair of the Hypoxia Interest Group for the American Physiological Society and Councilor for The University of Chicago, Chicago Chapter of The Society for Neuroscience





Dr. Ronald Cohen

## SECTION OF ENDOCRINOLOGY, DIABETES & METABOLISM

Under the direction of Ronald Cohen, MD, the Section of Endocrinology, Diabetes & Metabolism (EDM) continues to be at the forefront for innovative diabetes research and unparalleled patient care and educational programs. The Section's most notable accomplishments in FY19 include the recruitment of two new faculty and a new high impact NIH U54 awarded to Louis Philipson, MD, PhD to develop a center for the identification and study of individuals with atypical diabetes mellitus.

In FY19, Antonio Bianco, MD, PhD and Michelle Lemelman, MD joined the Section. Dr. Bianco, professor of medicine, is an internationally recognized expert in the study of thyroid hormone action, particularly in the local control of thyroid hormone activation by deiodinase enzymes. He is Past President of the American Thyroid Association and a former recipient of the Van Meter Award from the American Thyroid Association, the Rosalind-Pitts-Rivers Medal from the British Thyroid Association, and the LATS Prize from the Latin American Thyroid Society. Dr. Lemelman, assistant professor of medicine, is a pediatric endocrinologist and educator, with expertise in pediatric thyroid disease and pediatric diabetes.

The Section's internationally recognized investigators continue to make important scientific contributions that lead to a better understanding of diabetes, thyroid disease, sleep and polycystic ovary disease. In FY19 Dr. Philipson was awarded a multi-institutional, 5 year NIH U54 totaling \$12.5M, to pursue the identification and study of new cases of rare/atypical forms of diabetes that may yield greater insight into the heterogeneity of more common forms of type 2 diabetes mellitus and reveal novel mechanistic pathways involved in the prevention and/or treatment of the disease. Other

noteworthy federal grants include the renewal of Dr. Bianco's R01 to further his investigations in thyroid-adrenergic synergism and adaptive thermogenesis and a new R01 for Manami Hara, PhD to study the heterogeneity of the human pancreas.

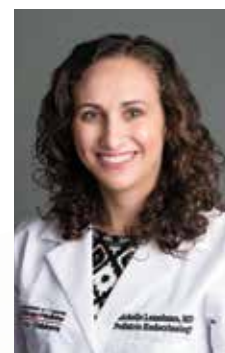
The Section's clinical and outreach programs were highlighted by several accomplishments and innovative initiatives in FY19. For the third time, the Comprehensive Hypertension Center, led by George Bakris, MD was awarded the American Heart Association's Comprehensive Hypertension Center Certification, the only AHA-accredited comprehensive hypertension center within a 300-mile radius of Chicago. In clinical initiatives, Susan Sam, MD developed a multidisciplinary pituitary and neuroendocrine clinic. Celeste Thomas, MD continued her ongoing collaborations with the Section of Gastroenterology on a multi-disciplinary clinic focusing on non-alcoholic fatty liver disease. The Thyroid Study Unit (Samuel Refetoff, MD – Director) continues to work on the identification and treatment of congenital thyroid diseases, in particular those that cannot be managed by simple hormone replacement.

One of the unique aspects of the Section is the fully integrated nature of the Adult and Pediatric train-

ing programs. With two NIH T32 grants to support training in pediatric endocrinology research and integrated clinical and basic endocrinology, there is no other such program in the United States. The Endocrinology T32 Training Program (Drs. Bell and Refetoff – PI's) completed its 45th year of training endocrinology researchers and a Pediatric Endocrinology T32 (Dr. Philipson – PI) continues to train pediatric endocrinologists in academic research. The Committee on Molecular Metabolism and Nutrition (Matthew Brady, PhD – Chair) successfully graduated two doctoral students.



Dr. Antonio Bianco



Dr. Michele Lemelman



Drs. Susan Sam and Everett Vokes



Dr. Louis Philipson –  
ADA Presidential Address

### DISCOVERIES AND INNOVATIONS:

- Demonstrated for the first time a transgenerational inheritance of an epigenetic effect (three generations) in males (Anselmo, Refetoff, Dumitrescu, et al., *Thyroid*, 2019)
- Developed national guidelines for the evaluation and treatment of hirsutism (Martin, Anderson, Chang, Ehrmann, Rosenfield, et al., *Journal of Clinical Endocrinology & Metabolism*, 2018)
- Reprogrammed human T cell function and specificity with non-viral genome targeting providing preclinical evidence that non-viral genome targeting can enable rapid and flexible experimental manipulation and therapeutic engineering of primary human immune cells (Roth, Puig-Saus, .... Greeley, Marson et al, *Nature*, 2018)
- Provided new insights into hypothyroidism in the brain (Jo, Bianco, et al., *Journal of Clinical Investigation*, 2019)
- Showed that human islets expressing HNF1A variant have defective  $\beta$  cell transcriptional regulatory networks (Haliyur, Tong ..., Philipson., Powers, et al., *Journal of Clinical Investigation*, 2018)

### ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Louis Philipson, MD, PhD** – Served as President for Medicine and Science, American Diabetes Association and delivered the Marble Lectureship at the Joslin Diabetes Center and Beth-Israel Deaconess at Harvard Medical School
- **George Bakris, MD** – Named as the top hypertension expert in the world by Expertscope
- **David Ehrmann, MD** – Named by *Chicago* magazine as a 2019 Top Doctor and presented the Walter Futterweit Lectureship at Icahn School of Medicine at Mt. Sinai Hospital
- **Antonio Bianco, MD, PhD** – Invited plenary speaker at the 13th Congresso Paulista de Endocrinologia (Sao Paulo, Brazil)
- **Eve Van Cauter, PhD** – Appointed as a member of the scientific advisory board of the German Research Center for Environmental Health for a 5-year period starting October 2018
- **Tamara Vokes, MD** – Selected by the Endocrine Society for the Women in Endocrinology 2019 collection in celebration of International Women's Day on March 8, 2019 for her work entitled "Recombinant Human Parathyroid Hormone Effect on Health-Related Quality of Life in Adults With Chronic Hypoparathyroidism", *Journal of Clinical Endocrinology & Metabolism*, February, 2018
- **Susan Sam, MD** – Recipient of the 2019 Department of Medicine Research Day Best Abstract Award (Translational Science) for her poster entitled "Impact of Obstructive Sleep Apnea and Sleep Duration on Glucose Tolerance and Beta-Cell Function in Adults with Prediabetes or Untreated Type 2 Diabetes"

#### PROFESSORS:

George Bakris, MD  
Graeme Bell, PhD  
Antonio Bianco, MD, PhD  
Ali Cinar, PhD\*  
David Ehrmann, MD  
Murray Favus, MD\*\*  
Raghu G. Mirmira, MD, PhD\*  
Louis Philipson, MD, PhD  
Kenneth Polonsky, MD  
Samuel Refetoff, MD\*\*  
Christopher Rhodes, PhD\*\*  
Eve Van Cauter, PhD\*\*  
Tamara Vokes, MD

#### ASSOCIATE PROFESSORS:

Ronald Cohen, MD (Chief)  
Matthew Brady, PhD  
Dianne Deplewski, MD  
Manami Hara, PhD\*  
Silvana Pannain, MD  
Ann Zmuda, DPM

#### ASSISTANT PROFESSORS:

Laura Dickens, MD\*  
Alexandra Dumitrescu, MD, PhD  
Siri Atima Greeley, MD, PhD  
Erin Hanlon, PhD\*  
Michele Lemelman, MD  
Rochelle Naylor, MD  
Katie O'Sullivan, MD  
Susan Sam, MD  
Celeste Thomas, MD  
Christine Yu, MD  
Meltem Zeytinoglu, MD

#### CLINICAL ASSOCIATES:

Farah Hasan, MD  
David Sarne, MD

#### SECTION ADMINISTRATOR:

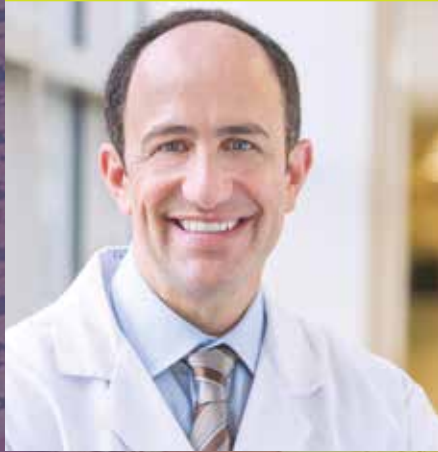
Ann M. Leu

\* Research track faculty  
\*\*Emeritus

+ New FY20 faculty



# SECTION OF GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION



Dr. David T. Rubin

With leadership from David T. Rubin, MD the Section of Gastroenterology, Hepatology and Nutrition (GI) earned national recognition for its clinical programs as #22 in the nation by *US News & World Report* (August 2019) and enjoyed continued success in its research and educational programs. In FY19, the major sectional accomplishments include expansion of the clinical programs and the receipt of several important grants as well as multiple discoveries that resulted in high impact publications in peer-reviewed journals, including a first author paper on the new national guidelines for ulcerative colitis.

In FY19 the Section continued to expand its clinical programs both on the University of Chicago Medicine (UCM) campus and at offsite locations in the southwest suburbs and north-west Indiana. Section physicians also continued to see patients in clinical sites in downtown Chicago, Merrillville, Schererville, Hinsdale, and Orland Park. This past year, the Section recorded over 1,500 visits at the Orland Park Center for Advanced Care, and over 1,200 visits at the 150 E Huron location in downtown Chicago. The Section also began performing endoscopic procedures at a 3rd location, 900 N Michigan Avenue Surgery Center, which has allowed GI physicians the ability to provide comprehensive care to the IBD patients who are seen at 150 E. Huron. The Section is in the planning phases to grow the inflammatory bowel disease (IBD) and obesity medicine programs in downtown Chicago in the coming years, and looks to increase other digestive diseases specialties after that.

In other clinical programs, the Liver Transplant Program (Michael Charlton, MD – Co-Director)

continues to flourish. In FY19, the first triple transplants of a heart, liver and kidney were performed at UCM on two patients. New patient volumes in the Metabolic and Fatty Liver Clinic and Liver Tumor Clinic (Anjana Pillai, MD- Director) also continued to grow significantly. The Center for Endoscopic Research and Therapeutics (Irving Waxman, MD – Director) has continued to thrive and provide new unique services. In FY19, Christopher Chapman, MD expanded endoscopic treatments for the obesity program, performing endoscopic suturing, and endoscopic balloon procedures for obesity management. The Inflammatory Bowel Disease Center (Russell Cohen, MD – Director) also saw volume increases particularly at Orland Park and Tinley Park facilities.

The Section was awarded several important grants and published multiple high impact publications during the past academic year. New federal R01s were awarded to Drs. Eugene Chang, Bana Jabri, Karen Kim, Sonia Kupfer, and Marc Bissonnette. Dr. Chang successfully renewed his NIH R01 studying the mutualistic relationship

between Hsp25/27 and gut microbes as a major and essential determinant of mucosal healing and microbial fitness following intestinal injury, and was awarded a new R01 to investigate the conceptual and mechanistic insights into the development of diet-induced obesity through disruption of hepatic circadian rhythms by the gut microbiome. Dr. Chang and Dr. Rubin also led a multi-institutional effort including Argonne, Marine Biological Laboratory and the Mayo Clinic, and recently received approval for a federal RC2 award, the Colon Cancer Moonshot Grant, and a novel collaboration with the Chinese University of Hong Kong representing a major new multi-national microbiome initiative. Dr. Jabri successfully renewed her NIH R01 related to the immunology of celiac disease and primary sclerosing cholangitis. Dr. Kim, Director of the Center for Asian Health Equity, was awarded a high impact \$6M, 5 year NIH UG3 grant to test implementation strategies to improve colon cancer screening and follow-up rates in populations where baseline rates remain low, as well as provide a robust knowledge base for the field of implementation science. Dr. Kupfer's new NIH R01 is focused on comparing inter-individual and inter-ethnic differences in colonic responses to vitamin D and aspirin and Dr. Bissonnette's research is focused on CXCR4, a novel target for colon cancer chemoprevention and was recently awarded a NIH R01.

In the educational realm the Section's training program (Gautham Reddy, MD –Program Director) had a very successful match of 5 new ACGME fellows including 3 Physician Scientist Development Program (PSDP) fellows who will be combining

## PROFESSORS:

David Rubin, MD (Chief)  
Eugene B. Chang, MD  
Michael Charlton, MD  
Russell Cohen, MD  
Ira Hanan, MD  
Bana Jabri, MD, PhD  
Karen Kim, MD  
Carol Semrad, MD  
Helen Te, MD  
Irving Waxman, MD  
Charles Winans, MD (emeritus)

## ASSOCIATE PROFESSORS:

Andrew Aronsohn, MD  
Marc Bissonnette, MD  
Robert Kavitt, MD  
Sonia Kupfer, MD  
Yanchun Li, PhD  
Anjana Pillai, MD  
Kapuluru Gautham Reddy, MD  
Uzma Siddiqui, MD

## ASSISTANT PROFESSORS:

Christopher Chapman, MD  
Sushila Dalal, MD

Murat Eren, PhD  
Edwin McDonald III, MD  
Dejan Micic, MD  
Sajan Najpal, MD\*  
Sonali Paul, MD  
Joel Pekow, MD  
Vijaya Rao, MD  
Atsushi Sakuraba, MD  
Neil Sengupta, MD  
Valerie Abadie, PhD\*

## INSTRUCTORS:

Thomas Lu, MD\*  
Vanessa Leone, PhD

## CLINICAL ASSOCIATES:

Ruben Khan, MD\*  
Bertram Rogers, MD

## PART TIME FACULTY:

Dionysios Antonopoulos, PhD  
Yunwei Wang, MD\*

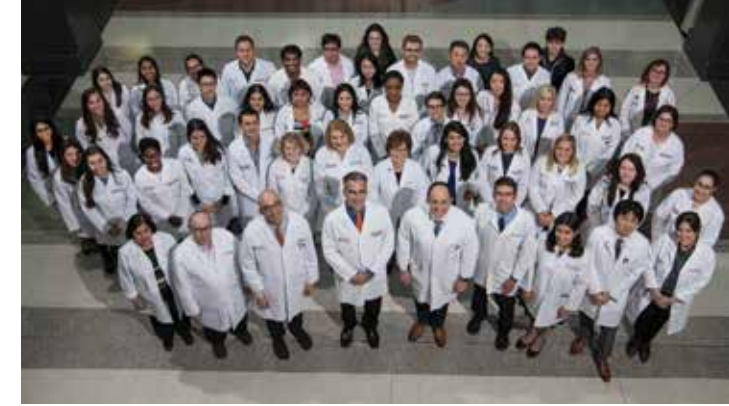
## SECTION ADMINISTRATOR:

Mark Mitchell

\*Research Track Faculty

\*New FY20 faculty

clinical GI training while receiving advanced basic and translational research training. In FY19, Dr. Kupfer was appointed as the Associate Director for the PSDP program and has been instrumental in carving a new pathway to optimize clinical and research training for PSDP fellows with the goal of research independence. Multiple changes have taken place to optimize training, including "block" time for didactics to protect fellows for educational pursuits. In addition, the Section implemented adjustments to the curriculum and rotations over the last 3 years in preparation for the next ACGME site visit in late 2019 that will allow the Section to continue to be the leader in developing academic gastroenterologists in the coming years. Additionally, the GI sub-specialty programs successfully recruited 5 advanced fellows (transplant hepatology, IBD, nutrition, interventional endoscopy) continuing the unique tradition of training niche experts in various aspects of GI. The Section hosted several CME events including the 'Women in GI Conference' directed by Drs. Kupfer, Sonali Paul, Anjana Pillai, Vijaya Rao, and Helen Te. The GI International Telehealth conferences in Liver and IBD also continued to grow.



IBD Center physicians and staff



GI women faculty hosted an inaugural symposium, Women in Digestive Diseases: At the Forefront on March 9, 2019.

## DISCOVERIES AND INNOVATIONS:

- Determined that chronic inflammation permanently reshapes tissue-resident immunity in celiac disease (Jabri, Semrad, Kupfer, Barreiro, et al., *Cell*, 2019)
- Described an approach that makes use of high-throughput sequencing of tRNA transcripts to gain insights into physiological states of naturally occurring microbial communities (Eren, Chang, et al., *Nature Communications*, 2018)
- Developed new clinical guidelines for patients with ulcerative colitis (Rubin, et al., *American Journal of Gastroenterology*, 2019)
- Showed that m6A RNA methylation is important for circadian regulation of downstream genes and lipid metabolism, impacting metabolic outcomes (Leone, Chang, et al., *Cell Reports*, 2018)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Eugene Chang, MD** – Named as a "Hero of Medicine" by Halo, an online platform that connects scientists from academia with industry partners for research collaborations
- **Sonia Kupfer, MD** – Winner of the 2019 American Gastroenterological Association's Young Investigator Award (Clinical Science)
- **Helen Te, MD** – Recipient of the Biological Sciences Division's Faculty Physician Peer Role Model Award
- **David T. Rubin, MD** – Named as Chair of the National Crohn's and Colitis Congress and recipient of the Pritzker School of Medicine's John D. Arnold, MD Mentorship Award for sustained excellence in mentoring a Pritzker medical student
- **Dejan Micic, MD** – Named as a Junior Faculty Scholar by Bucksbaum Institute for Clinical Excellence
- **Carol Semrad, MD, Helen Te, MD, Irving Waxman, MD** – Named as Top Doctors by *Chicago* magazine (January 2019)



# SECTION OF GENERAL INTERNAL MEDICINE



Dr. Deborah Burnet

Under the leadership of Deborah Burnet, MD, MAPP, the Section of General Internal Medicine (GIM) comprises highly talented faculty dedicated to providing exceptional clinical care, teaching and leading our educational programs, and conducting innovative, real-world research addressing health disparities. The Section is home to several outstanding multidisciplinary academic centers and programs including the MacLean Center for Clinical Medical Ethics, Bucksbaum Institute for Clinical Excellence, Chicago Center for Diabetes Translation Research, and the Center for Chronic Disease Research and Policy.

In FY19, GIM faculty were recognized nationally for their outstanding academic contributions: **Marshall Chin, MD, MPH**, was elected to the Association of American Physicians, reflecting his extraordinary contributions towards reducing health disparities nation-wide, with a focus on diabetes. **Monica Vela, MD**, was selected by the National Latino Medical Students Association as the Phil DeChavez Latino Medical Society Mentor of the Year and also honored with the University of Chicago Diversity Leadership Award. **Vineet Arora, MD, MAPP**, was named a Josiah Macy Foundation Faculty Scholar to advance care and learning through creation of inter-professional clinical learning environments. Several GIM faculty assumed new institutional leadership roles: Halina

Brukner, MD, was appointed as Dean for Medical Education for the Pritzker School of Medicine. Dr. Arora assumed the role as Associate Chief Medical Officer for the Clinical Learning Environment; Adam Cifu, MD, was named as Associate Dean for Medical School Academics, and Amber Pincavage, MD, became Internal Medicine Clerkship Director.

In FY19 GIM welcomed 3 new faculty. Susan Nasr, MD, assistant professor of medicine, treats primary care patients and teaches about healthcare for the underserved. Alison Crawford, MD, MS, assistant professor of medicine and a trained chef, teaches students and patients about healthy nutrition to prevent chronic disease. Craig Umscheid, MD, MS, associate professor of medicine, was named Chief Quality and Innovation Officer and UCM Vice President for Healthcare Delivery Science.

Under the direction of Lisa Vinci, MD, MS, the Primary Care Group (PCG) cared for nearly 30,000 patients, providing approximately 57,000 visits during FY19, and GIM is actively supporting the expansion of the UCM primary care network throughout Chicago's Southside. PCG's Integrated Behavioral Medicine Unit, led by Neda Laiteerapong, MD, MS, supports primary care patients working on healthy behavior change. Jennifer

Rusiecki, MD, MS, has expanded PCG capability for comprehensive women's health care. Drs. Mim Ari and George Weyer have developed comprehensive new services to address opioid use disorder in PCG and beyond, through staff education, faculty development, resident training, and use of the Project ECHO telehealth platform to teach best practices to primary care providers throughout the Midwest.

The Section's research portfolio totaled approximately \$7.2M in FY19 and includes the successful acquisition of several high impact awards: Elbert Huang, MD, MPH, received funding from Health Resources and Services Administration to examine the quality and costs of care provided by community health centers. Dr. Laiteerapong was awarded an AHRQ U18 to integrate novel screening and monitoring for depression symptoms through the electronic health record. She also successfully secured NIH R01 funding to develop a multi-ethnic simulation model of diabetes outcomes and forecast effects of efforts to reduce disparities. Dr. Chin received a large award from the Robert Wood Johnson Foundation to advance equity through aligning Medicaid managed care plans and providers across states.

GIM faculty continue to lead education efforts in our Internal Medicine residency and the Pritzker



Dr. Alison Crawford



Dr. Susan Nasr



Dr. Kamala Cotts the 2019 Diversity Awardee with Dr. John McConville

## PROFESSORS:

Deborah Burnet, MD, MAPP (Chief)  
Diane Altkorn, MD  
Vineet Arora, MD, MAPP  
Halina Brukner, MD  
Marshall Chin, MD, MPH  
Adam Cifu, MD  
Andrew Davis, MD, MPH  
John Flynn, MD, MBA, MEd  
Elbert Huang, MD, MPH  
Mindy Schwartz, MD  
Mark Siegler, MD  
Scott Stern, MD  
James Woodruff, MD  
Monica Vela, MD  
Lisa Vinci, MD, MS

## ASSOCIATE

### PROFESSORS:

Arshiya Baig, MD, MPH  
Dionne Blackman, MD  
Kamala Cotts, MD  
Rajlakshmi Krishnamurthy, MD  
Neda Laiteerapong, MD, MSCP  
David Liebovitz, MD  
Doriane Miller, MD  
Julie Oyler, MD  
Monica Peek, MD, MPH, MS  
Amber Pincavage, MD  
Rita Rossi-Foulkes, MD, MS  
Sachin Shah, MD  
Craig Umscheid, MD, MSCE

## ASSISTANT

### PROFESSORS:

Nabil Abou Baker, MD  
Jason Alexander, MD  
Irsk Anderson, MD  
Mim Ari, MD  
Alison Crawford, MD, MS  
Susan Nasr, MD, MA  
Valerie Press, MD, MPH  
Jennifer Rusiecki, MD, MS  
Milda Saunders, MD, MPH  
Todd Stern, MD  
Anna Volerman Beaser, MD  
George Weyer, MD

## INSTRUCTOR:

Elizabeth Tung, MD, MS

## CLINICAL

### ASSOCIATES:

Joseph Asbury, MD  
Marius Commodore, MD  
Gomez Charleston, MD  
Lina Khamis, MD, MBA  
Ashley Martin, MD  
Sandra Naaman, MD, PhD

## SECTION

### ADMINISTRATOR:

Cindy Kitching

School of Medicine, teaching over 130 residents and serving in a variety of leadership roles. Under leadership of David Liebovitz, MD, the Section successfully launched the new Medical Informatics Fellowship in FY19, including a Master of Science in Biomedical Informatics. Internal Medicine residency graduates, Michael Cui, MD, and Sarah Feenstra, MD, are the first two fellows.

Under direction of Drs. Huang and Laiteerapong, the Center for Chronic Disease Research and Policy held its 6th annual symposium, focused on "Advancing Population Health through Medical Education, Health Policy, and System Change."

## DISCOVERIES AND INNOVATIONS:

- Discovered that elevated glycemic levels in the first year after diabetes diagnosis were associated with worse long term health outcomes (Laiteerapong, Huang, et al., *Diabetes Care*, 2019). Dr. Laiteerapong also wrote the editorial on: "Lack of Glycemic Legacy Effects in the Veterans Affairs Diabetes Trial" (*New England Journal of Medicine*, 2019)
- Demonstrated use of electronic health record nudges and empowering inter-professional teams, could lead to 44% improvement in nighttime sleep disruptions and improved hospital patient experience (Arora, et al., *Journal of Hospital Medicine*, 2019)
- Argued that clinical medical ethics is a discipline distinct from bioethics which addresses key issues such as truth-telling, informed consent, confidentiality, surrogate decision making, and end-of-life care (Siegler, et al., *Journal of Clinical Ethics*, 2019)
- Reported on how 'photo-voice', can support diabetes self-care among Latino adults (Baig, Chin, Burnet, et al., *Translational Behavioral Medicine*, 2019)
- Discussed how to ensure fairness in big data machine learning algorithms to advance health equity (Chin, et al., *Annals of Internal Medicine*, 2018)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Valerie Press, MD, MPH** – Recipient of the Biological Sciences Division (BSD) Distinguished Leader in Program Innovation Award; Behavioral Science and Health Services Research Early Career Achievement Award; and the American Thoracic Society's Early Career Achievement Award
- **Rita Rossi-Foulkes, MD, MS** – Recipient of the BSD Distinguished Leader in Community Service and Advocacy Award; Appointed as a Bucksbaum Institute for Clinical Excellence Senior Scholar
- **Vineet Arora, MD, MAPP** – Recipient of the BSD Francis Straus Mentorship Award
- **Adam Cifu, MD** – Recipient of the Department of Medicine (DOM) Preclinical Teacher of the Year Award
- **Kamala Cotts, MD** – Recipient of the DOM Diversity Award and Resident Teaching Award
- **Todd Stern, MD** – Recipient of the DOM Resident Teaching Award
- **Neda Laiteerapong, MD, MS** – Recipient of the DOM Leif B Sorensen Faculty Research Award; Won the Cost-Effectiveness Analysis Paper of the Year Award from the Tufts Center for Evaluation of Value
- **Elbert Huang, MD, MPH** – Recipient of the DOM Arthur Rubenstein Mentorship Award; the Midwest Society of General Internal Medicine (SGIM) Leadership Award; Appointed as a Bucksbaum Institute for Clinical Excellence Senior Scholar
- **Jason Alexander, MD** – Named as 2019 Alpha Omega Alpha Faculty Honoree
- **Milda Saunders, MD, MPH** – Recipient of the Midwest SGIM Community Service Award
- **Jennifer Rusiecki, MD, MS** – Recipient of the Midwest SGIM Clinician Educator Award
- **Monica Peek, MD, MS** – Recipient of the Schweitzer Leadership Award
- **Amber Pincavage, MD** – Recipient of the Clerkship Directors' of Internal Medicine Griffith Educational Research and Scholarship Award
- **Elizabeth Tung, MD, MS** – Recipient of the SGIM Hamolsky Research Award



## SECTION OF GENETIC MEDICINE



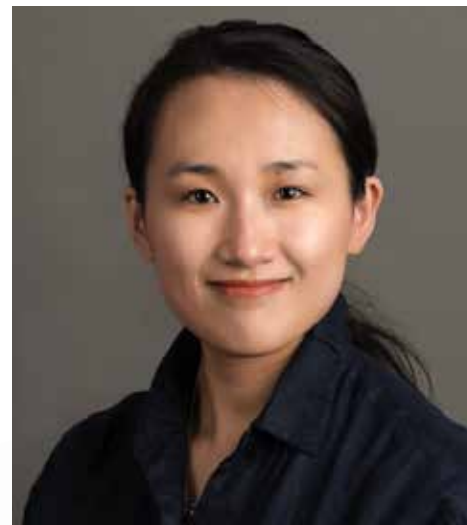
Dr. Yoav Gilad

Under the leadership of Yoav Gilad, PhD, the Section of Genetic Medicine demonstrated overwhelming research success in the past year. Remarkably nearly every member of the Section's faculty is supported by extramural funding for their innovative translational genetic research. Noteworthy was the award of the prestigious Sloan Fellowship to Mengjie Chen, PhD, which is given to early-career scientists and scholars whose achievements and potential place them among the next generation of scientific leaders.

Joining the Section of Genetic Medicine in FY19 was Xuanyao Liu, PhD, assistant professor of medicine. Dr. Liu's lab focuses on developing statistical methods for analyzing multi-omics data, in order to understand the impact of genetic variation on gene regulation and complex traits. Areas of interest include detecting trans gene regulation, building gene regulatory networks, disease gene mapping and predicting polygenic risk scores.

In FY19, the Section's research portfolio totaled over \$6.0M with the addition of many new awards. Dr. Gilad was the recipient of a NIH R35 to elucidate the genomic mechanisms that control spatially and temporally dynamic gene expression programs within and between species. Anindita Basu, PhD was awarded a NIH R21 to build droplet microfluidic and molecular biology techniques to study host-pathogen interaction in controlled

microenvironment using imaging and single-cell genomics. Yang Li, PhD received an NIH R01 investigating the co-transcriptional impact of genetic variation on gene regulation and disease. With funding through multiple new federal subawards, Hae Kyung Im, PhD continued her work on utilizing quantitative and computational methods to uncover hidden patterns in data. In early FY20, Dr. Gilad and Dr. Barreiro were awarded NIH R01's to develop IPSC's for comparative genomics in primates and to characterize the impact of *Yersinia pestis* to the phenotypic evolution of the human immune system, respectively. Dr. Basu also received a three year \$3M award from the Hemsley Trust to create a human gut cell atlas of the ileum and proximal colon in healthy subjects and patients of Ileal Colonic Crohn's disease to identify cell type-, disease- and stage- specific markers that will allow insights into the molecular mechanisms of the disease.



Dr. Xuanyao Liu

### PROFESSORS:

Yoav Gilad, PhD (Chief)  
Dan Nicolae, PhD

Hae Kyung Im, PhD  
Yang Li, PhD

### ASSOCIATE PROFESSOR:

Luis Barreiro, PhD

Xuanyao Liu, PhD  
Joshua Weinstein, PhD\*

### ASSISTANT PROFESSORS:

Anindita Basu, PhD  
Andrew Dahl, PhD\*  
Mengjie Chen, PhD

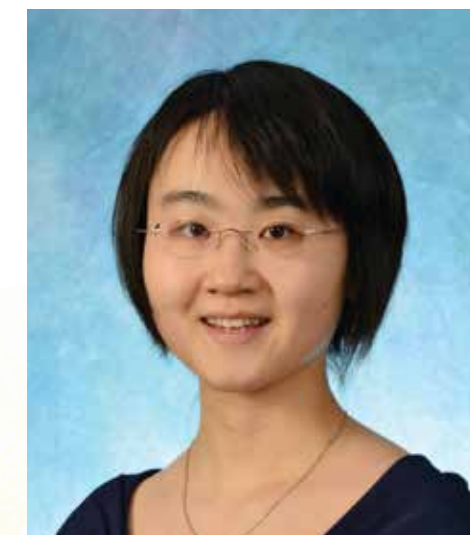
### SECTION ADMINISTRATOR:

Ann Leu

+ New FY20 faculty

### DISCOVERIES AND INNOVATIONS:

- Showed that gene activation precedes DNA demethylation in response to infection in human dendritic cells (Barreiro, et al., *Proceedings of the National Academy of Science*, 2019)
- Mapped expression quantitative trait loci (eQTLs) throughout differentiation to elucidate the dynamics of genetic effects on cell type-specific gene expression (Gilad, et al., *Science*, 2019)
- Conducted genome wide and transcriptome wide studies that showed shared and distinct genetic risk factors for childhood-onset and adult-onset asthma (Im, Schoettler, Nicolae, et al., *Lancet Respiratory Medicine*, 2019)



Dr. Mengjie Chen



Dr. Anindita Basu



Dr. Luis Barreiro



# SECTION OF GERIATRICS & PALLIATIVE MEDICINE



Dr. Stacie Levine

Under the direction of Stacie Levine, MD, the Section of Geriatrics & Palliative Medicine (GPM) is dedicated to enhancing the health of older adults and patients with serious illness through its outstanding clinical care, innovative research and excellent training programs. To achieve these goals, GPM faculty developed several innovative initiatives within its clinical, research and educational programs in FY19.

The inpatient and ambulatory oncology palliative medicine programs continue to grow steadily under the direction of Monica Malec, MD who is leading the first integrated mesothelioma program in palliative medicine in the United States. Sandy Tun, MD is collaborating with surgical oncology by integrating palliative medicine services into the care plan for persons undergoing evaluation for hyperthermic intraperitoneal chemotherapy. The Cardiac Palliative Service (Charles Rhee, MD- Director) has seen growth as it provides support to patients with advanced heart failure, including patients with left ventricular assist devices. Within the outpatient Geriatrics programs, the nationally recognized Successful Aging and Frailty Evaluation (SAFE) Clinic (Katherine Thompson, MD and Megan Huisingsh-Scheetz, MD, MPH - Co-Directors) continues to provide comprehensive geriatric assessment and frailty evaluations for vulnerable older patients as well as serve as a platform for research and teaching efforts. Michelle Martinchek, MD continues to lead collaborative initiatives between geriatrics, nephrology and transplant surgery by performing comprehensive geriatric assessments on older adults under evaluation for kidney transplant. The Specialized Oncology Care & Research in the Elderly (SOCARE) clinic (Selina Chow, MD and James Wallace, MD - Co-Directors) remains an integral centerpiece to geriatric oncologic care in

Chicago. A new initiative in FY19 was the creation of the pharmacy-led Hypertension Management Clinic (Tia Kostas, MD - Medical Director), in collaboration with William Madden, Pharm D.

Research efforts by GPM faculty and staff are supported by a variety of external sources and include investigations that range from important geriatrics syndromes to ethics and end of life care. Dr. Huisingsh-Scheetz continues to study the relationship between clinical frailty markers and wearable, research-grade, activity sensors (accelerometers) and has applied new methods to analyzing continuous data using nationally-representative datasets including the National Social Life, Health and Aging Study and the National Health and Nutrition Examination Survey. Given her accelerometry, frailty, and technology expertise, she has been invited to collaborate on numerous projects in other departments and sections (Thoracic Surgery, ENT, Sociology, NORC, Endocrinology, Pulmonary), and she was recently named the Associate Director of Aging Research in GPM. Dr. Thompson serves as the principal investigator of a HRSA-funded Geriatric Workforce Enhancement Program which created the South Side Healthy Aging Resource Experts (SHARE) Network and successfully secured renewal funding (\$3.5 million over 5 years) in FY19. The SHARE Network aims to improve care and outcomes of older adults by

integrating geriatrics with primary care, as well as maximizing patient and family engagement, on the South Side of Chicago. SHARE utilizes technology from Project ECHO to provide instruction in geriatrics and palliative medicine principles to community-based clinicians in FQHCs and other clinics and skilled nursing facilities in the post-acute care network. In FY19, Dr. Thompson led a conference on the University of Chicago campus that brought together other ECHO-Geriatrics sites from the United States and Canada. As part of the SHARE initiative, the Dementia Resource Champions, led by Shellie Williams, MD, was established to train faith leaders on Chicago's Southside as educators in the faith communities and to establish dementia support groups in their churches. This pilot project has resulted in the development of 2 new caregiver support groups on the Chicago South Side with 5 new locations currently undergoing the training. Also noteworthy in FY19 was the establishment of research collaborations for junior faculty through the Carol and George Abramson Pilot Awards for Aging and Longevity. As result, several faculty are conducting pilot projects through this mechanism: Dr. Martinchek is studying the effects of high intensity walking in older adults in the pre-operative period; Dr. Huisingsh-Scheetz is piloting a technology-based exercise and social engagement program (ENGAGE) utilizing smart voice in older adults and their caregivers; Lauren Gleason, MD

## PROFESSOR:

Stacie Levine, MD - Chief

## ASSOCIATE

### PROFESSORS:

Daniel Brauner, MD

Monica Malec, MD

Katherine Thompson, MD, MA

## ASSISTANT

### PROFESSORS:

Lauren Gleason, MD, MPH

Megan Huisingsh-Scheetz, MD, MPH

Tia Kostas, MD

Michelle Martinchek, MD

Charles Rhee, MD

Sandy Tun, MD

Shellie Williams, MD

## CLINICAL

### ASSOCIATES:

Selina Chow, MD

## SECONDARY

### APPOINTMENTS:

Elbert Huang, MD, MPH

Stacy Lindau, MD, MPH

Tamara Konetzka, PhD

Teresita Hogan, MD

## SECTION

### ADMINISTRATOR

Bradford Lane



Dr. Lauren Gleason with Dr. Vokes



Dr. Megan Huisingsh-Scheetz with Dr. Bana Jabri

## DISCOVERIES AND INNOVATIONS:

(with Teresita Hogan, MD) is evaluating older adults who present to the ER after a fall with objective measures of function and timely physical therapy evaluations using the Falling Older Adults Management (FOAM) protocol. In other funding, Dr. Malec received a Mesothelioma Research Pilot Award to study the association of symptoms, quality of life, and physical performance status in patients with malignant pleural mesothelioma.

Within the Section's educational programs, the Hospice and Palliative Medicine Fellowship (Charles Rhee, MD- Program Director) and Geriatric Medicine Fellowship (Katherine Thompson, MD - Program Director) continue to attract excellent candidates from across the country. Dr. Williams continues to direct the Geriatrics and Aging through Transitional Environments (GATE) Program for medical students. With grant support from the Coleman Foundation, and in partnership with other academic medical centers in Chicago, Dr. Levine created an immersion course in palliative medicine for advanced practice nurses and physician assistants and a longitudinal training program in primary palliative medicine skills for physicians, nurses, chaplains, and social workers. Both courses include communication training led by Vital-Talk trained faculty Drs. Williams and Tun. The Section also established an Aging Crossroads lecture series during Section Grand Rounds that features visiting speakers who participate in aging research within and outside the BSD.

- Determined that unconscious bias related to physicians' gender is not associated with differential use of information in clinical vignettes (Thompson, Huisingsh-Scheetz, et al, *Annals of Thoracic Surgery*, 2018)
- Developed an innovative model using telementoring to provide geriatrics education for nurses and social workers at skilled nursing facilities. (Gleason, Thompson, Martinchek et al., *Geriatric Nursing*, 2019)

- Found that an interprofessional medication management module is an effective way to improve medical and pharmacy students' attitudes about interprofessional collaboration and confidence in medication management (Kostas, Levine, Thompson, et al., *Journal of Interprofessional Care*, 2018)
- Showed that Extension for Community Healthcare Outcomes (ECHO) offers a novel strategy for improving community HCPs' geriatrics self-efficacy and frequency of geriatrics-centered practice behaviors. (Thompson, Kostas, Levine, et al., *Gerontology & Geriatrics Education*, 2019)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Stacie Levine, MD** - Named as a *Chicago Magazine* Top Doctor
- **Daniel Brauner, MD** - Appointed as a Bucksbaum Institute for Clinical Excellence Senior Faculty Scholar
- **Megan Huisingsh-Scheetz, MD** - Recipient of the 2019 Department of Medicine Leif B. Sorensen Faculty Research Award and served as a symposium speaker at the 2019 Annual International Conference on Frailty and Sarcopenia Research Meeting. Miami Beach, FL

- **Lauren Gleason, MD** - Recipient of the 2019 Best Abstract Award (Clinical Research) at the Department of Medicine Research Day and accepted into the MERITS Faculty Scholars Program
- **Sandy Tun, MD** - Graduate of the MERITS Faculty Scholars Program
- **Charles Rhee, MD** - Recipient of the Hearst Scholarship from the American Academy of Hospice and Palliative Medicine and accepted into the MERITS Faculty Scholars Program



## SECTION OF HEMATOLOGY & ONCOLOGY



Dr. Sonali Smith

In April 2019 Sonali Smith, MD, Elwood V. Jensen Professor, was named as Interim Chief of the Section of Hematology/Oncology. Dr. Smith, Director of the Lymphoma Program, is an internationally recognized leader in lymphoma clinical care, education and clinical research. Dr. Smith serves in a number of leadership positions with national and international visibility. She is Vice-Chair of the Southwest Oncology Group (SWOG) Lymphoma Committee, was elected as a Fellow of the American Society of Oncology (ASCO) in 2019, is Chair-Elect of the ASCO Cancer Communications Committee, member of the National Cancer Institute's Lymphoma Steering Committee, and elected as chair of the Scientific Advisory Board for the Lymphoma Research Foundation She has chaired and organized the International John Ultmann Chicago Lymphoma Symposium, now in its 17th year. Dr. Smith succeeds Walter Stadler, MD who was appointed as Dean for Clinical Research for the Biological Sciences Division. In his new role, Dr. Stadler oversees the central infrastructure for clinical trials and clinical research.

In FY19 the Section welcomed four new assistant professors, Christine Bestvina, MD, Angela Lager, PhD, Evgeny Izumchenko, PhD, Randy Sweis, MD, as well as two Pathway to Independence Instructors, Michael Drazer, MD and James Godfrey, MD, to the faculty. Dr. Bestvina's interests center on thoracic oncology, and include developmental therapeutics, clinical trial design and the financial ramifications of cancer care while Dr. Lager's interests are focused on using clinical cytogenetic and molecular genetic modalities for the investigation and discovery of neoplasm-associated genetic abnormalities. Dr. Izumchenko's investigations are directed at understanding the complex interplay between the genetic and epigenetic alterations in carcinogenesis and disease progression. Dr. Sweis is working to identify and circumvent mechanisms of resistance to cancer immunotherapies. Dr. Drazer's research utilizes techniques at the interface of human genetics, molecular biology, and genomics to study hereditary cancer syndromes while Dr. Godfrey's interests are focused on the identification of predictive biomarkers and translational development of novel immunotherapeutic approaches for the treatment of lymphoid malignancies.



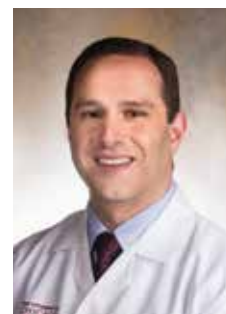
Dr. Christine Bestvina



Dr. Evgeny Izumchenko



Dr. Angela Lager



Dr. Randy Sweis



Dr. Michael Drazer



Dr. James Godfrey

Within the clinical programs, the Section has continued strong presence, innovative patient care, and expansion to network sites. The Section was once again recognized by *USNWR* as one of the top cancer programs in the nation (August 2019) and over a dozen faculty were named as "Top Cancer Doctors" by *Chicago* magazine (January 2019). Noteworthy in FY19 was the establishment of the first commercial CAR-T program in the state of Illinois, which leads the region in both research and clinical delivery of cellular therapy. Other initiatives include opening of the Oncology Rapid Assessment Clinic (ORAC) in March 2019 under the direction of Dr. Blase Polite, successfully preventing cancer patients from waiting in the emergency department. The Section was also the first in the country to launch a peptide receptor radionuclide therapy program (PRRT) for neuroendocrine tumors under the direction of Andy Liao, MD. Russell Szmulewitz, MD and Dr. Stadler have partnered with the Department of Surgery to create a multi-disciplinary High Risk and Advanced Prostate Cancer Clinic. In network expansion efforts, the first multidisciplinary thoracic oncology clinic was created in partnership with thoracic surgery at the Orland Park outpatient facility to increase access to clinical trials in the community.

The Section maintains a very strong and successful program in basic, translational and clinical research. In FY19 section faculty were awarded approximately \$23M in total costs grant funding coupled with an additional \$26M in clinical trial earnings. New grants include a NIH R01 to Peter O'Donnell MD to implement point-of-care pharmacogenomic decision support in perioperative care and a NIH P20 SPORE planning grant awarded to Dr. Olopade with the goal to reduce global disparities in breast cancer outcomes. New awards in the area of cancer immunology and immunotherapy include a NIH K08 awarded to Dr. Sweis to elucidate immunotherapy resistance mechanisms in non-T cell-inflamed bladder cancer and a V Foundation Translational Award grant and a LLS Translational Research Program grant to Justin Kline, MD focused on PD-L1 gene amplifications and the "T cell inflamed" microenvironment in DLBCL. The Section continued to expand its clinical trial activity, accruing 938 patients into therapeutic trials.

Under the direction of Kenneth Cohen, MD and Olwen Hahn, MD the Section continues to run a highly successful fellowship program with 7 current fellows from the highest ranked residency training programs.

### PROFESSORS:

Sonali M. Smith, MD (Interim Chief)  
Michael Bishop, MD  
Christopher K. Daugherty, MD  
M. Eileen Dolan, PhD  
Gini F. Fleming, MD  
Thomas F. Gajewski, MD, PhD  
Lucy A. Godley, MD, PhD  
Harvey M. Golomb, MD  
Philip Hoffman, MD  
Andrzej Jakubowiak, MD, PhD  
Hedy L. Kindler, MD  
Richard A. Larson, MD  
Michelle M. Le Beau, PhD  
Mark Lingen, DDS, PhD  
Olufunmilayo Olopade, MD  
Jyoti Patel, MD  
Mark J. Ratain, MD  
Walter Stadler, MD

Wendy Stock, MD  
Everett Vokes, MD  
Amittha Wickrema, PhD

### ASSOCIATE PROFESSORS:

Andrew Artz, MD  
Daniel Catenacci, MD  
Kenneth Cohen, MD  
Olwen Hahn, MD  
Justin Kline, MD  
Rita Nanda, MD  
Olatoyosi M. Odenike, MD  
Peter O'Donnell, MD  
Blase N. Polite, MD, MPP  
Angela Stoddart, PhD  
Russell Szmulewitz, MD  
Michael J. Thirman, MD

### ASSISTANT PROFESSORS:

Christine Bestvina, MD  
Evgeny Izumchenko, PhD  
Jagoda Jasielc, MD  
Satyajit Kosuri, MD  
Angela Lager, MD  
Chih-Yi (Andy) Liao, MD  
Hongtao Liu, MD, PhD  
Akash Patnaik, MD  
Alexander Pearson, MD, PhD  
Peter Riedell, MD  
Ari Rosenberg, MD  
Randy Sweis, MD  
Yonglan Zheng, PhD

### INSTRUCTORS:

Abiola Ibraheem, MD  
Michael Drazer, MD  
James Godfrey, MD  
Joseph Wynne, MD, PhD

### CLINICAL ASSOCIATES:

Andrea Amico, MD  
Simona Chivu, MD  
Mark Kozloff, MD  
Sunila Narula, MD  
Anu Neerukonda, MD  
Murtuza Rampurwala, MD  
Shayan Rayani, MD  
Grace Suh, MD  
Samir Undevia, MD  
James Wallace, MD

### SECTION ADMINISTRATOR

Jerry Schissler

\*Research track faculty

\*New FY20 faculty

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Olufunmilayo Olopade, MD** – Selected as the recipient of the Order of Lincoln Award, the State of Illinois' highest honor
- **Michelle LeBeau, PhD** – Elected to the American Cancer Society's Board of Directors and appointed to the Board of Scientific Advisors of the National Cancer Institute
- **Hedy Kindler, MD** – Appointed as Associate Vice Chair for Clinical Research for the Department of Medicine
- **Richard Larson, MD** – Awarded the Henry M. Stratton Medal from the American Society of Hematology.
- **Lucy Godley, MD, PhD** – Elected to the Council of University Senate; Recipient of the Pamela B. Katten Memorial Leukemia Research Foundation Researcher of the Year Award
- **Blase Polite, MD** – Appointed to the ASCO Board of Directors
- **Peter O'Donnell** – Selected by the graduating Pritzker Class of 2019 for the Basic Science Teaching Award and Favorite Faculty Award
- **Philip Hoffman, MD and Wendy Stock, MD** – Recipients of the Medical Resident Teaching Award by the graduating internal medicine residency class of 2019

## DISCOVERIES AND INNOVATIONS:

- Found that macrophage checkpoint inhibitor 5F9 combined with rituximab showed promising activity in patients with aggressive and indolent lymphoma (Smith, Kline, et al, *New England Journal of Medicine*, 2018)
- Demonstrated that progression free survival was longer with maintenance olaparib than with placebo in patients with a germline BRCA mutation and metastatic pancreatic cancer (Kindler, et al., *New England Journal of Medicine*, 2019).
- Provided new insights into the treatment of myeloproliferative disorder and myelodysplastic syndromes (Wickrema, et al, *Cancer Discovery*, 2019)
- Found that deep learning can predict microsatellite instability directly from histology in gastrointestinal cancer (Pearson, et al, *Nature*)



## SECTION OF HOSPITAL MEDICINE



Dr. David Meltzer

With leadership by David Meltzer, MD, PhD, the Section of Hospital Medicine continues to be recognized for its innovative patient care, research and educational programs. Section faculty care for some of the most medically complex patients admitted to the University of Chicago Medicine (UCM). In FY19, the Section of Hospital Medicine grew their clinical footprint covering over 130 patients in UCM per day (representing over 33% of UCM patients), developed 5 additional clinical service leaders, and led efforts towards Mitchell Hospital redesign to allow for better geographic concentration of patients and more effective and efficient multidisciplinary care. To meet this growing need, over 25 new hospitalists and hospitalist scholars were recruited in FY19 who are being welcomed to the Section in FY20.

Also noteworthy was the successful launch of the second phase of the Robert Wood Johnson Foundation (RWJF) funded Comprehensive Care, Community and Culture Program (C4P) study, which strengthens the work of the Comprehensive Care Physician (CCP) Program, mobilizing new resources to screen for patients' medical and social needs and to support and activate patients to address those needs. In addition, the C4P AmeriCorps program funded by the Illinois Department of Public Health was launched and recruited 3 cohorts of intergenerational members in FY19. AmeriCorps members are supporting C4P study recruitment and follow up survey efforts at UCM and in the community. They also staff the C4P Artful Living Program events, and provide support to the C4P social service team. AmeriCorps members

are also supporting the launch and research operations of the C4P model at Ingalls Hospital and assessing the social needs of patients in ambulatory clinics at Rush University Medical Center.

In FY19, Elizabeth Murphy, MD, Director of Clinical Service Development, mentored and orientated 7 additional clinical service leaders — Nicole Bendin, MD; Grace Berry, MD; Hatem Al-Kassem MD; Khanh Nguyen, MD; Dragana Radovanovic, MD; Bridget McGrath, PA, and Meggan Forbes, APN. Clinical service leaders facilitate collaboration and standardize and optimize processes and care coordination. Accomplishments to date include the implementation of a system-wide outside hospital transfer module and Epic tool, development of a liver transplant handbook, and development of interdisciplinary



Dr. Vincent DiMaggio



Dr. Micah Prochaska

malignant bowel obstruction pathway. With leadership from Anton Marius Chivu, MD, Director of Clinical Operations, several major improvements were made to improve clinical care delivery and quality including working with UCM to design and implement a redesign of services to accommodate the tremendous growth of hospital medicine services. In addition, Cheng-Kai Kao, MD led efforts in advancing medical informatics, and efforts regarding clinical decision support systems and clinical documentation improvement.

In FY19, Vincent DiMaggio, MD and Micah Prochaska, MD, MS joined the Section as assistant professors of medicine. Dr. DiMaggio has academic interests that include care for medically, psychologically, and socially complex patients of all ages as well as medical education.

Dr. Prochaska is a hospitalist clinician and health outcomes researcher with a focus on how hospital based interventions for anemia affect patient reported outcomes after hospital discharge.

The Section's research portfolio consisted of \$6.3 million in extramural funding in FY19. In addition to the RWJF and AmeriCorps grants, other new grants include a Department of Defense award to Ishanu Chattopadhyay, PhD to support his work focused on accelerated robust learning via deep knowledge integration. Robert Gibbons, PhD continued his work focused on suicide risk and prevention with three NIMH grants in collaboration with investigators at New York University, Northwestern University and the University of Pittsburgh.

Hospital Medicine faculty continue to be actively engaged in teaching and training of the next generation of physicians and physician scientists at the medical school, residency and at the post graduate level. Matthew Cerasale, MD, MPH and Edwin Rosas, MD were appointed as core faculty for Mercy Hospital's Internal Medicine Residency Program. John Yoon, MD, serves as Associate Program Director of this program and was awarded the Mercy General Internal Medicine Teaching Attending of the Year Award. Drs. Prochaska and Meltzer co-direct the Chicago Translational Medicine Program to train University of Chicago undergraduate students in translational medicine. Dr. Chattopadhyay continued to teach a course focused on machine learning and advanced analytics for biomedicine, as well as a new course in machine learning for biology. Bridget McGrath, PA, Director of NPA Services, maintained affiliate faculty status for Butler University, and served as a clinical preceptor for 5 advanced practice provider (APP) rotation blocks.

### ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Matthew Cerasale, MD, Shannon Martin, MD, MS and Elizabeth Murphy, MD** – Appointed as Senior Fellows in Hospital Medicine by the Society of Hospital Medicine
- **Shannon Martin, MD, MS** – Recipient of the Biological Science Division's Distinguished Educator and Mentor Award and elected to the Association of Program Directors in Internal Medicine (APDIM) Survey Committee
- **Micah Prochaska, MD MS** – Appointed as a member to the National Clinical Transfusion Committee for the AABB and as an Assistant Director of the MacLean Center for Clinical and Medical Ethics
- **David Meltzer, MD, PhD** – Recipient of the 2019 Society of Hospital Medicine Best Research Innovation Oral Abstract Award for "Effects of Comprehensive Care Physicians on Patient Experience, Outcomes and Hospitalization: Preliminary Results of a Randomized Controlled Trial"

### DISCOVERIES AND INNOVATIONS:

- Developed the Consultation Observed Simulated Clinical Experience (COSCE), a simulation-based curriculum for interns using Kessler and colleagues' 5Cs of Consultation model to teach and assess consultation communication skills (Martin, Arora, Farnan, et al., *Academic Medicine*, 2018)
- Found that children of parents who use prescription opioids are at increased risk for suicide attempts, which could be a contributing factor to the time trend in adolescent suicidality (Gibbons, et al., *JAMA Psychiatry*, 2019)
- Determined that transfusion during hospitalization is associated with reduced fatigue 30 days post discharge in patients with higher levels of baseline fatigue (Prochaska, Meltzer, et al., *Vox Sanguinis*, 2018)
- Conducted an analysis using EHR data that maintained that pressure-injury prevention for all inpatients is cost-effective (Meltzer, et al., *BMJ Quality and Safety*, 2019)
- Created Sleep for Inpatients: Empowering Staff to Act (SIESTA), which combines electronic "nudges" to forgo nocturnal vitals and medications with interprofessional education on improving patient sleep (Arora, Mokhlesi, Martin, et al., *Journal of Hospital Medicine*, 2019)

#### PROFESSOR:

David Meltzer, MD, PhD (Chief)  
Jeanne Farman, MD, MHPE  
Robert Gibbons, PhD

#### ASSOCIATE PROFESSORS:

Anton Chivu, MD  
Cheng-Kai Kao, MD  
Shannon Martin, MD, MS

#### ASSISTANT PROFESSORS

Brian Callender, MD  
Matthew Cerasale, MD, MPH

Ishanu Chattopadhyay, PhD  
Thomas Chen, MD, PharmD  
Vincent DiMaggio, MD  
V. Ram Krishnamoorthi, MD, MPH  
Elizabeth Murphy, MD  
Micah Prochaska, MD, MS  
Gregory Ruhnke, MD, MS, MPH  
Andrew Schram, MD, MBA  
Joyce Tang, MD, MPH  
John Yoon, MD

#### CLINICAL ASSOCIATES AND SCHOLARS

Azka Afzal, MD\*  
Hatem Al Kassem, MD

Daniel Aldrich, MD\*  
Daniel Ash, MD  
Lihua Bao, MD  
Nicole Bendin, MD  
Grace Berry, MD  
Kwang Jin Choi, MD  
Tatvam Choksi, MD  
Felicia D' Souza, MD\*  
Anthony de la Peña, MD\*  
Quoc-Doy Dinh, MD\*  
Dana Edelson, MD, MS  
Magdy El Din, MD\*  
Pooja Gala, MD  
(Hospitalist Scholar)

Lizhu Gao, MD  
Sarah Haroon, MD  
Mohamed Hashem, MD\*  
David Hwang, MD  
Stephen Junic, MD\*  
Katarzyna Kadela, MD\*  
Navneet Kaur, MD  
Anne Kelly, MD  
Ali Khan, MD  
Ehtasham Khattak, MD  
Victor Kim, MD\*  
Vivian Lee, MD  
(Hospitalist Scholar)  
Xixi Luo, MD\*

Maylyn Martinez, MD\*  
(Hospitalist Scholar)  
Ghassan Mubarak, MD\*  
John Murray, MD\*  
Khanh Nguyen, MD  
Elvisa Orhani, MD\*  
Justin Porter, MD+  
(Hospitalist Scholar)  
Dragana Radovanovic, MD  
Alexander Reisner, MD  
Edwin Rosas, MD  
Natasha Singh, MD\*  
Audrey Tanksley, MD  
Sandeep Tummala, MD\*

Maya Viner, MD\*  
Rebecca Wilson, MD\*  
Madhu Yarlagadda, MD  
Tina Zhu, MD\*  
**SECTION ADMINISTRATOR**  
Rebecca Schedin, MPPA

\*New FY20 faculty



# SECTION OF INFECTIOUS DISEASES AND GLOBAL HEALTH



Dr. David Pitrak

The Section of Infectious Diseases, under the direction of David Pitrak, MD had a very successful year in terms of growth, expansion and recognition of its outstanding clinical, research and educational programs. The Section's most notable accomplishments include the recruitment of several faculty, national recognition of the Antimicrobial Stewardship Program, the acquisition of a multi-million dollar, high impact NIH U2 award to fight opioid addiction and overdoses in criminal justice populations and the renewal of the Expanded HIV Testing and Linkage to Care Program by the Chicago Department of Public Health (CPDH).

In FY19, Moira McNulty, MD, and Aniruddha (Anu) Hazra, MD, both assistant professor of medicine, joined the Section. Dr. McNulty is a NIH K award recipient who is investigating the next generation of HIV screening strategies to enhance HIV elimination efforts. Dr. Hazra focuses his work on sexually transmitted infections and their impact on gender and sexual minorities and serves as the medical director of the new Sexual Wellness Clinic, a collaborative effort with the Emergency Department. In late FY19, Eric Pamer, MD was recruited to the University of Chicago as the inaugural director of the Duchossois Family Institute, and serves as professor of medicine in the Section effective July 1, 2019. Dr. Pamer is an international expert in the role of the microbiome in the treatment of cancer.

Within the clinical programs, the Section has a very active 24/7 consultative service as well as a very busy immunocompromised host

service that serves the oncology and transplant programs. Under the direction of Jennifer Pisano, MD, the Antimicrobial Stewardship Program (ASP) continued to make great contributions to the medical center by assuring appropriate antimicrobial use at UCM, not only through day to day review of antibiotic usage, but also innovative education efforts aimed at both physicians and patients. In FY19, the ASP program received Center of Excellence designation from Infectious Diseases Society of America (IDSA), recognition only given to 41 US medical centers for implementing stewardship protocols to optimize the treatment of infections and reduce adverse events associated with antibiotic use to help clinicians improve the quality of patient care and promote patient safety. In other quality initiatives, the UCM has continued to meet all its goals with respect to hand hygiene, central line associated bloodstream infections, and catheter associated UTIs, and



Dr. Aniruddha (Anu) Hazra



Dr. Moira McNulty

continues to combat C. difficile infection in the hospital. These accomplishments by the Infection Control Program (Emily Landon, MD - Director) contribute significantly to the medical center's perennial A ratings from the Leapfrog Group.

The Chicago Center for HIV Elimination (John Schneider, MD and David Pitrak, MD - Co-Directors) is the hub for many of the clinical, research and educational activities in the Section. With non-stop funding from the CDPH since 2011 and recently renewed for 5 additional years, Dr. Pitrak continues to focus his efforts on expanded HIV testing and linkage to care (X-TLC) for disproportionately affected populations in healthcare settings at UCM and at over a dozen other sites on the south and west sides of Chicago, including Cook County Hospital, Ingalls Memorial Hospital, Loyola University Medicine Center, and the Howard Brown Health Clinic. This successful program has resulted in diagnosis of patients at an earlier

stage of disease and also reduced early AIDS-related deaths within 1 year of diagnosis. There are also efforts to combat HIV, HCV, and drug addiction across the state, and global connections with HIV prevention programs in Greece and China.

The Section's research programs are very robust and span the areas of infectious diseases, public health, and global health. In FY19, the Section's research portfolio totaled over \$45M accentuated by a new U2 award (John Schneider, MD - PI) to develop a methodology and advanced analytics resource center (MAARC) with investigators from the University of Chicago, Argonne National Labs, and NORC to investigate opioid use disorder within justice contexts. In addition Dr. Schneider was awarded a new NIH K12 to develop a program focused on Third Coast HIV-Related Cardiovascular and Sleep Disorders. These awards will greatly enhance work done as part Third Coast Center for AIDS Research (CFAR), a partnership with Northwestern, the AIDS Foundation of Chicago, the Chicago Department of Public Health, the Alliance of Chicago Community Health Systems, and the Center on Halsted, to reduce the very high rate of new HIV infections among young minority MSM in Chicago. Other news awards in FY19 include an NIH K23 awarded to Dr. McNulty focused on improving the implementation and scale-up of effective HIV prevention and treatment interventions used in Getting to Zero initiatives for HIV elimination, and a K99 awarded to Lindsay Young, PhD focused on HIV prevention and care. In clinical trials research, Dr. Kathleen Mullane continues to conduct a number of studies of new antimicrobial agents, with many of her studies benefiting the immunocompromised patients in our leukemia, stem cell transplant, and solid organ transplant programs.

In the educational arena, the Infectious Diseases and Global Health Fellowship Program continued to attract outstanding fellows. In FY19 several fellows furthered their academic training by enrolling in advanced programs in public health studies, outcomes research and medical ethics. The Wuhan University Medical Education Reform (WUMER) Project, (Renslow Sherer, MD, Director and Associate Director, Jon Lio, MD) is now in its tenth year. The hugely successful program continues to lead faculty development, undergraduate curriculum improvement, and residency training at Wuhan University and has been very well received by the China Higher Education Association. In FY19, Dr. Sherer served as lead editor of a book entitled "Medical Education Reform in China: Practical Lessons from Wuhan University".



Kathleen Mullane, DO - 2019 BSD Distinguished Clinician Award



Mai Pho, MD - 2019 BSD Distinguished Leader in Community Service and Advocacy.

## DISCOVERIES AND INNOVATIONS:

- Reported on plerixafor for the treatment of WHIM syndrome (Landon, et al., *New England Journal of Medicine*, 2019)
- Reported on the efficacy of fidaxomicin prophylaxis on the incidence of Clostridium difficile-associated diarrhea in adults undergoing hematopoietic stem cell transplantation. (Mullane, et al., *Clinical Infectious Diseases*, 2019)
- Provided new information on public health services and opioid addiction, HIV, and HCV rates in rural Illinois (Pho, Schneider, et al., *International Journal of Environmental Research and Public Health*, 2019)
- New insights on naloxone prescriptions for individuals at risk for opioid overdose (Pho, et al., *JAMA Network Open*, 2019)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Titus Daniels, MD** - Named Chief Medical Officer for Community Health and Hospitals Division where he will support the staff development and integration of providers at Ingalls Memorial Hospital in Harvey and its ambulatory sites on the South Side
- **Kathleen Mullane, DO** - Recipient of the Biological Sciences Division Distinguished Clinician, Senior Award
- **Mai Pho, MD** - Recipient of the Biological Sciences Division Distinguished Leader in

### PROFESSORS

David Pitrak, MD (Chief)	Aditya Khanna, PhD*
Kathleen Mullane, DO, PharmD	Jonathan Lio, MD
Eric Pamer, MD*	Moira McNulty, MD, MPH
Kenneth Pursell, MD	Jennifer Pisano, MD
John Schneider, MD, MPH	Mai Pho, MD, MPH
Renslow Sherer, MD	Jessica Ridgway, MD
Stephen Weber, MD, MS	Stephen Schrantz, MD, MPP

### ASSOCIATE PROFESSORS

Jean-Luc Benoit, MD  
Russell Brewer, DrPH, MPH\*  
Titus Daniels, MD  
Emily Landon, MD

### INSTRUCTOR

Jade Pagkas-Bather, MD\*

### SECTION ADMINISTRATOR

Jimmy Jung

### ASSISTANT PROFESSORS

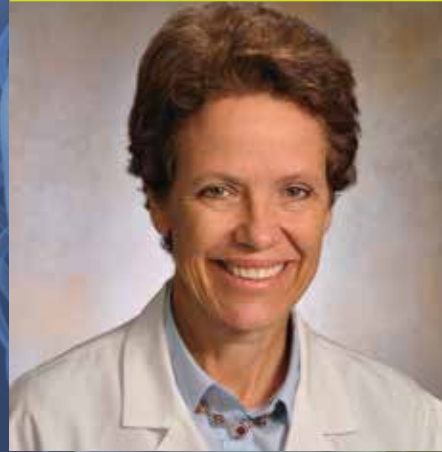
Aniruddha Hazra, MD

+ FY20 faculty  
\*\* Research Assistant Professors

- Community Service and Advocacy, Junior Award. Dr. Pho was also appointed as Medical Advisor for Healthcare Research and Policy at the Illinois Department of Public Health
- **Jennifer Pisano, MD** - Selected for the prestigious Infectious Diseases Society of America Leadership Program
- **Stephen Schrantz, MD** - Named as principal investigator for the Pediatric AIDS Chicago Prevention Initiative



## SECTION OF NEPHROLOGY



Dr. Arlene Chapman

Under the direction of Arlene Chapman, MD, the Section of Nephrology continues its multidirectional mission of excellence in clinical care, education and scholarly activity. The FY19 academic year was an outstanding year for the Section with many accomplishments including recognition by *US News and World Report*, new research funding, and new educational initiatives.

Within the clinical programs, Nephrology improved to # 31 from highly ranked (>50) in the *U.S. News & World Report 2019-20* survey of best hospitals, after being listed as “high performing” last year. Other achievements include the opening of the Section’s sixth outpatient dialysis unit, Brighton Park, under the direction of Rita McGill, MD. The five other University of Chicago Medicine (UCM) led, DaVita-owned outpatient dialysis units continue to deliver excellent patient care. The Woodlawn Outpatient Dialysis Unit led by Mary Hammes, MD, received 5 out of 5 stars on the CMS star-rating system. In FY20, the Section plans to open a seventh dialysis unit.

In FY19, the Nephrology Ambulatory Clinic (Anna Zisman, MD- Director) continued its efforts to build a comprehensive multidisciplinary kidney care program, adding nutritional services and social work support for the complex patient population. In addition, Dr. Hammes coordinated two monthly vascular access multi-disciplinary conferences between Nephrology, Surgery, and Interventional Radiology in order to improve patient outcomes and facilitate communication

among disciplines. “Access” conferences include case presentations at Vascular Surgery Grand Rounds with discussion to determine the best approach personalized for each patient. Under the direction of Michelle Josephson, MD, the Renal Transplant Program realized a 21% volume increase in renal transplant as compared to FY18.

The Section of Nephrology is proud of its innovative bench, translational and patient oriented investigations in polycystic kidney disease, acute kidney injury, epithelial cell transport, growth, and gene expression, and the pathophysiology of kidney stone formation. In FY19 the research efforts of Hatim Hassan, MD, PhD resulted in successful funding to develop a peptide-based oral drug to prevent kidney stones. A multimillion NIH STTR grant was awarded to Dr. Hassan’s startup company, Oxalo Therapeutics, where his studies focus on further characterization of Oxalobacter formigenes-derived small peptides (P8 and P9) having significant therapeutic potential for hyperoxalemia, hyperoxaluria, and related kidney stones. This includes structural modifications of these peptides to enhance their in vivo stability

against proteolytic degradation, characterization of the shortest functional peptide subdomains, identification of the involved cell surface receptor(s) and oxalate transporter(s), and defining the signaling pathways mediating stimulation of oxalate transport in human intestinal Caco-2 BBE cells. Other projects focus on defining the roles of leptin, proinflammatory cytokines and altered gut microbiome in the pathogenesis of inflammatory bowel disease-associated hyperoxaluria, and the role of altered gut microbiome and increased hepatic oxalate production in the pathogenesis of obesity-associated hyperoxaluria. In other grant news, Jay Koyner, MD, was awarded an NIH R21 to develop an early real-time electronic health record risk algorithm for the prevention and treatment of acute kidney injury.

The Nephrology Fellowship Program (Anna Zisman, MD- Program Director) transitioned to a new era of educational excellence in FY19. Under Dr. Zisman’s guidance, the Nephrology fellows presented a poster on quality measures in dialysis units to the 14th Annual Quality & Safety Symposium. The Nephrology Training Program successfully recruited four outstanding fellows for FY20, including two recruits from the Department’s residency program. A monthly multidisciplinary pathology conference is now a part of the Renal Grand Rounds curriculum in conjunction with the Department of Pathology, directed by Drs. Anthony Chang and Kammi Henriksen. Under the direction of the Associate Program Director Ben Ko, MD,

### PROFESSORS:

Arlene Chapman, MD (Chief)  
Fredric Coe, MD  
Michelle Josephson, MD  
Elaine Worcester, MD

### ASSOCIATE PROFESSORS:

Mary Hammes, DO  
Benjamin Ko, MD  
Orly Kohn, MD  
Jay Koyner, MD  
Rita McGill, MD  
Tipu Puri, MD, PhD  
Bharathi Reddy, MD  
Nicole Stankus, MD  
Anna Zisman, MD

### ASSISTANT PROFESSORS:

Patrick Cunningham, MD  
Hatim Hassan, MD, PhD  
Pratik Shah, MD

### INSTRUCTOR:

Megan Prochaska, MD\*

### CLINICAL ASSOCIATE:

John Asplin, MD

### SECTION ADMINISTRATOR:

Matthew Lagen

\*New FY20 faculty  
\*Research track faculty

the second year of the fellowship program now provides 4 intensive training tracks leading fellows to become subject matter experts in subspecialized areas of Nephrology. The Nephrology fellows represented the Section at the citywide 2019 National Kidney Foundation “Controversies in Nephrology” debate under the mentorship of Patrick Cunningham, MD and won the audience’s choice for best debate team in the city. Dr. Ko is preparing for the third year of the successful national TREKS award (Tutored Research and Education for Kidney Scholars) program, the second grant of its kind ever awarded by the American Society of Nephrology. Through the TREKS program, medical students interested in nephrology from all over the country spent one week in July 2019 at the University of Chicago participating in an integrated experience in both clinical and research nephrology to foster careers as future nephrologists.

On May 16, 2019, the Section hosted its second annual University of Chicago Nephrology Research Day entitled “Acute Kidney Injury.” The symposium included speakers from across the city of Chicago including Rush Medical College, Northwestern University, NorthShore University Health System, University of Chicago presenters in the Departments of Anesthesia, Section of Pulmonary & Critical Care and Cardiology, and national experts including Dr. Kathleen Liu of the UCSF School of Medicine.



Drs. Afaf Osman, Hatim Hassan, and Funmi Olopade.

## DISCOVERIES AND INNOVATIONS:

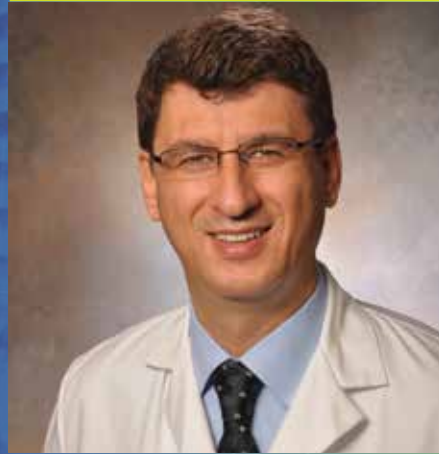
- Conducted a genome wide association study to elucidate the underlying genetic determinants in European Americans contributing to variability in blood response to beta-blockers (Singh, Chapman, et al, *Clinical Translational Science*, 2019)
- Conducted a critical review of published literature for sepsis associated acute kidney injury (SA-AKI) to refine understanding of SA-AKI, and possibly set a new course for prevention, treatment, and renal recovery (Poston, Koyner, *British Medical Journal*, 2019)
- Demonstrated that copeptin holds promise as a biomarker to predict outcome and tolvaptan treatment efficacy in autosomal dominant polycystic kidney disease (Gansevoort, Chapman et al, *Kidney International*, 2019)
- Measured the hemodynamic effects of hemodialyzer pump speed on arteriovenous fistulas (Hammes, McGill, et al, *Clinical Nephrology*, 2019)
- Showed that enhanced gastrointestinal passive paracellular permeability contributes to the obesity-associated hyperoxaluria. (Bashir, Hassan, et al, *American Journal of Physiology Gastrointestinal Liver Physiol*, 2019)
- Developed an acute kidney injury risk prediction model using electronic health record data for longitudinal use in hospitalized patients (Koyner, et al, *Critical Care Medicine*, 2018)

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- Arlene Chapman, MD** – Served as Meira and Shaul G. Massry Foundation’s Visiting Professor in Nephrology for the Departments of Medicine and Divisions of Nephrology of the greater Los Angeles area and presented the Vincent Gattone Memorial Lecture on Polycystic Kidney Disease at Indiana University School of Medicine
- Jay Koyner, MD** – Recipient of the 2019 American Society of Nephrology Distinguished Clinical Service Award
- Michelle Josephson, MD** – Recipient of the 2019 American Society of Transplantation Achievement Award for Mentoring. Dr. Josephson was also appointed as co-Chair of the 2020 American Society of Transplantation “Cutting Edge of Transplantation (CEOT) meeting
- Pratik Shah, MD** – Received the 2019 Michael Reese “Bench to Bedside” Translational Grant Award.
- Fredric Coe, MD** – Named to the annual ranking of *Chicago* magazine’s “Top Doctors” for 2019
- Mary Hammes, MD** – Recipient of the 2019 Department of Medicine’s Procedure Activity Award
- Nicole Stankus, MD** – Recipient of the 2019 Department of Medicine’s Overall Clinical Activity Award



# SECTION OF PULMONARY/ CRITICAL CARE MEDICINE



Dr. Gökhan Mutlu

Under the leadership of Gökhan Mutlu, MD, the Section of Pulmonary and Critical Care Medicine continues to be recognized nationally for excellence in patient care, education and research. In FY19, four new faculty joined the Section: Renea Jablonski, MD, assistant professor of medicine, is a physician scientist whose research focuses on interstitial lung diseases (ILD). Krysta Wolfe, MD, assistant professor of medicine, is a physician scientist who studies the impact of vasopressors on outcomes in critically ill patients. Nathan Schoettler, MD, PhD, instructor, is a physician scientist interested in understanding the T cell responses in asthmatics to better understand the mechanisms of asthma. Dr. David Wu, MD, PhD, instructor, is a physician scientist who studies how mechanotransduction affects cellular metabolism to drive endothelial dysfunction during acute lung injury and sepsis.

The Section's inpatient and outpatient clinical programs continued to grow in FY19. Under the direction of Mary Strek, MD, the Interstitial Lung Disease Program (ILD) continues to be the leading program in Chicago area and one of the top programs nationally. Under the direction of Remzi Bag, MD, the Pulmonary Hypertension (PH) Program continues to grow in volume. Due to high numbers of patients, both the ILD and PH programs participated in large multicenter clinical trials. Growth in inpatient patient volumes particularly that in the medical ICU, has resulted in the expansion of the MICU service to include an APN ICU. Consequently, JP Kress, MD was appointed as the medical director of the APN ICU and led the outstanding efforts to start the new 8 South APN ICU. Under the direction of Babak Mokhlesi, MD and with the help of sleep experts, Jessica Cooksey, MD, Esra Tasali, MD and Tanya Wells, APN, the Sleep Program will continue to provide care in the newly built River East multidisciplinary clinic in the downtown area. The Lung Transplant Program has expanded its clinical operation to the Orland Park facility where Edward Garrity, MD has started a clinic.

The Section maintains a successful research program and had a remarkable year securing extramural support. Dr. Wu received a NIH K99/R00 to study the molecular mechanisms linking cellular metabolism to endothelial cell function. Ayodeji Adegunsoye, MD received ACCP Chest Foundation Award to study the impact of telomere length on pulmonary fibrosis clusters. Ted Naureckas, MD successfully renewed the CT center and CF guidelines grants. Anne Sperling, PhD was awarded an NIH R21 to study the effects of microbiome in acute lung injury outcomes. Dr. Strek and Anne Sperling, PhD received a Duchossois Family Foundation Grant to characterize the T-lymphocyte response to inhalational exposures in patients with interstitial lung diseases. Gökhan M. Mutlu, MD was one of the project leaders of a P01 award to study the role of endothelial cell metabolism in intermittent hypoxia induced cardiovascular disease. Robert B. Hamanaka, PhD received the Respiratory Health Association grant to study the role of fibroblast metabolism in pulmonary fibrosis.

On the educational front, the Section's faculty continue to distinguish themselves in all domains

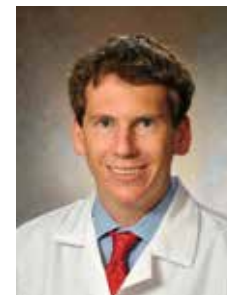


Dr. Krysta Wolfe

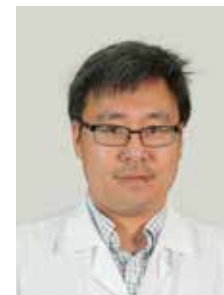


Dr. Renea Jablonski

of teaching and training. The T32 training program co-led by Dr. Sperling and Julian Solway, MD entered its 35th year. Based on the almost perfect score, the Section is confident that the T32 grant will be renewed during early FY20. The pulmonary and critical care fellowship program director, **Jason Poston, MD** received the Favorite Faculty Award from the Pritzker School of Medicine graduating students for the seventh time. The Section continues to recruit outstanding fellows into our three fellowship programs: pulmonary and critical care medicine, sleep medicine and interventional pulmonary (IP). The IP Fellowship Program has recently been awarded full accreditation by the AABIP/AIPPD.



Dr. Nathan Schoettler



Dr. David Wu



Dr. Edward Garrity  
Recipient of the  
Distinguished Service Award

## ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Ayodeji Adegunsoye, MD** – Received the PCORI Network Green Shoots Award for Young Investigators
- **Yun Fang, PhD** – Elected to the 2019 Biological Sciences Division (BSD) Faculty Advisory Board
- **Edward Garrity, MD** – Recipient of the Department of Medicine Distinguished Service Award and named by *Chicago* magazine as a Top Doctor
- **Robert Guzy, MD, PhD, Yun Fang, PhD and Robert Hamanaka, PhD** – Appointed as Editorial Board member of the *American Journal of Respiratory and Cell Molecular Biology*.
- **Kyle Hogarth, MD, and Septimiu Murgu, MD** – Received the CHEST Distinguished Educator Award
- **Anne Sperling, PhD** – Selected as the Parker B. Francis speaker at the American Thoracic Society
- **Mary Strek, MD** – Received the CHEST Distinguished Educator Award and served as Co-Chair of Faculty Advisory Committee, BSD
- **David Wu, MD, PhD** – Recipient of the Best Abstract Award (Basic Research) at the 2019 Department of Medicine Janet Rowley Research Day, Central Society for Clinical and Translational Research Early Career Development Award and ASCI Young Physician Scientist Award

**PROFESSORS:**  
Gökhan M. Mutlu, MD (Chief)  
Edward Garrity, Jr., MD  
Kyle Hogarth, MD  
John P. Kress, MD  
Babak Mokhlesi, MD  
Edward Naureckas, MD  
Julian Solway, MD  
Mary Strek, MD  
Steven White, MD

Nickolai Dulin, PhD  
John McConville, MD  
Pamela J. McShane, MD  
Septimiu Murgu, MD  
Jason Poston, MD  
Anne Sperling, PhD  
Esra Tasali, MD

**ASSISTANT PROFESSORS:**  
Jessica Cooksey, MD  
Yun Fang, PhD  
Laura Frye, MD  
Robery D. Guzy, MD, PhD  
Robert B. Hamanaka, PhD

Renea Jablonski, MD  
Bhakti Patel, MD  
Phillip Verhoef, MD, PhD  
Krysta Wolfe, MD

**INSTRUCTORS**  
Ayodeji Adegunsoye, MD  
Cara Hrusch, PhD  
William Parker, MD\*  
Juan Rojas, MD\*  
Nathan Schoettler, MD, PhD  
David Wu, MD, PhD

**CLINICAL ASSOCIATE:**  
Rekha Vij, MD

**SECTION ADMINISTRATOR:**  
Elneda Boyd

\* Research Associate track faculty  
+ New FY20 Faculty

## DISCOVERIES AND INNOVATIONS:

- Demonstrated that mediastinal lymph node size can be used to prognosticate outcomes in interstitial lung disease (Adegunsoye, Hrusch, Sperling, Vij, Strek, *American Journal of Respiratory and Critical Care Medicine*, 2019)
- Published the first single cell transcriptomics analysis of human lung from patients with IPF (Hrusch, Guzy, Sperling, Bag, Hamanaka, Mutlu, *American Journal of Respiratory and Critical Care Medicine*, 2018)
- Discovered the role of sustained Smad2 phosphorylation in myofibroblast transformation in response to TGF-β (Guzy, Mutlu, Dulin, *American Journal of Respiratory Cell and Molecular Biology*, 2019)
- Reported the role of electromagnetic navigation bronchoscopy for peripheral lung lesions. (Hogarth, Murgu, *Journal of Thoracic Oncology*, 2019)
- Reported the results from a multicenter trial comparing effectiveness of CPAP and non-invasive ventilation in patients with obesity hypoventilation syndrome (Mokhlesi, *Lancet*, 2019)
- Discovered the role of PHGDH in pulmonary fibrosis (Hamanaka, Guzy, Wu, Dulin, Mutlu, *American Journal of Respiratory Cell and Molecular Biology*, 2018)
- Demonstrated the existence of an IL-6 high asthma phenotype among patients of African ancestry (White, Naureckas, Hogarth, Solway, Sperling, *Journal of Allergy and Clinical Immunology*, 2019)
- Discovered that CT honeycombing identifies a progressive fibrotic phenotype with increased mortality in ILD (Adegunsoye, Churpek, Vij, Strek, *Annals of the American Thoracic Society*, 2019)
- Wrote an overview of connective tissue disease associated ILD and management (Jablonski, Strek, *Encyclopedia of Respiratory Medicine*, 2019).
- Revealed previously unknown genetic effect that can raise or reduce risk of heart disease (Wu, Fang, *PNAS*, 2018)
- Discovered the role of mitochondrial function in particulate matter-induced lung inflammation and vascular thrombosis (Hamanaka, Mutlu, *Cell Metabolism*, 2019)
- Reported the impact of vasopressors on ICU-acquired weakness (Wolfe, Patel, Churpek, Hall, Kress, *Chest*, 2018)
- Discovered the requirement of glutamine metabolism in collagen protein synthesis by lung fibroblasts (Hamanaka, Dulin, Mutlu, *American Journal of Respiratory Cell and Molecular Biology*, 2019).
- Demonstrated that telomere length and SNP associations with survival and disease progression in ILD (Strek, *European Respiratory Journal*, 2019)



## SECTION OF RHEUMATOLOGY



Dr. Marcus Clark

Under the leadership of Marcus Clark, MD, the Section of Rheumatology continued its tradition of clinical excellence, innovative research and outstanding clinical training focused on understanding autoimmunity with the goal of improving the care of those afflicted with diseases such as lupus, rheumatoid arthritis, vasculitis and polymyositis. In the past year, Section faculty contributed to major advancements in the field of immunology that have the potential to translate into cutting edge treatments for those suffering from autoimmune and infectious diseases.

The Section maintains outstanding disease-focused clinical programs that drive its reputation for excellence in the treatment of rheumatic diseases. Two new academic clinicians recently joined the Section. Iazsmin Ventura, MD, assistant professor of medicine, completed her Masters' Degree in Public Health Sciences and will focus on myositis and autoimmune-associated interstitial lung disease. She is working with Drs. Jim Curran, Mary Strek and Vladimir Liarski to establish and build an integrated program in these diseases that both provides outstanding clinical care and enables patient oriented translational and clinical investigation. Pankti Reid, MD, assistant professor of medicine, joined the faculty in July 2019 after completing fellowships in both rheumatology, clinical pharmacology and pharmacogenomics. Dr. Reid is bridging rheumatology and oncology

by establishing a comprehensive clinical care center focused on autoimmune syndromes induced by cancer immunotherapies. She is also working with Peter O' Donnell, MD to incorporate genomics into our decisions on how to treat rheumatic disease patients. These new clinical programs complement ongoing programs in lupus led by Drs. Kichul Ko and Kimberly Trotter and inflammatory arthritis led by Drs. Reem Jan and Jim Curran.

With research funding of approximately \$7.5M, the Section's robust investigative programs focus on both innate and adaptive immunity. While the Section is committed to autoimmunity, our research in immunity has evolved to include innovative studies relevant to influenza, the microbiome and cancer. Indeed, by focusing on fundamental immunological mechanisms, the



Dr. Iazsmin Ventura



Dr. Pankti Reid

Section's investigative work provides insights into the complex interplay between the immune system and disease. This broad and impactful approach successfully enabled Drs. Patrick Wilson and Marcus Clark to renew the NIH Autoimmunity Center of Excellence (ACE) Award. The University of Chicago ACE, one of only ten such centers in the United States, is focused on applying cutting edge and novel technologies to understand human autoimmunity and develop new therapeutics. Dr. Wilson was also part of two multi-institution research teams that successfully renewed NIH-funded programs in influenza research. These awards build on fundamental findings by Dr. Wilson and others that pave the way to develop a universal influenza vaccine. Through new and renewed grants, the Section has been able to maintain a robust grant portfolio enabling

### ACCOMPLISHMENTS AND HIGHLIGHTS:

- **Maria-Luisa Alegre, MD, PhD** – Awarded the American Society of Transplantation (AST) Basic Science Established Investigator Award at the professor level (2019) for excellence in research and service to the transplantation community. Previously, Dr. Alegre has won the AST Basic Scientist Award at both the associate professor (2011) and assistant professor (2005) levels. She was also this year's Paul S. Russell Visiting Professor at the Massachusetts General Hospital and Harvard Medical School.
- **Carole Henry, PhD** – Recipient of the Department of Medicine Research Day Best Abstract Award (Translational Research) for her abstract entitled "Influenza virus vaccination elicits poorly adapted B cell responses in elderly individuals"

#### PROFESSORS

Marcus Clark, MD (Chief)  
Maria-Luisa Alegre, MD, PhD  
James Curran, MD  
Leif Sorensen, MD, PhD\*  
Patrick Wilson, PhD

Reem Jan, MD

Kichul Ko, MD  
Vladimir Liarski, MD  
Kimberly Trotter, MD  
Iazsmin Ventura, MD  
Pankti Reid, MD\*

#### ASSOCIATE PROFESSORS

Fotini Gounari, PhD

Malay Mandal, PhD\*\*

#### ASSISTANT PROFESSORS

Cuoghi Edens, MD\*\*\*

#### SECTION ADMINISTRATOR

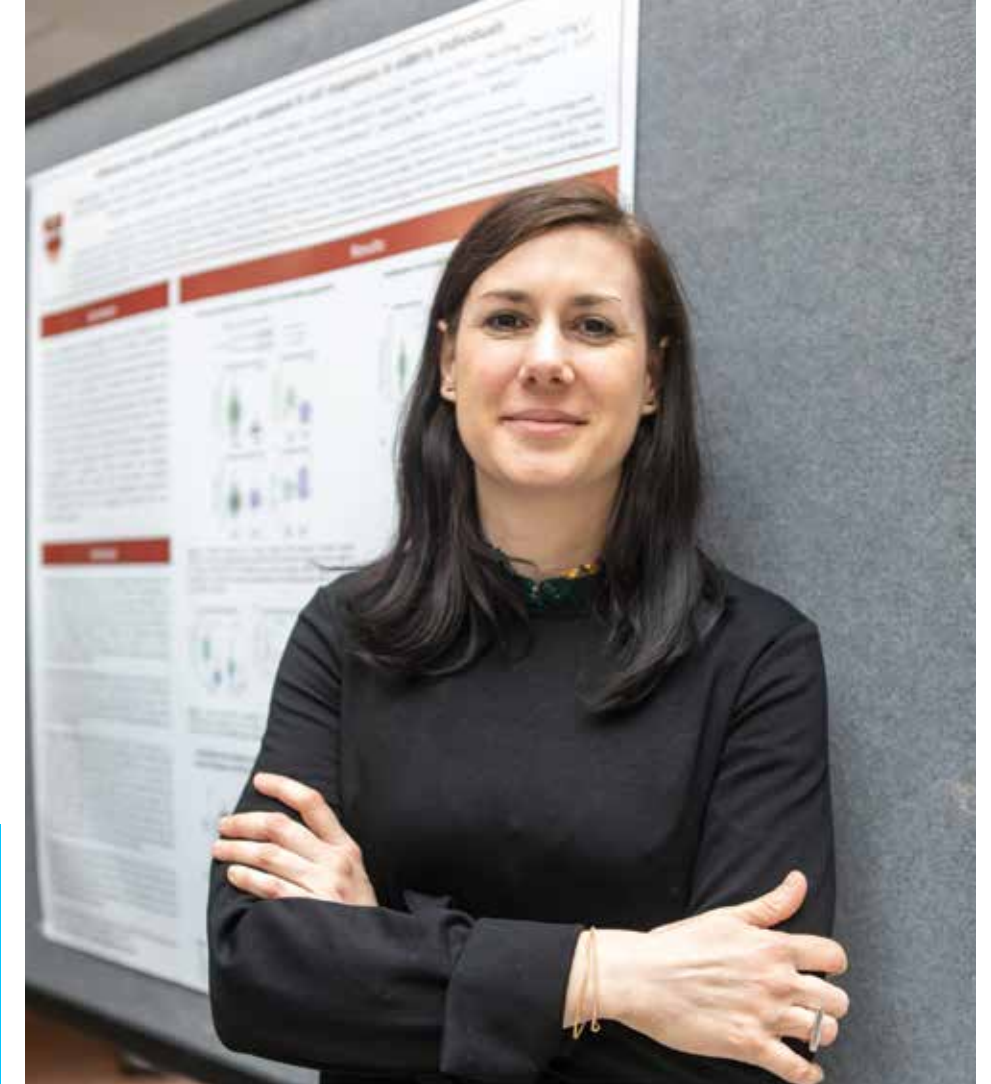
Ann Leu

\* Emeritus

\*\* Research Associate track faculty

\*\*\* Joint appointment with Pediatrics

\*New FY20 faculty



Dr. Carole Henry

### DISCOVERIES AND INNOVATIONS:

- Developed a novel computational approach, using deep machine learning, to identify adaptive cell networks in human tissue. This approach will pave the way for a new mechanistic understanding of in situ immune responses in human diseases (Liarski, Clark and colleagues, *Nature Immunology*, 2019)
- Demonstrated a fundamental role for the transcription factors Tcf-1 and HEB in the development of T cells. This paper helps establish a new paradigm for how genetic and epigenetic programs integrate to decide T cell fate (Gounari and colleagues, *Nature Immunology*, 2018)
- Demonstrated novel links between antibody responses to influenza and the transcriptional state in single cells (Wilson and colleagues, *Journal of Clinical Investigation*, 2019)
- Provided insights into how protective immunity fails to develop in the elderly following influenza vaccination (Wilson and colleagues, *Cell Host and Microbe*, 2019)
- Revealed novel relationships between acute transplant rejection and TCR avidity (Alegre and colleagues, *Cell Reports*, 2019)
- Demonstrated, for the first time, that a chemokine receptor can directly instruct an important cell fate decision (Mandal, Clark and colleagues, *Nature Immunology*, 2019)



## Internal Medicine Residents

## 2019 Chief Residents

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
Lauren Feld		Mount Sinai
Sarah Gray		University of Michigan
Marie McKinnon		University of Colorado
David Tehrani		University of California, Irvine

## 2020 Chief Residents

Kirk Cahill		University of Chicago
Jennifer Houpy		University of Chicago
Joshua Katz		Loyola University
Elizabeth Munroe		University of Chicago

## Third Year Residents

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
Murtaza Bharmal	III	University of Vermont
Kent Brummel	III	Northwestern University
Jennifer Cooperrider	III	Ohio State University
Brooke Cuit	III	Thomas Jefferson University
Bonnie Diep	III	University of Southern California
Elizabeth Donnelly	III	University of Chicago
Donald Goens	III	University of California, San Francisco
Gregory Ingolia	III	University of Colorado
Anthony Kanelidis	III	University of Miami
Shivani Khanna	III	Boston University
Neal Klauer	III	University of Minnesota
Brian Labadie	III	University of California, Irvine
Jonathan Lattell	III	Loyola University
Betty Li	III	University of Illinois
Austin Lin	III	University of Michigan
Maria Maldonado	III	Baylor University
Michael Maranzano	III	Duke University
Steven Mazzone	III	Rush Medical College
Rebeca Ortiz Worthington	III	University of Chicago
Charles Oshinsky	III	New York University
Raghavendra Paknikar	III	University of Michigan
Peter Petropulos	III	University of Illinois
Eleanor Reimer	III	University of Michigan
Hannah Roth	III	University of Chicago
Anthony Serritella	III	Johns Hopkins University
Wenfei Wang	III	University of Toledo
Hannah Wey	III	Rutgers University

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
William Wilson	III	Indiana University
Thomas Yates	III	Wake Forest University

## Second Year Residents

Rasidat Adeduntan	II	University of Virginia
Gaurav Ajmani	II	University of Chicago
Spencer Carpenter-Carter	II	University of North Carolina
Edna Chukwurah	II	Ross University
Ellen Daily	II	University of Chicago
Anup Das	II	University of Michigan
James Dolezal	II	University of Pittsburgh
Jonathan Dowd	II	Loyola University
Marie Dreyer	II	Medical College of Wisconsin
Nolan Faust	II	University of Chicago
Dariusz Hareza	II	Albert Einstein College of Medicine of Yeshiva University
Jacobi Hines	II	University of Virginia
Michael Jacobs	II	Thomas Jefferson University
So Lim Kim	II	Case Western Reserve University
Aristotle Leonhard	II	Medical College of Wisconsin
Ross McMillan	II	Johns Hopkins University
Tamari Miller	II	University of Chicago
Satish Mishra	II	St. George's University
Nupur Mistry	II	Saint Louis University
Julia Nath	II	University of Chicago
Patrick Naureckas	II	University of Illinois
Shirlene Obuobi	II	University of Chicago
Kevin Prescott	II	University of Illinois
Corey Rearick	II	University of Pittsburgh
Ashely Smith-Nunez	II	University of Washington
Ragha Suresh	II	Rutgers University
Joseph Thomas	II	Indiana University
Dennis Jingzhou Wang	II	University of Virginia
Joshua Waytz	II	University of Chicago
Joseph Weber	II	Loyola University
Kathleen Wiest	II	University of Chicago
Maryam Zafer	II	Icahn School of Medicine at Mount Sinai

## First Year Residents

Mary Acosta	I	Florida Atlantic University
Juan Alban	I	University of Illinois
Sean Anderson	I	Medical College of Wisconsin
Jesse Drapekin	I	Case Western Reserve University
Claire Dugan	I	University of Chicago
Roman Durazo	I	University of Southern California
Christopher Fernandez	I	University of Illinois
Rachel Folz	I	Thomas Jefferson University
Ashish Gandhi	I	Emory University
Daniel Gold	I	Wayne State University
Matthew Gold	I	Duke University
Tegan Gomez	I	University of Illinois
Jia Guo	I	University of Chicago
Gong He	I	Wayne State University
Lauren He	I	University of Michigan
Rachel Karani	I	University of Cincinnati
Dan Klarr	I	University of Michigan

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
Nathan Kong	I	Northwestern University
Alice Lee	I	University of Chicago
Kimberly Lu	I	Boston University
Kristen Mathias	I	Baylor University
Lucia Notardonato	I	Medical College of Wisconsin
Alexandra Rojek	I	University of California
Giancarlo Saldana	I	University of Illinois
Patrick Schiller	I	University of Chicago
Chelsea Smith	I	University of Michigan
Misha Tran	I	Case Western Reserve University
Albina Tyker	I	Saint Louis University
Benjamin Vazquez	I	University of Illinois
Joseph Westrich	I	Loyola University
Meng Wu	I	University of Chicago

## Preliminary

Peter Georginis	I	St. George's University
Palmer Greene	I	University of Chicago
Jacob Kanter	I	Loyola University
Kunal Karani	I	University of Cincinnati
Estela Martinez Escala	I	University of Barcelona
Erich Schadler	I	University of Chicago
Zachary Solomon	I	Baylor University

## Physician Scientist Development Program

Athalia Pyzer	III	University of Birmingham College of Medical and Dental Science (GB)
Joseph Goldenberg	II	University of Illinois
Jeremy Treger	II	University of Chicago
Lauren Young	II	New York University
Anna Czapar	I	Case Western Reserve University
Alan Hutchison	I	University of Chicago
Samantha Sawicki	I	University of Chicago

## Medicine-Pediatrics Program

## Fourth Year Residents

Erin Hickey	III	University of Colorado
Stephanie Kelly	III	McGill University
Jori Sheade	III	Rush Medical College
Daniel Teixeira da Silva	III	Boston University

## Third Year Residents

Alanna Burnett	II	University of Illinois
Nathan Georgette	II	Harvard University
Sanjay Jumani	II	Rutgers University
Bennett Waxse	II	University of Texas, Southwestern

## Second Year Residents

Daniela Anderson	I	University of Utah
Omar Jamil	I	University of Illinois
Ira Kraft	I	University of Utah
Natalie Munger	I	University of Washington

## First Year Residents

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
Maya Faison	I	University of Michigan
Collin Hanson	I	Rosalind Franklin University
Sarah Monick	I	University of Illinois
Rebecca Stern	I	Dartmouth University

## Dermatology Residents

## Third Year Residents

Clifford Hsieh	IV	University of Chicago
Emily Lund	IV	Columbia University
Jared Wishik	IV	University of Florida

## Second Year Residents

Julia Dai	III	University of Pennsylvania
Arjun Dayal	III	University of Chicago
Esther Kim	III	University of Central Florida

## First Year Residents

Margaret Boyle	II	Saint Louis University
Margaret Bruns (nee Dennin)	II	University of Chicago
Erin Dodd	II	University of Minnesota
Erin Ibler	II	Saint Louis University

## Emergency Medicine Residents

## Third Year Residents

Leslie Anderson	III	University of Rochester
Brian Bush	III	University of Pittsburgh
Adriana Coleska	III	University of Michigan
Emily DeDonato	III	Ohio State University
Annette Dekker	III	Northwestern University
Amelia Derstine	III	University of Michigan
Christopher Harris	III	University of Virginia
Matthew Heuton	III	Harvard University
Courtney Hutchins	III	Rush Medical College
Leigh Jackson	III	Meharry Medical College
Brendan McEvoy	III	University of Michigan
Thomas O'Brien	III	Rutgers University
Kristina Pfeiffer	III	New York University
Saaduddin Siddiqui	III	University of Chicago
Joseph Tarran	III	University of Chicago
Eric Wang	III	Georgetown University
William Weber	III	Northwestern University

## Second Year Residents

Dany Accilien	II	Florida International University
Yom Alemante	II	University of Southern California
Ben Arevalo	II	Harvard University
Danielle De Freitas	II	Meharry Medical College
Casey Distaso	II	Georgetown University



## Emergency Medicine Residents

Second Year Residents (cont.)

NAME	PGY LEVEL	MEDICAL SCHOOL ATTENDED
Jasmine Ginn	II	Howard University
Deirdre Goode	II	University of Virginia
Dexter Graves	II	Drexel University
Samantha Hay	II	Virginia Commonwealth University
Mike Hernandez	II	Columbia University
Michael McCartin	II	University of Chicago
Jonathan Oskvarek	II	University of Chicago
Daven Patel	II	University of Illinois, Chicago
Arthur Pope	II	Loyola University
Regina Royan	II	University of Michigan
Semhar Tesfai	II	Columbia University

First Year Residents

Robert Alleyne	I	Emory University
Kate Anderson	I	University of Vermont
Ravi Chacko	I	Washington University
Abigail Clarkson-During	I	University of Rochester
Ryan DesCamp	I	Indiana University
Arian Frost	I	University of Wisconsin
Mohamed Hamouda	I	Northwestern University
Kristin Lewis	I	University of California, San Francisco
Glenn McFadden	I	University of Chicago
Allyson Peterson	I	University of Washington
Danny Semaan	I	University of Michigan
Curren Smith	I	University of Chicago
Miya Smith	I	Meharry Medical College
Tunlewa Soyinka	I	Duke University
Jamie Staudt	I	University of Chicago
Emily Wilkins	I	University of Connecticut

FELLOWS:

Cardiology  
Cardiovascular Diseases

NAME	PGY LEVEL	MEDICAL SCHOOL	RESIDENCY
Rajeev Anchan	VI	University of Nebraska	University of Nebraska

NAME	PGY LEVEL	MEDICAL SCHOOL	RESIDENCY
Emeka Anyanwu	VI	Case Western Reserve University	University of Chicago
Ilya Karagodin	VI	Northwestern University	Medical College of Wisconsin
Isla McClelland	VI	Georgetown University	Medstar Georgetown University
Andrew Oehler	VI	Indiana University	Oregon Health & Science University
Dong Bo Yu	VI	University of Texas, Southwestern	University of Chicago
Mark Belkin	V	Rush Medical College	University of Chicago
Mark Dela Cruz	V	University of California, San Francisco	University of California San Francisco
Abdulrahman Dia	V	University of Illinois	University of Chicago
Michael Henry	V	Loyola University	University of Michigan
Swati Rao	V	University of Utah	Thomas Jefferson University
Abdulrahman Abutaleb	IV	Northwestern University	Northwestern University
Nikhil Singh	IV	Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo	University of Southern California
Linda Lee	IV	Rush Medical College	University of Chicago
Eisha Wali	IV	Case Western Reserve University	University of Chicago
Rishi Pandya	IV	University of Chicago	New York University
Ian Hackett	IV	Saint Louis University	University of Utah

## Interventional Cardiology

Paul Larsen	VII	Tulane University	University of California
Joseph Venturini	VII	Loyola University	University of Chicago

## Clinical Cardiac Electrophysiology

Pablo Salazar	VII	Concepcion University Medical School	Pontiac Catholic University of Chile
Andrew Chen	VII	Saint Louis University	University of Nevada
Arun Kannan	VII	Kilpauk Medical College	Canton Medical Education Foundation
Zenith Jameria	VII	Indiana University	University of Cincinnati

## Advanced Heart Failure

Heddy Luise Holzhauser	VII	International Program	Albert Einstein College of Medicine
Natasha Mehta	VII	St. George's University	Hahnemann University Hospital
Cardiac Imaging			
Hena Patel	VII	Wayne State University	Rush University Medical Center

## Dermatology

Anh Khoa Pham	V	Dartmouth University	Dartmouth-Hitchcock Medical Center
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## Emergency Medicine

Hashim Q. Zaidi	V	Baylor University	Northwestern University
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## Endocrinology, Diabetes and Metabolism (Adult)

Isabel Casimiro	VI	University of Washington	University of Chicago
Olha Duchon	V	Bukovinian State Medical University (Ukraine)	Aurora Healthcare
Matthew Ettleson	V	Northwestern University	University of Michigan
Monika Darji	V	Chicago Medical School	University of Louisville
Thaer Idrees	V	University of Damascus Faculty of Medicine	Presence Saint Joseph Hospital, Chicago

## Endocrinology, Diabetes and Metabolism (Pediatrics)

NAME	PGY LEVEL	MEDICAL SCHOOL	RESIDENCY
Tara Rajiyah	VII	Royal College of Surgeons, Ireland	Newark Beth Israel Medical Center, New Jersey
Mary McCauley	VI	University of Illinois	Lutheran General Hospital
Maria Salguero Bermonth	V	Universidad de Antioquia Facultad de Medicina, Colombia	Harvard University
Sarah Fadel Shaaban	IV	Indiana University	Rush University Medical Center

## Gastroenterology, Hepatology and Nutrition

Ahmed Alansari	VIII	University of Alexandria	Metropolitan Hospital Center
Thoetchai Peeraphatdit	VIII	Mahidol University, Siriraj Hospital	Mayo Clinic
Shintaro Akiyama	VII	Hirosaki University	Tokyo Medical
Seth Shaffer	VII	University of Manitoba	Queens University
Thomas Cotter	V	NUI Galway School of Medicine, Ireland	Mayo Clinic
Thomas Couri	V	University of Chicago	University of Chicago
Sujaata Dwadasi	V	Indiana University	Emory University
Nina Gupta	V	University of Chicago	University of Chicago
Fares Ayoub	IV	University of Jordan	University of Florida
Noa Cleveland	IV	University of Illinois, Chicago	University of Chicago

Ye Eun Kwak	IV	Seoul National University College of Medicine	Yale University
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Sonika Malik	IV	Padmashree Dr. G.Y. Patil Medical College	Cleveland Clinic
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Charles Muller	IV	University of Chicago	University of Chicago
Parita Patel	IV	Case Western Reserve University	University of Chicago

Jennifer Wang	IV	University of Virginia	University of Virginia
Benjamin McDonald	III	University of Chicago	University of Chicago
Ariel Halper-Stromberg	III	Weill Cornell	University of Chicago
Matthew Odenwald	III	University of Chicago	University of Chicago

## Geriatrics and Palliative Medicine

Kimberly Beiting (Geriatrics)	IV	University of Illinois	Northwestern University
Saira Shervani (Geriatrics)	IV	University of Arkansas	Texas A&M
Jacob Walker (Geriatrics)	IV	Boston University	University of Colorado
Michael Sigman (Palliative)	VIII	George Washington University	Loyola University
Pramod Patel (Palliative)	V	Saba University School of Medicine	Loyola University

## Hematology/Oncology

Benjamin Derman	VII	Northwestern University	Rush University Medical Center
Brian Heiss	VI	University of Maryland	University of Pittsburgh
Michael Leukam	VI	Loyola University	University of Chicago
Marquita Nelson	VI	Emory University	Emory University
Ofaf Osman	VI	Weill Cornell	Johns Hopkins University
Daniel Olson	VI	Rush Medical College	Northwestern University
Sheila Padma Rajogopal	VI	Columbia University	University of Pittsburgh
Amy Wang	VI	University of Texas	University of Chicago
Frederick Howard	V	University of Michigan	Yale University
Anand Patel	V	University of Missouri	Northwestern University
Natalie Reizine	V	Loyola University	University of Chicago

NAME	PGY LEVEL	MEDICAL SCHOOL	RESIDENCY
Carolina Soto Chervin	V	University of Illinois	University of Chicago (NorthShore)
Meghan Steiner	V	University of South Carolina	Duke University
Garth Strohbehne	V	Yale University	University of Michigan
Sherin Rouhani	IV	University of Virginia	University of Chicago
Michael Breen	IV	Northwestern University	Yale University
Priyanka Chablani	IV	Ohio State University	New York University
Michael Hawking	IV	University of Michigan	University of Chicago
Joseph Heng	IV	Yale University	Yale University
Ajay Major	IV	Albany Medical	University of Colorado
Jovian Yu	IV	The Warren Alpert Medical School	Yale University

## General Internal Medicine/Medical Informatics

Michael Cui	IV	University of Chicago	University of Chicago
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## Hospital Medicine /Hospitalist Scholars

Pooja Gala	V	Weill Cornell	New York University
Vivian Lee	IV	Chicago Medical School	Case Western Reserve University
Maylyn Martinez	IV	Northwestern University	University of California Irvine
Justin Porter	IV	New York University	University of Chicago

## Infectious Diseases &amp; Global Health

Matthew Enriquez	VI	Thomas Jefferson University	Thomas Jefferson University
Cassandra Oehler	VI	University of Michigan	Oregon Health & Science University
Maggie Collison	V	Michigan State University	Boston University
Gregory Olson	V	University of Illinois, Peoria	Beth Israel Deaconess
Christopher Frohne	IV	University of Virginia	University of Chicago
Christopher Lehmann	IV	Indiana University	Indiana University

## Nephrology

Samantha Gunning	V	Georgetown University	University of Chicago
Ryann Hyder	V	University of Missouri	University of Texas, Houston
Nevin Murthy	V	Chicago Medical School	University of Louisville
Javeria Syed	V	Aga Khan University	Dow Medical College
Abhishek Pulla	IV	St. George's University	Florida Atlantic University
Anju Mohan	IV	Malankara Orthodox Syrian Church Medical College	University of Texas, Houston

Felipe Fernandez del Castillo	IV	University of Massachusetts	University of Chicago
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Elzbieta Stob	IV	Creighton University	University of Chicago
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## Pulmonary/Critical Care

Sivasubramaniam (Siva) Bhavani	VII	University of Texas, Galveston	Baylor University
Lucas Kimmig	VII	University of Freiburg	University of Pennsylvania
Julie Lin	VII	University of Texas, Southwestern	University of Texas, Southwestern
Xuan (Susan) Han	VI	University of Chicago	University of Chicago
Cathryn Lee	VI	Emory University	University of Chicago
William Dwight Miller	VI	University of Virginia	University of California, Los Angeles
Erica MacKenzie	VI	University of Chicago	University of Chicago
Julie Neborak	V	University of Minnesota	University of Chicago
Steven Pearson	V	University of Illinois, Chicago	University of Chicago



**Pulmonary/Critical Care (Cont.)**

NAME	PGY LEVEL	MEDICAL SCHOOL	RESIDENCY
Danielle Stahlbaum	V	Case Western Reserve University	University of Chicago
Matthew Stutz	VI	University of Chicago	University of California, Los Angeles
Sarah Gray	IV	University of Michigan	University of Chicago
Obada Shamaa	IV	Ohio State University	University of Chicago
Rachel Strykowski	IV	University of Minnesota	Boston University

**Sleep Medicine**

Bimaje Akpa	VII	University of Nigeria	University of Tennessee, Knoxville
Reeti Greenwald	VI	Chicago Medical School	University of Chicago
Jeremy Wearn	IV	Oregon Health Sciences University	Tulane University

**Interventional Pulmonology**

Abhinav Agrawal	VII	Government Medical College, Kolhapur, India	Zucker School of Medicine at Hofstra/Northwell
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**Rheumatology**

Patrick Onkka	V	Indiana University	Rush University Medical Center
Emily Kitchin	V	Indiana University	Medical College of Wisconsin
Marco Lopez-Velazquez	IV	Universidad Nacional Autonoma de Mexico	Cleveland Clinic
Laarni Quimson	IV	PA - Lake Erie College of Osteopathic Medicine	University of Chicago (NorthShore)

**FY19 RESIDENT AND FELLOW PROGRAM GRADUATES****Internal Medicine**

NAME	POSITION	INSTITUTION
Nina Arhin	Oncology Fellow	Vanderbilt University
Rene Bermea, Jr	Pulmonary and Critical Care Fellow	Massachusetts General Hospital
Brittany Bindon	Nocturnist	Northwestern University
Keely Browning	Hospitalist	Columbia St. Mary's Hospital
Kirk Cahill	Chief Resident	University of Chicago
Mike Cheng	Clinician Educator Fellow	University of California, San Francisco
Noura Choudhury	Oncology Fellow	Memorial Sloan Kettering
Anthony de la Pena	Hospitalist	University of Chicago
Sarah Feenstra	Clinical Informatics Fellow	University of Chicago
Christopher Fernandes	Chief Resident	Mercy Hospital

NAME	POSITION	INSTITUTION
Felipe Fernandez del Castillo	Nephrology Fellow	University of Chicago
Christopher Frohne	Infectious Disease Fellow	University of Chicago
Amulya Gampa	Cardiology Fellow	Washington University
Raffi Hagopian	Cardiology Fellow	Weill Cornell
Michael Hawking	Oncology Fellow	University of Chicago
Jennifer Houpy	Chief Resident	University of Chicago
Anupama Joseph	Cardiology Fellow	University of Wisconsin
Joshua Katz	Chief Resident	University of Chicago
Kendall Kling	Infectious Disease Fellow	Northwestern University
Grace Koo	Chief Resident	MacNeal Hospital
Shawn Kothari	Oncology Fellow	University of Pennsylvania
Ernesto Llano	Gastroenterology Fellow	University of Texas, Southwestern
Alexandru Marginean	Cardiology Fellow	Loyola University
Daniel Meza	Pulmonary and Critical Care Fellow	Northwestern University
Elizabeth Munroe	Chief Resident	University of Chicago
Justin Porter	Hospitalist Scholar	University of Chicago
Elzbieta Stob	Nephrology Fellow	University of Chicago
Julia Sun	Rheumatology Fellow	Northwestern University
Eric Swei	Gastroenterology Fellow	University of Colorado
Natalie Tapaskar	Chief Resident	MacNeal Hospital
Adam Vohra	Cardiology Fellow	Weill Cornell
Thomas Wagner	Gastroenterology Fellow	Medical College of Wisconsin

**Medicine-Pediatrics**

Zainab Abdul-Rahim	Primary Care	Chicago
Rebecca Chohlas-Wood	Primary Care	JWCH Institute ,Los Angeles Ca
Thomas Couri	Hepatology Fellow	University of Chicago
Robert Sanchez	Chief Resident - Pediatrics	University of Chicago

**Dermatology**

Stephanie Kazantsev	Private Practice	Beacon Medical Group Dermatology (IN)
Kathleen Kelley	Private Practice	Premier Dermatology,Naperville,IL
Larry Napolitano	Private Practice	Piedmont Plastic Surgery and Dermatology (NC)
Dena Elkeeb	TBD	TBD

**Emergency Medicine**

Zakaria Abdulnabi	Attending Physician	Carle Foundation Hospital, Urbana, IL
Patrick Ardron-Hudson	Staff Physician	Peace Health Riverbend Hospital, Eugene, OR
Maureen Canellas	EM Admin Fellow	University of Massachusetts
Mark Chottiner	Ultrasound Fellow	Cook County Health and Hospitals Systems
Dustin Harris	Sports Medicine Fellow	Stanford O'Conner Hospital; San Jose, CA
Andrew Hogan	EMS Fellow	University of Cincinnati
Michelle Hughes	Simulation Fellow	Rush University Medical Center
Eric Keast	Attending Physician	NorthShore University HealthSystem
Jason Kopec	Attending Physician	Carle Foundation Hospital, Urbana, IL

NAME	POSITION	INSTITUTION
Hani Kuttab	Ultrasound Fellow	University of Wisconsin
Zayir Malik	Medical Education Fellow	University of Chicago
Abdullah Pratt	Assistant Professor of Medicine	University of Chicago
Kevin Quirke	Assistant Professor of Medicine	Carle Foundation Hospital, Urbana, IL
Charlotte Roy	International EM Fellow	Columbia University
Brian Strickland	Wilderness Medicine Fellow	Massachusetts General Hospital
Garth Walker	Staff Physician	Jesse Brown VA Medical Center; Chicago, IL

**Cardiology**

Lane Benes	Cardiologist/Lipidologist	Evergreen Hospital
Tharian Cherian	Advanced Clinical Cardiac Electrophysiology Fellow	University of Pennsylvania
Heddy Luise Holzhauser	Advanced Heart Failure & Transplant Cardiology Fellow	University of Chicago
Paul Larsen	Advanced Interventional Cardiology Fellow	University of Chicago
Andrew Putnam	Non-Invasive Cardiologist	Porter Regional Hospital
Joseph Venturini	Advanced Interventional Cardiology Fellow	University of Chicago
Kalie Kebed	Non-Invasive Cardiologist	United Heart
Nina Rashedi	Cardiac Imaging Faculty	Mayo Clinic
Imo Ebong	Heart Failure Fellow	University of California, Davis
Nikhil Narang	Transplant Cardiologist	Mid America Advocate Christ/ Univ of Illinois Heart Institute
Chris Jones	Electrophysiologist	Lakeland Health, Florida
Rohan Kalathiya	Assistant Professor of Medicine	University of Chicago

**Endocrinology, Diabetes & Metabolism**

Laura Dickens	Assistant Professor of Medicine	University of Chicago
Sonaina Imtiaz	Assistant Professor	South Illinois University
Sikarin Upala	Attending Endocrinologist	Crossroads Community Hospital

**Pediatric Endocrinology, Diabetes & Metabolism**

Harini Kolluri	Pediatric Endocrinologist	John H. Stroger Hospital
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**Gastroenterology, Hepatology & Nutrition**

Jacob Ollech	Faculty	Rabin Medical Center, Israel
Edward Villa	Attending Physician	University of Illinois,Chicago
Adjoa Anyane-Yebo	Commonwealth Fund Fellow	Harvard University
Amanda Israel	Clinical Associate	North York General Hospital, Toronto Canada
Thomas Lu	Instructor	University of Chicago
Bianca Chang	Faculty	Cedars-Sinai Medical Center, Los Angeles, CA
Matthew Stier	Faculty	Rockford Gastroenterology Associates
Yunwei Wang	Advanced Gastroenterology Fellow	University of Chicago
Matthew Berger	GI Fellowship	University of Rochester

**Geriatrics and Palliative Medicine**

Vania Leung (Geriatrics)	Primary Care Physician	University of Illinois,Chicago
Allison Thoburn (Geriatrics)	Physician	Private Practice
Katelyn R. Good (Palliative)	Palliative Care Physician	Alaska Medical Group

NAME	POSITION	INSTITUTION
Gina Piscitello (Palliative)	Attending Physician	Rush University Medical Center
Saud A. Siddiqui (Palliative)	Palliative Care Attending	DuPage Medical Group Cancer Center
Arpita Desai	Clinical Instructor	University of California, San Francisco
Anu Neerukonda	Clinical Associate	University of Chicago
Andrew Hantel	Instructor	Dana Farber Cancer Institute
Michael Jelinek	Assistant Professor of Medicine	Rush University Medical Center
Smita Joshi	Assistant Attending Physician	Memorial Sloan Kettering
Joseph Wynne	Instructor	University of Chicago
Jonathan Trujillo	Advance Research Fellow	University of Chicago

**Hospital Medicine /Hospitalist Scholars**

Ali Thaver	Primary Care Physician/Administrator; Instructor	Jai Medical System, Maryland; Johns Hopkins University
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**Infectious Diseases and Global Health**

Margaret Newman McCort	Attending Physician	Montefiore Medical Center, Bronx, NY
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**Nephrology**

Saurabh Chawla	Private Practice	Northwest Indiana Nephrology P.C.
Sai Prasad Gadapa	Attending Physician	Mt. Sinai Hospital/Holy Family Medical Center
Victoria Vo	Private Practice	Arizona Kidney Disease and Hypertension Center

**Pulmonary/Critical Care**

James Katsis	Interventional Pulmonology Fellow	Vanderbilt University
Karen Dugan	Attending Physician	Kaiser Permanente, Portland,OR
Heng Duong	Attending Physician	Santa Clara Valley Medical Center
William Parker	Instructor	University of Chicago
Juan Rojas	Instructor	University of Chicago

**Sleep Medicine**

Abigail Doyle	Attending Physician	Western Washington Medical Group
Julie Neborak	Pulmonary and Critical Care Fellow	University of Chicago
Syema Sheikh	Attending Physician	Northwest Neurology

**Interventional Pulmonology**

Udit Chaddha	Assistant Professor of Medicine	Mt Sinai Medical Center , NY
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**Rheumatology**

Pankti Reid	Assistant Professor of Medicine	University of Chicago
Iazsmin Ventura	Assistant Professor of Medicine	University of Chicago
Veena Patel	Assistant Professor of Medicine	University of Texas
Josna Haritha	Assistant Professor of Medicine	Northwest Rheumatology Specialists



## SELECT HIGH IMPACT PUBLICATIONS

Innovation and discovery abound in the Department of Medicine. Over the past year, Medicine investigators led or participated in many collaborative studies and continued to translate basic research to clinical practice with multiple seminal discoveries, publishing over 1600 impactful papers with dozens in high profile journals.

Below is a sampling of some recent high impact papers.

### Annals of Internal Medicine

1. Rajkumar A; Hardt M; Howell MD; Corrado G; **Chin MH**. Ensuring Fairness in Machine Learning to Advance Health Equity. *Annals of Internal Medicine* 169(12),2018
2. Cassese T; Sharkey MS; **Pincavage AT**; Schwanz K; **Farnan JM**. Avoiding Pitfalls While Implementing New Guidelines on Student Documentation. *Annals of Internal Medicine* 170(3),2019
3. **Saunders MR**; Turner BJ. Unequal Pay for Equal Work: Where Are We Now? *Annals of Internal Medicine* 169(9),2018

### Cell

1. Mayassi T; Ladell K; Gudjonson H; McLaren JE; Shaw DG; Tran MT; Rokicka JJ,....**Semrad CE**; Guandalini S; Dinner AR; **Kupfer SS**; Reid HH; **Barreiro LB**; Rossjohn J; Price DA; **Jabri B**. Chronic Inflammation Permanently Reshapes Tissue-Resident Immunity in Celiac Disease. *Cell* 176(5),2019
2. **Liu X**; **Li YI**; Pritchard JK. Trans Effects on Gene Expression Can Drive Omnigenic Inheritance. *Cell* 177(4),2019
3. Lee JS; Kibbe WA; **Grossman RL**. Data Harmonization for a Molecularly Driven Health System. *Cell* 174(5),2018

### Journal of the American Medical Association (JAMA)

1. Feld L; Glick LR; **Cifu AS**. Diagnosis and Management of Crohn's Disease. *JAMA* 321(18),2019
2. Gupta N; **Kupfer SS**; **Davis AM**. Colorectal Cancer Screening. *JAMA* 321(20),2019
3. **Polite BN**; Gluck AR; Brawley OW. Ensuring Equity and Justice in the Care and Outcomes of Patients with Cancer. *JAMA* 321(17),2019
4. Hamilton KW; **Cifu AS**. Diagnosis and Management of Infectious Diarrhea. *JAMA* 321(9),2019
5. **Alenghat FJ**; **Davis AM**. Management of Blood Cholesterol. *JAMA* 321(8),2019
6. Khanna S; Gupta A; **Cifu AS**. Treatment of Recurrent Clostridium difficile Infection-Reply. *JAMA* 321(5),2019
7. **Beaser AD**; **Cifu AS**. Management of Patients with Atrial Fibrillation. *JAMA* 321(11);,2019
8. Dia A; **Cifu AS**; **Shah AP**. Management of Patients with Severe Aortic Stenosis with Transcatheter Valve Replacement. *JAMA* 21(15),2019
9. **Dickens LT**; **Cifu AS**; **Cohen RN**. Diagnosis and Management of Thyroid Disease during Pregnancy and the Postpartum Period. *JAMA* 321(19),2019
10. **Arora VM**; Rousseau D; Schwitzer G. Why Bolstering Trust in Journalism Could Help Strengthen Trust in Medicine. *JAMA* 321(22),2019

11. **Beaser AD**; **Cifu AS**; **Nayak HM**. Primary Prevention of Sudden Cardiac Death. *JAMA* 322(2),2019
12. **Sengupta N**; **Cifu AS**. Management of Patients with Acute Lower Gastrointestinal Tract Bleeding. *JAMA* 320(1),2018
13. De T; Alarcon C; **Hernandez W**, et al. Association of Genetic Variants with Warfarin-Associated Bleeding Among Patients of African Descent. *JAMA* 320(16),2018
14. **Polonsky TS**; **Bakris GL**. Ambulatory Blood Pressure Monitoring. *JAMA* 320(17),2018
15. **Anderson IJ**; **Davis AM**. Incidental Pulmonary Nodules Detected on CT Images. *JAMA* 320(21),2018
16. **Tung EL**; **Davis AM**; **Laiteerapong N**. Guidelines on Glycemic Targets for Persons with Type 2 Diabetes-Reply. *JAMA* 320(18),2018
17. Dugan KC; **Hall JB**; **Patel BK**. High-Flow Nasal Oxygen-The Pendulum Continues to Swing in the Assessment of Critical Care Technology. *JAMA* 320(20),2018
18. **Paul S**; **Davis AM**. Diagnosis and Management of Nonalcoholic Liver Disease. *JAMA* 320(23),2018
19. Mikolajczyk AE; Yassan LJ; **Pillai AA**. A Patient with an Elevated a-Fetoprotein Level and Liver Masses. *JAMA* 321(1),2018
20. Ostacher MJ; **Cifu AS**. Management of Posttraumatic Stress Disorder. *JAMA* 321(2),2018
21. **Cifu AS**. Advice for a Student Starting Medical School. *JAMA* 320(8), 2018
22. Gupta A; **Cifu AS**; Khanna S. Diagnosis and Treatment of Clostridium difficile Infection. *JAMA* 320(10),2018

### Journal of Clinical Investigation

1. Jo S; Fonseca TL; Da Costa Bocco BM; Fernandes GW; McAninch EA; Bolin AP,.... **Bianco AC**. Type 2 deiodinase polymorphism causes ER stress and hypothyroidism in the brain. *Journal of Clinical Investigation* 129(1),2019
2. Neu KE; Guthmiller JJ; Huang M; La J; Vieira MC; Kim K,.... **Wilson PC**. Spec-seq unveils transcriptional subpopulations of antibody-secreting cells following influenza vaccination. *Journal of Clinical Investigation* 129(1),2019
3. Haliyur R; Tong X; Sanyoura M; Shrestha S; Lindner J; Saunders DC; Aramandla R,.... **Phillipson LH**, Stein RW; Brissova M; Powers AC. Human islets expressing HNF1A variant have defective beta cell transcriptional regulatory networks. *Journal of Clinical Investigation* 129(1),2019
4. Shastri A; Choudhary G; Teixeira M; Gordon-Mitchell S; Ramachandra N; Bernard L; Bhattacharyya S,.... **Wickrema A**,.... Verma AK. Antisense STAT3 inhibitor decreases viability of myelodysplastic and leukemic stem cells. *Journal of Clinical Investigation* 128(12),2018

### Lancet

1. Masa JF; **Mokhlesi B**; Benitez I; Gomez de Terreros FJ; Sanchez-Quiroga MA; Romero A; Caballero-Eraso C,....Corral J. Long-term clinical effectiveness of continuous positive airway pressure therapy versus non-invasive ventilation therapy in patients with obesity hypoventilation syndrome: a multicentre; open-label; randomised controlled trial. *Lancet* 93(10182),2019
2. Rini BI; Powles T; Atkins MB; Escudier B; McDermott DF; Suarez C; Bracarda S; **Stadler WM**,.... Motzer RJ. Atezolizumab plus bevacizumab versus sunitinib in patients with previously untreated metastatic renal cell carcinoma (IMmotion151): a multicentre; open-label; phase 3; randomised controlled trial. *Lancet* 393(10189),2019

### Nature

1. Flannick J; Mercader JM; Fuchsberger C; Udler MS; Mahajan A; Wessel J; Teslovich TM,.... **Bell GI**,....Boehne M. Exome sequencing of 20;791Å cases of type 2 diabetes and 24;440Å controls. *Nature* 570(7759),2019

### Nature Communications

1. Schwartz MH; Wang H; Pan JN; Clark WC; Cui S; Eckwahl MJ; Pan DW,.... **Chang EB**; Pan T; **Eren AM**. Microbiome characterization by high-throughput transfer RNA sequencing and modification analysis. *Nature Communications* 9(1), 2018

### Nature Genetics

1. Wainberg M; Sinnott-Armstrong N; Mancuso N; Barbeira AN; Knowles DA; Golan D; Ermel R,.... **Im HK**. Pasaniuc B; Rivas MA; Kundaje A . Opportunities and challenges for transcriptome-wide association studies. *Nature Genetics* 51(4),2019
2. Huckins LM; Dobbyn A; Ruderfer DM; Hoffman G; Wang W; Pardinas AF; Rajagopal VM,.... **Im HK**; Sklar P; Stahl EA. Gene expression imputation across multiple brain regions provides insights into schizophrenia risk. *Nature Genetics* (4),2019
3. Gu Z; Churchman ML; Roberts KG; Moore I; Zhou X; Nakitandwe J; Hagiwara K,.... **Stock W**,.... Mullighan CG . PAX5-driven subtypes of B-progenitor acute lymphoblastic leukemia. *Nature Genetics* 51(2),2019
4. Sherman RM; Forman J; Antonescu V; Puiu D; Daya M; Rafaels N; Boorgula MP, ... Olopade CO; **Olopade O**; Oliveira RR; Ober C; **Nicolae DL**,.... Salzberg SL. Assembly of a pan-genome from deep sequencing of 910 humans of African descent. *Nature Genetics* 51(1),2019; Author Correction 51(2),2019
5. Waage J; Standl M; Curtin JA; Jessen LE; Thorsen J; Tian C; Schoettler N,.... **Nicolae DL**,.... Bannelykke K . Genome-wide association and HLA fine-mapping studies identify risk loci and genetic pathways underlying allergic rhinitis. *Nature Genetics* (8),2018 ;Author Correction (9),2018

### Nature Immunology

1. **Liarski VM**; Sibley A; van Panhuys N; Ai J; Chang A; Kennedy D; Merolle M; Germain RN; Giger ML; **Clark MR**. Quantifying in situ adaptive immune cell cognate interactions in humans. *Nature Immunology* 20(4),2019
2. Owen DL; Mahmud SA; Sjaastad LE; Williams JB; Spanier JA; Simeonov DR; Ruscher,.... **Alegre ML**, et al. Thymic regulatory T cells arise via two distinct developmental programs. *Nature Immunology* 20(2),2019

3. Emmanuel AO; Arnovitz S; Haghi L; Mathur PS; Mondal S; Quandt J; Okoreeh MK,.... **Gounari F**. TCF-1 and HEB cooperate to establish the epigenetic and transcription profiles of CD4 thymocytes. *Nature Immunology* 19(12),2018
4. Kennedy DE; **Clark MR**. PI3Kd: Too much of a good thing. *Nature Immunology* 19(9),2018

### Nature Medicine

1. Shan Y; Segre JA; **Chang EB**. Responsible stewardship for communicating microbiome research to the press and public. *Nature Medicine* (6),2019
2. Kather JN; **Pearson AT**, et al. Deep learning can predict microsatellite instability directly from histology in gastrointestinal cancer. *Nature Medicine* (7),2019

### New England Journal of Medicine

1. McDermott DH; Pastrana DV; Calvo KR; Pittaluga S; Velez D; Cho E; Liu Q,.... **Landon EM**, Silva SL; Buck CB; Murphy PM. Plerixafor for the Treatment of WHIM Syndrome. *New England Journal of Medicine* 380(2),2019
2. **Sarne DH**. Levothyroxine in Women with Thyroid Peroxidase Antibodies before Conception. *New England Journal of Medicine* 381(2),2019
3. Yu D; **Blair JEA**. A STEMI Mimic. *New England Journal of Medicine* 380(22),2019
4. Lipska KJ; **Laiteerapong N**. Lack of Glycemic Legacy Effects in the Veterans Affairs Diabetes Trial. *New England Journal of Medicine* (23),2019
5. Golan T; Hammel P; Reni M; Van Cutsem E; Macarulla T; Hall MJ; Park JO,.... **Kindler HL**. Maintenance Olaparib for Germline BRCA-Mutated Metastatic Pancreatic Cancer. *New England Journal of Medicine* 381(4),2019
6. Advani R; Flinn I; Popplewell L; Forero A; Bartlett NL; Ghosh N; **Kline J**,.... **Smith SM**. CD47 Blockade by Hu5F9-G4 and Rituximab in Non-Hodgkin's Lymphoma. *New England Journal of Medicine* 379(18),2018
7. Woyach JA; Ruppert AS; Heerema NA; Zhao W; Booth AM; Ding W; Bartlett NL,.... **Larson RA**,.... Byrd JC . Ibrutinib Regimens versus Chemoimmunotherapy in Older Patients with Untreated CLL. *New England Journal of Medicine* 379(26),2018
8. Schuster SJ; **Bishop MR**; et al. Tisagenlecleucel in Adult Relapsed or Refractory Diffuse Large B-Cell Lymphoma. *New England Journal of Medicine* 380(1),2018
9. **Kindler HL**. A Glimmer of Hope for Pancreatic Cancer. *New England Journal of Medicine* 379(25),2018

### Science

1. **Alegre ML**. B cells; CMV; and stem cell transplant. *Science* 363(6424),2019
2. Strober BJ; Elorbany R; Rhodes K; Krishnan N; Tayeb K; Battle A; **Gilad Y**. Dynamic genetic regulation of gene expression during cellular differentiation. *Science* 364(6447),2019



# COMMITTEE HIGHLIGHTS

## WOMEN'S COMMITTEE

The Department of Medicine's Women's Committee serves as an important mechanism for networking, mentorship, professional development and advocacy for our female faculty. With leadership from Julie Oyler, MD, the Committee is comprised of women from multiple sections within the Department, all of whom are amazing leaders, scientists, clinicians and educators in their own right.

### The Women's Committee enjoyed several successes in FY19:

- Published two issues of the "Women at the Forefront" newsletter, highlighting the accomplishments of women faculty and trainees
- Conducted a workshop on "Women and Negotiation," featuring Alice F. Stuhlmacher, PhD, Professor, Industrial-Organizational Psychology Chair, Department of Psychology at DePaul University
- Published an article, "Supporting New Physicians and New Parents: A Call to Create a Standard Parental Leave Policy for Residents" in *Academic Medicine* in July 2019
- Increased recognition for Department of Medicine women faculty by tracking and nominating women for internal and external awards.
- Hosted Eileen Reynolds, MD, the Vice Chair for Education and Chief of the Division of General Medicine, Beth Israel Deaconess Medical Center and Harvard Medical School as the 2019 Women's Committee's Grand Round Speaker who spoke on "Gender Equality in Academic Medicine: Where we are, and Charting a Path Forward."

### Other Diversity and Inclusion Committee highlights from FY19 include:

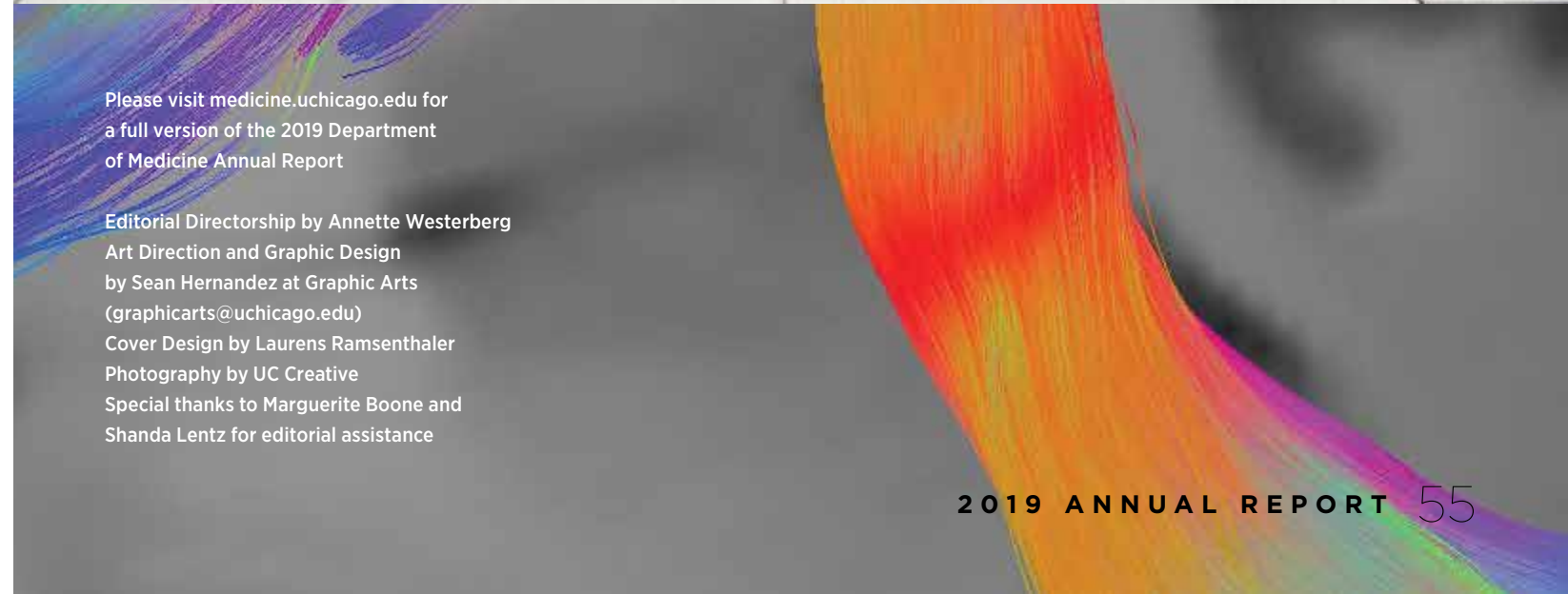
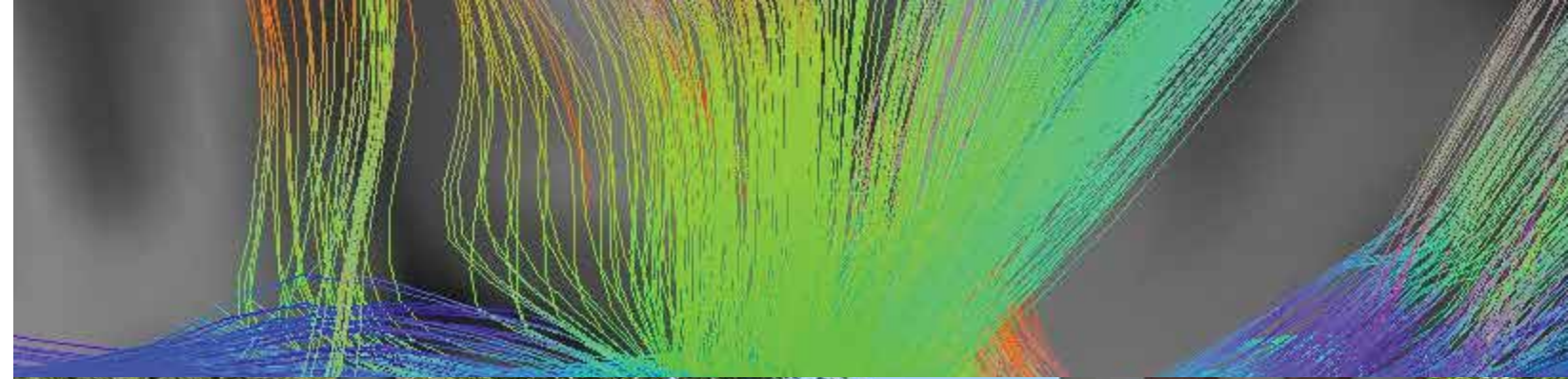
- The Committee delivered the first house-staff micro-climate survey, studying the inclusivity of the climate for residents who are under-represented in medicine (UIM)
- Delivered Medicine Grand Rounds entitled "Intersectionality: Understanding Integrated identities of LGBTQ People of Color Impacting Care", led by Marshall H. Chin MD, Stephanie Bi MS2, Susana Howard MS2, Monica Vela, MD, and Donald Bell
- Kamala Cotts MD – Appointed as liaison to the BSD Diversity and Inclusion Committee; named as the recipient of the 2019 DOM Diversity and Inclusion Award and the 2019 Midwest SGIM Advocacy Award.
- Monica Vela, MD – Recipient of the 2019 Phil De Chavez LMSA National Mentor of the Year Award and the 2019 University of Chicago Diversity Leadership Award
- Edwin K. McDonald IV, MD – Delivered the Summer Bowman Society Lecture at the University of Chicago Pritzker School of Medicine
- Monica Peek, MD, MPH – Honored with the 2018 Schweitzer Leadership Award from the Health & Medicine Policy Research Group, in recognition of her efforts to mitigate the social determinants of health, and whose service has influenced and inspired others.

## DIVERSITY AND INCLUSION COMMITTEE

The Department of Medicine actively promotes diversity, community-based research, and understanding (toward eliminating) health care disparities. Led by Monica Vela, MD, and co-chair, Milda Saunders, MD, the goal of the Diversity and Inclusion Committee is to build upon the long tradition of excellence in the fields of clinical care, research and education by working to improve diversity among all programs in the Department.

In FY19 the Department recruited a diverse housestaff to its residency programs with the intern class of the internal medicine residency (20%) and the emergency medicine residency (33%) programs comprised of under-represented minorities. The Committee also shepherded the Housestaff Diversity Committee in its strides to engage in community service events as well as engaging in recruitment and activities to promote an inclusive climate among residents of color.

The Diversity and Inclusion Committee serves to focus and promote activities that improve recruitment, retention, scholarship, leadership, and mentorship of qualified minority students, housestaff and faculty in an environment rich with cultural awareness, and sensitivity. In FY19, the Department had a commanding presence at the Annual Medical Education Conference of the Student National Medical Association (SNMA) in Philadelphia, the national Latino Medical Student Association (LMSA) conference held in Lubbock, Texas and the Medical Organization for Latino Advancement (MOLA) in Chicago.



Please visit [medicine.uchicago.edu](http://medicine.uchicago.edu) for a full version of the 2019 Department of Medicine Annual Report

Editorial Directorship by Annette Westerberg  
 Art Direction and Graphic Design by Sean Hernandez at Graphic Arts ([graphicarts@uchicago.edu](mailto:graphicarts@uchicago.edu))  
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# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF CARDIOLOGY

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Liao, James K.	Mechanisms Underlying VascularAging	\$250,000	\$155,000
	Cardiovascular Sciences Training Grant	\$494,754	\$37,147
Polonsky, Tamar	Unacylated Ghrelin to Improve Functioning in PAD: The GIFT Trial	\$20,123	\$12,476
Wu, Rongxue	ARNT:A novel regulator of cardiac vascular endothelial barrier function in heart failure	\$254,022	\$157,493
<b>Total PHS Research</b>		<b>\$1,018,899</b>	<b>\$362,116</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Sladojevic, Nikola	RGS5 as a Novel Therapeutic Target for Ischemic Stroke (American Heart Association)	\$62,560	\$-
Tabit, Corey E.	Molecular Mechanisms of Non-Surgical Bleeding in Human Patients with Continuous-Flow Left Ventricular Assist Devices- (American Heart Association)	\$70,000	\$7,000
<b>Total State/Association/Foundation Grants</b>		<b>\$132,560</b>	<b>\$7,000</b>
<b>INDUSTRY GRANTS</b>			
Kim, Gene	Advanced Heart Failure and Transplant Cardiology Fellowship Program	\$36,364	\$3,636
	MCS Fellowship Funding Program AY2018/19	\$20,000	\$0
Lang, Roberto M.	Finding-based clinical context delivery (Philips)	\$33,351	\$6,649
Nayak, Hemal	EP Fellowship Training Program2018-2019 (Biotronik)	\$10,000	\$0
	Rhythm and Electrophysiology Fellowship Grant (Boston Sci)	\$15,000	\$0
	EP Fellowship Program 2018-2019 (BIOSENSEWB)	\$27,273	\$2,727
	Clinical Cardiac Electrophysiology Fellowship Program (St Jude)	\$36,364	\$3,636
Paul, Jonathan D.	Targeted Temperature Management in Cardiogenic Shock (Zoll)	\$34,916	\$6,983
Tung, Roderick	EP Fellowship Funding Program AY2018/19 (Medtronic)	\$30,000	\$0
	Comparison Of Omnipolar Multielectrode Grid Mapping With Standard Catheter Bipolar Configurations In An Ovine Infarction Model: Identification Of Optimal Thresholds And Deceleration Zones With Multiple Wavefronts (St. Jude)	\$48,452	\$19,381
<b>Total Clinical Trials Earnings</b>		<b>\$661,158</b>	<b>\$165,290</b>
<b>Total Industry Grants</b>		<b>\$952,878</b>	<b>\$208,302</b>

## SECTION OF CARDIOLOGY

Total Sponsored Research	FY 15	FY16	FY17	FY18	FY 19
Public Health Service	\$1,963,339	\$1,807,597	\$1,478,091	\$1,464,493	\$1,381,015
State/Association/Foundations	\$472,312	\$391,786	\$452,209	\$216,560	\$139,560
Industry Grants	\$1,356,465	\$1,668,923	\$2,000,440	\$1,664,011	\$1,161,180
<b>TOTAL</b>	<b>\$3,792,116</b>	<b>\$3,868,306</b>	<b>\$3,930,740</b>	<b>\$3,345,064</b>	<b>\$2,681,755</b>

## SECTION OF COMPUTATIONAL BIOMEDICINE AND BIOMEDICAL DATA SCIENCE

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Grossman, Robert	The Bionimbus Protected Data Cloud	\$46,382	\$26,901
	NASA GEO: EF5	\$54,810	\$33,981
	NIAID Data Ecosystem Framework	\$185,185	\$114,815
	NIAID Data Hub Pilot	\$333,334	\$206,666
	NHLBI Commons Pilot	\$479,396	\$297,226
	The AnVIL Data Ecosystem	\$605,247	\$375,253
	(IDIQ - TO 4)Developing and Operating a Data Commons Framework Services	\$1,052,669	\$652,654
	(IDIQ - TO 02) The Genomic Data Commons (GDC) - Phase 6	\$6,957,487	\$3,124,781
Melamed, Rachel	Using clinical data to identify FDA-approved drugs for cancer prevention and therapeutic repurposing	\$116,142	\$8,811
Rzhetsky, Andrey	2/2-Measuring translational dynamics and the proteome to identify potential brain biomarkers for psychiatric disease	\$299,962	\$173,978
	2/2-Discovery and validation of neuronal enhancers associated with the development of psychiatric disorders	\$767,951	\$183,746
	2/2-Discovery and validation of neuronal enhancers associated with the development of psychiatric disorders	\$810,904	\$195,552
<b>Total PHS Research</b>		<b>\$11,709,469</b>	<b>\$5,394,364</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Grossman, Robert	Cohen Veterans Bioscience Data Commons Grant Agreement (CVB)	\$737,100	\$110,565
<b>Total State/Association/Foundation Grants</b>		<b>\$737,100</b>	<b>\$110,565</b>
<b>INDUSTRY GRANTS</b>			
Grossman, Robert	AbbVie Partnership (AbbVie)	\$89,286	\$35,714
<b>Total Industry Grants</b>		<b>\$89,286</b>	<b>\$35,714</b>

## SECTION OF COMPUTATIONAL BIOMEDICINE AND BIOMEDICAL DATA SCIENCE

Total Sponsored Research	FY17	FY18	FY19
Public Health Service	\$2,017,868	\$7,579,107	\$17,103,833
State/Association/Foundations	\$926,586	\$895,645	\$847,665
Industry Grants	\$125,000	\$125,000	\$125,000
<b>TOTAL</b>	<b>\$3,069,454</b>	<b>\$8,599,752</b>	<b>\$18,076,498</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF DERMATOLOGY

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
He, Yu-Ying	Autophagy and GG-NER in UVB-induced skin cancer	\$225,001	\$130,499
	The mechanistic role of METTL14 in UVB-induced skin tumorigenesis	\$372,114	\$230,711
<b>Total PHS Research</b>		<b>\$597,115</b>	<b>\$361,210</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
<b>Total State/Association/Foundation Grants</b>		<b>\$-</b>	<b>\$-</b>
<b>INDUSTRY GRANTS</b>			
Clinical Trial Earnings		\$31,710	\$7,927
<b>Total Industry Grants</b>		<b>\$31,710</b>	<b>\$7,927</b>

SECTION OF DERMATOLOGY						
Total Sponsored Research	FY15	FY16	FY17	FY18	FY19	
Public Health Service	\$361,949	\$711,830	\$790,830	\$434,500	\$958,325	
State/Association/Foundations	\$305,000	\$190,000	\$84,000	\$6,350	\$-	
Industry Grants			\$-	\$29,994	\$39,637	
<b>TOTAL</b>	<b>\$666,949</b>	<b>\$901,830</b>	<b>\$874,830</b>	<b>\$470,844</b>	<b>\$997,962</b>	

## SECTION OF EMERGENCY MEDICINE

<b>PUBLIC HEALTH SERVICE</b>			
Garcia, Alfredo J	Neurocognitive Consequences of Intermittent Hypoxia	\$218,750	\$135,625
Padela, Aasim	Informing American Muslims about Living Donation [I AM a LD]	\$186,415	\$115,577
Prabhakar, Nanduri R.	Therapeutic Targeting of Carotid Body Chemoreflex for Sleep Disordered Breathing	\$1,709,426	\$151,316
	Integrative Consequences of Intermittent Hypoxia	\$1,728,438	\$806,000
Sharp, Willard W.	Pharmacological induced torpor/hypothermia as a novel therapy for improving post cardiac arrest resuscitation outcomes	\$250,000	\$145,000
Stanford, Kimberly	Third Coast Center for AIDS Research	\$31,270	\$19,387
<b>Total PHS Research</b>		<b>\$4,124,299</b>	<b>\$1,372,905</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Hogan, Teresita M.	Developing a National Collaborative to Improve Emergency Department Care of Older Adults (Hartford)	\$45,832	\$4,583
Padela, Aasim	Domesticating Genomics in the Gulf Region (DGG): The Missing Islamic Bioethical Discourse (QatarNat)	\$15,005	\$2,995
	Engaging Muslim Activists for Research on Community Health (E-MARCH) (PCORI)	\$106,094	\$34,642
	Conversations on Islam and the Human Sciences (TempletonR)	\$117,732	\$16,038
<b>Total State/Association/Foundation Grants</b>		<b>\$284,663</b>	<b>\$58,258</b>

SECTION OF EMERGENCY MEDICINE					
Total Sponsored Research	FY 15	FY 16	FY17	FY18	FY19
Public Health Service	\$3,797,030	\$3,696,644	\$4,568,855	\$4,757,431	\$5,497,204
State/Association/Foundations	\$234,682	\$261,822	\$253,270	\$386,412	\$342,921
Industry Grants	\$142,173	\$-	\$-	\$-	\$-
<b>TOTAL</b>	<b>\$4,173,885</b>	<b>\$3,958,466</b>	<b>\$4,822,125</b>	<b>\$5,143,843</b>	<b>\$5,840,125</b>

## SECTION OF ENDOCRINOLOGY, DIABETES & METABOLISM

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Bell, Graeme	Integrated Clinical and Basic Endocrinology Research	\$234,095	\$18,724
	Diabetes Research and Training Center	\$947,583	\$516,206
Bianco, Antonio	Thyroid-adrenergic synergism and adaptive thermogenesis	\$250,000	\$155,000
Brady, Matthew J.	Circadian Genes and Adipose Function: Impact of Chronotype, Obesity and Race	\$293,400	\$144,403
Dumitrescu, Alexandra M.	Selenoproteins in Arsenic-Induced Metabolic Dysfunction	\$13,008	\$8,065
	Proof of Extended Absorption of Liothyronine from PolyZincLiothyronine (PZL) in Humans	\$33,900	\$21,018
	Mouse Sbp2 deficiency models the multi-system syndrome of human SBP2 defects	\$225,000	\$125,489
Ehrmann, David A.	Q2/22 Diabetes Prevention Program Outcomes Study (DPPOS) Phase 3 - Research Project	\$266,773	\$154,728
Hara, Manami	Heterogeneity of the human pancreas	\$267,093	\$147,053
Phillipson, Louis	Pediatric Endocrinology Research Training	\$122,950	\$9,836
	Monogenic Diabetes: Next Generation Diagnosis, Treatment and Complications	\$332,280	\$192,721
	Center for Identification and Study of Individuals with Atypical Diabetes Mellitus	\$1,993,386	\$506,614
Naylor, Rochelle	Advancing Recognition and Personalized Genetic Medicine for MODY in a Multi-Ethnic US Population	\$173,200	\$13,856
Refetoff, Samuel	Thyroid Physiology Studies of Inherited Disorders	\$435,661	\$254,516
Van Cauter, Eve	Training Grant in Circadian and Sleep Research	\$95,244	\$6,340

<b>Total PHS Research</b>	<b>\$5,683,573</b>	<b>\$2,274,569</b>	
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Greeley, Siri Atma W.	Newborn Screening for Earlier Diagnosis and Treatment of Congenital Diabetes (Diabetes Research Foundation)	\$3,000	\$0
Phillipson, Louis	Analysis of the whole exome in subjects with extreme forms of type 1 diabetes (Helmsley Trust)	\$150,000	\$15,000
<b>Total State/Association/Foundation Grants</b>	<b>\$153,000</b>	<b>\$15,000</b>	
<b>INDUSTRY GRANTS</b>			
Bakris, George	Hypertension Fellowship Program - (RELYPSA)	\$50,100	\$0
<b>Total Clinical Trial Earnings</b>	<b>\$266,315</b>	<b>\$66,578</b>	
<b>Total Industry Grants</b>	<b>\$316,415</b>	<b>\$66,578</b>	

SECTION OF ENDOCRINOLOGY, DIABETES AND METABOLISM					
Total Sponsored Research	FY15	FY 16	FY17	FY18	FY19
Public Health Service	\$6,241,384	\$6,431,372	\$4,732,504	\$6,933,820	\$7,958,142
State/Association/Foundations	\$366,566	\$146,499	\$148,000	\$314,512	\$168,000
Industry Grants	\$1,022,397	\$1,222,825	\$553,960	\$701,583	\$382,993
<b>TOTAL</b>	<b>\$7,630,347</b>	<b>\$7,800,696</b>	<b>\$5,434,464</b>	<b>\$7,949,915</b>	<b>\$8,509,135</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF GASTROENTEROLOGY, HEPATOLOGY & NUTRITION

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Antonopoulos, Dionysios	Design of a Highly Multiplexed Targeted Sequencing Panel for the Detection and Characterization of Antimicrobial Resistance Determinants from Complex Metagenomic Samples	\$157,942	\$69,878
Bissonnette, Bruce	Sprouty: Putative Oncogene in Colorectal Cancer	\$18,122	\$11,236
	Development of 5hmC and 5mC biomarkers in cell-free circulating DNA for sensitive colon cancer detection and prognosis	\$409,839	\$187,982
Chang, Eugene B.	Mutualistic relationship between Hsp25/27 and gut microbes as a major and essential determinant of mucosal healing and microbial fitness following intestinal injury	\$352,737	\$218,697
	Conceptual and mechanistic insights into the development of diet-induced obesity through disruption of hepatic circadian rhythms by the gut microbiome	\$364,678	\$226,100
	Research Training in Digestive Health, Diseases, and Nutrition	\$412,058	\$32,965
	Exploring Paneth Cell Peptide YY (PYY), a unique anti-microbial peptide that maintains fungal commensalism, in the pathogenesis of ileal Crohn's Disease	\$477,917	\$177,221
	IBD and Mucosal Inflammation, Immunology, and Microbiology of the GI Tract	\$735,001	\$426,299
Gaines, Sara	The Role of the Intestinal Microbiome in Colorectal Cancer Recurrence following Surgical Resection	\$61,174	\$0
Harris, Katharine	Inter-kingdom communication between intestinal microbiota and mammalian host via cyclic dinucleotides	\$61,174	\$0
Jabri, Bana	Pharmacological Validation of Transglutaminase 2 as a Novel Target for Celiac Disease	\$118,040	\$68,463
	Role of Transglutaminase 2 in Celiac Sprue	\$225,108	\$139,567
	Innate and adaptive immunity in celiac disease	\$336,380	\$195,100
Kim, Karen	Center for Health Equity Research (CHER)	\$59,511	\$36,897
	ACCISIS-Chicago	\$500,000	\$310,000
	Cook County Colon Cancer Alliance to Reignite and Enhance Screening (Cook County CARES)	\$718,190	\$179,253
Kupfer, Sonia S.	Host-environment interactions in colorectal cancer disparities	\$130,500	\$80,910
	Colonic responses to vitamin D and aspirin in African- and European-Americans	\$228,750	\$141,825
Leone, Vanessa	Diurnal oscillations in gut microbes and host immunity in health and obesity	\$116,423	\$9,314
Li, Yanchun	Macrophage m6A mRNA Methylation in Sepsis	\$150,000	\$93,000
Pekow, Joel R.	IBD Gene Mapping by Population and Clinical Subsets	\$2,400	\$1,488
Rubin, David T.	Fecal Microbiome Transplant National Registry	\$2,829	\$1,754
<b>Total PHS Research</b>		<b>\$5,638,773</b>	<b>\$2,607,949</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Abadie, Valerie	Impact of B cell depletion on T-cell mediated immune responses and tissue destruction in Celiac Disease (Celiac Disease Foundation)	\$60,000	\$0
Chang, Eugene B.	Aberrant tissue responses and microbial triggers that promote the development of UC pouchitis: Gathering clues to understand human inflammatory bowel diseases (Helmsley Trust)	\$151,015	\$15,102
Chapman, Christopher Grant	Liquid Biopsy of the Portal Vein Using Endoscopic Ultrasound for Next Generation Sequencing of circulating tumor DNA for Therapeutic and Prognostic Stratification in Pancreatic Cancer (ASGE)	\$60,000	\$0
Eren, A Murat	ACE-Ecogenomics (Face Foundation)	\$7,000	\$0
Jabri, Bana	Microbial Host Interaction in IBD Patients with PSC (Helmsley Trust)	\$150,216	\$15,021
	Immuno-pharmacogenomics to understand and predict response to biologics in Crohn's disease (Helmsley Trust)	\$561,280	\$56,128
Meisel, Marlies	Impact of Interleukin 15 on immune homeostasis and the intestinal microbiota in the development of inflammatory bowel disease (Crohns & Colitis Foundation)	\$58,250	\$0
Messer, Jeannette S	The role of HMGB1 in the microbial pathogenesis of inflammatory bowel disease (AGARES)	\$30,000	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$1,077,761</b>	<b>\$86,251</b>

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>INDUSTRY GRANTS</b>			
Chang, Eugene B.	In vitro screening of Avpeptides (Avnovum)	\$6,250	\$2,500
	In vitro screening of Avpeptides (Avnovum)	\$18,750	\$7,500
	The University of Chicago Medicine Chicago PROMise Proposal to Takeda (Takeda )	\$368,698	\$147,479
Kennedy, Megan	2018-2019 Danone North America Gut Microbiome, Yogurt and Probiotics Fellowship Grant	\$25,000	\$0
Rubin, David T.	2019 Visiting Professorship in Inflammatory Bowel Disease (Celgene)	\$5,455	\$545
	2019 IBD Visiting Professorship (AbbVie)	\$9,091	\$909
	2019 Visiting Professorship in Inflammatory Bowel Disease (Pfizer)	\$9,091	\$909
	International Visiting Professorship in Inflammatory Bowel Disease 2019 (Jansen Bio)	\$14,236	\$1,424
	Advanced IBD Fellows Research Meeting 2019 (Jansen Bio)	\$27,273	\$2,727
	Advanced Practice Nurse and Physician Assistant IBD Immersion Program (AbbVie)	\$40,909	\$4,091
	2018-2019 Advanced IBD Fellowship (Jansen Bio)	\$85,234	\$8,523
	Center of Excellence for PREcisiOn Medicine in IBD "Chicago PROMise (Takeda )	\$286,078	\$114,365
Waxman, Irving	Facility Use Agreement (Boston Scientific)	\$3,613	\$1,405
<b>Total Clinical Trial Earnings</b>		<b>\$1,423,761</b>	<b>\$355,940</b>
<b>Total Industry Grants</b>		<b>\$2,323,439</b>	<b>\$648,317</b>

## SECTION OF GASTROENTEROLOGY, HEPATOLOGY & NUTRITION

Total Sponsored Research	FY15	FY16	FY17	FY18	FY19
Public Health Service	\$5,857,444	\$6,373,843	\$6,121,930	\$5,976,824	\$8,246,722
State/Association/Foundations	\$2,318,729	\$1,775,491	\$244,198	\$501,240	\$1,164,012
Industry Grants	\$2,721,045	\$913,065	\$2,510,196	\$2,105,380	\$2,971,756
<b>TOTAL</b>	<b>\$10,897,218</b>	<b>\$9,062,399</b>	<b>\$8,876,324</b>	<b>\$8,583,444</b>	<b>\$12,382,490</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF GENERAL INTERNAL MEDICINE

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Arora, Vineet	Mentoring Patient-Oriented Research: Sleep & Health During & After Hospital Stay	\$105,070	\$8,406
Baig, Arshiya A.	Implementing Diabetes Group Visits in Midwestern Community Health Centers to Improve Diabetes Outcomes among Disadvantaged Patients	\$204,268	\$123,027
Burnet, Deborah	LUCENT: Leadership for Urban Primary Care Education and Transformation	\$405,791	\$31,709
Chin, Marshall H.	Chicago Center for Diabetes Translation Research	\$246,840	\$143,167
Huang, Elbert	NSHAP W4: Contextual pathways of cognitive decline	\$149,579	\$92,739
	Research and Mentorship in Medical Decision Making in Diabetes	\$162,468	\$12,997
	NSHAP W4: Contextual pathways of cognitive decline	\$207,618	\$128,724
	Financial Analysis Research Agenda (FARA)	\$678,901	\$353,187
Laiteerapong, Neda	Patient Outcomes Reporting for Timely Assessments of Life with Depression: PORTAL-Depression	\$246,915	\$153,084
	Predicting and Reducing Future Health Disparities for U.S. Adults with Diabetes	\$296,616	\$105,169
	Predicting and Reducing Future Health Disparities for U.S. Adults with Diabetes	\$305,477	\$109,988
Liebovitz, David M	Improving Patient Reported Outcome Data for Research Through Seamless Integration of the PROMIS Toolkit into EHR Workflows	\$71,792	\$42,032
Miller, Doriane C.	Improving the screening and management of patients with serious mental illness in primary care settings	\$238,015	\$94,016
Press, Valerie G.	Bringing Respiratory Education for improved Adherence and Technique Home through E-interventions for Self-management (BREATHE) Program	\$50,000	\$31,000
<b>Total PHS Research</b>		<b>\$3,369,350</b>	<b>\$1,429,245</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Arora, Vineet	VISTA (Value, Improvement, Safety, and Team Advocates): Curriculum & Culture Change to Cultivate Physicians for the Future (AMA)	\$15,000	\$0
	The O.P.I.A.T.E Project (Portes Foundation)	\$35,000	\$0
	Evaluating and Sustaining IGNITE (Improving GME Nursing Interprofessional Team Experiences) to Promote Interprofessional Clinical Learning Environments (IPCLE) (Macy Foundation)	\$135,400	\$0
Chin, Marshall H.	Expert Consulting for the Disparities Portfolio (PCORI)	\$62,706	\$25,074
	Advancing Equity Through Aligning Medicaid Managed Care Plans, Providers, and States (RWJF)	\$1,014,564	\$91,854
Laiteerapong, Neda	Examining the U.S. cost-effectiveness of alternative glycemic treatment algorithms in the era of new medications (Diabetes Research Foundation)	\$125,455	\$12,545
Peek, Monica	Bridging the Gap National Program Office (Merck Foundation)	\$637,736	\$95,660
Pincavage, Amber	Evaluation of a Virtual Interactive Platform in Enhancing Diagnostic Reasoning and Improving Diagnostic Accuracy (Marcus Foundation)	\$15,909	\$1,591
Stern, Scott D. C.	Evaluation of interactive virtual technology in diagnostic reasoning and accuracy (Marcus Foundation)	\$36,594	\$3,659
	I-Human Deployment (Manipal U)	\$70,710	\$14,142
Volerman Beaser, Anna	A Randomized Clinical Trial Evaluating the Effectiveness of Virtual Teach-to-GoalTM Education versus Brief Intervention for Children with Severe Asthma (Chest Foundation)	\$30,000	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$2,179,074</b>	<b>\$244,525</b>
<b>INDUSTRY GRANTS</b>			
<b>Total Industry Grants</b>		<b>\$-</b>	<b>\$-</b>

## SECTION OF GENERAL INTERNAL MEDICINE

Total Sponsored Research	FY15	FY16	FY17	FY18	FY19
Public Health Service	\$3,245,309	\$3,189,214	\$1,940,689	\$2,607,296	\$4,798,595
State/Association/Foundation Grants	\$1,934,873	\$1,374,443	\$1,207,697	\$724,206	\$2,423,599
Industry Grants		\$81,997	\$840,992	\$718,957	\$-
<b>TOTAL</b>	<b>\$5,180,182</b>	<b>\$4,645,654</b>	<b>\$3,989,378</b>	<b>\$4,050,459</b>	<b>\$7,222,194</b>

## SECTION OF GENETIC MEDICINE

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Barreiro, Luis	Stress and the Genome: Testing the Impact of Social Effects on Gene Regulation	\$144,143	\$11,531
	Human genetics of TB resistance in HIV-infected persons	\$147,521	\$91,463
Basu, Anindita	Novel microfluidic platform to profile host-pathogen interaction under controlled infection and single cell resolution	\$150,000	\$68,057
Chen, Mengjie	Collaborative Research: Advanced statistical methods for single cell RNA sequencing studies	\$255,574	\$58,804
Gilad, Yoav	Characterizing and Understanding Variation in Gene Regulatory Mechanisms Within and Between Species'	\$42,236	\$26,186
	A National iPSC Cell Network with Deep Phenotyping for Translational Research	\$63,000	\$36,540
	Methods for analysis of regulatory variation in cellular differentiation	\$154,676	\$89,712
	Using single cell RNA-seq to study regulatory noise and robustness	\$332,877	\$206,384
	eQTL mapping in iPSC-derived differentiated cardiomyocytes	\$491,101	\$304,483
Im, Hae Kyung	Genomic and Transcriptomic Analysis of Breast and Ovarian Cancers	\$16,420	\$10,180
	Predicting the multi-omic impact of psychiatric GWAS associations	\$16,819	\$10,427
	Genetic and Epidemiological Predictors of Glucose Homeostasis Measures in Hispanics - Genetics of African American Type 2 Diabetes	\$25,500	\$15,810
	Genetics of African American Type 2 Diabetes	\$25,679	\$15,921
Li, Yang I.	Investigating the co-transcriptional impact of genetic variation on gene regulation and disease	\$290,000	\$179,800
Stranger, Barbara E.	Genomic Prediction of Doxorubicin-Induced Cardiotoxicity	\$15,362	\$9,524
	Production Center for Mapping Regulatory Regions of the Human Genome	\$239,032	\$138,638
	Center for Functional Validation and Evaluation of ENCODE Enhancer Regions	\$352,814	\$147,186
	Creating Comprehensive Maps of Worm and Fly Transcription Factor Binding Sites	\$471,458	\$292,303
	Genetic mechanisms underlying sexual dimorphism in cancer and response to therapy	\$488,716	\$165,253
<b>Total PHS Research</b>		<b>\$3,722,928</b>	<b>\$1,878,202</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Basu, Anindita	Single Cell Gene Expression Analysis of Matrix-Directed Mesenchymal Stem Cell Differentiation (BSF)	\$26,087	\$3,913
Li, Yang I.	Using Recurrent Aberrant mRNA isoforms for Early Cancer Detection (Cancer Research Foundation)	\$37,500	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$63,587</b>	<b>\$3,913</b>
<b>INDUSTRY GRANTS</b>			
Basu, Anindita	Unbiased expression profiling of cellular sub-populations using high-throughput droplet mRNA-seq for immunotherapy biomarker discovery in archival solid tumor samples (BM Squibb)	\$178,572	\$71,428
<b>Total Industry Grants</b>		<b>\$178,572</b>	<b>\$71,428</b>

## SECTION OF GENETIC MEDICINE\*

Total Sponsored Research	FY15	FY16	FY17	FY18	FY19
Public Health Service	\$7,067,316	\$20,488,400	\$1,441,126	\$4,535,700	\$5,601,130
State/Association/Foundation Grants		\$67,500		\$149,155	\$67,500
Industry Grants		\$125,000		\$-	\$250,000
<b>TOTAL</b>	<b>\$7,067,316</b>	<b>\$20,680,900</b>	<b>\$1,441,126</b>	<b>\$4,684,855</b>	<b>\$5,918,630</b>

\* FY15-16 includes Grossman and Rzhetsky.



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF GERIATRICS & PALLIATIVE MEDICINE

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED			
<b>PUBLIC HEALTH SERVICE</b>						
Huisingsh-Scheetz, Megan J.	Early Frailty Biomarkers: Patterns of Activity and Energy Expenditure	\$145,100	\$11,608			
Kostas, Tia	Primary Care Medication Management for Vulnerable Populations	\$184,813	\$14,785			
Levine, Stacie K.	Illinois AHEC Network Program	\$12,490	\$999			
Thompson, Katherine	South Side Healthy Aging Resource Experts (SHARE) Network	\$726,776	\$48,513			
<b>Total PHS Research</b>		<b>\$1,069,179</b>	<b>\$75,905</b>			
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>						
Levine, Stacie K.	Hospice and Palliative Medicine Fellowship Program (VITAS)	\$68,182	\$6,818			
	A Primary Palliative Care Education Program to Improve Access for Patients with Cancer – Phase III (Coleman Foundation)	\$112,995	\$0			
Thompson, Katherine	GWEP Small Networking Meeting (Hartford Foundation)	\$30,200	\$0			
<b>Total State/Association/Foundation Grants</b>		<b>\$211,377</b>	<b>\$6,818</b>			
<b>INDUSTRY GRANTS</b>						
<b>Total Industry Grants</b>		\$0	\$0			
		<b>\$-</b>	<b>\$-</b>			
<b>Total Sponsored Research</b>		<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>
Public Health Service		\$177,767	\$965,755	\$926,928	\$1,102,766	\$1,145,084
State/Association/Foundation Grants		\$418,360	\$371,767	\$174,221	\$189,495	\$218,195
Industry Grants		\$75,000	\$-	\$75,000	\$-	\$-
<b>TOTAL</b>		<b>\$596,127</b>	<b>\$1,412,522</b>	<b>\$1,101,149</b>	<b>\$1,367,261</b>	<b>\$1,363,279</b>

## SECTION OF HEMATOLOGY/ONCOLOGY

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Churpek, Jane	Defining the mechanisms by which BRCA1 maintains genomic stability in hematopoiesis	\$50,000	\$31,000
Conzen, Suzanne D.	NNMT regulation of m6A RNA modification in TNBC progression	\$130,978	\$75,254
	Identification of a prognostic and predictive glucocorticoid receptor signature for ovarian cancer	\$138,903	\$86,120
	Estrogen and glucocorticoid receptor crosstalk in ER+ breast	\$228,751	\$141,824
Dolan, Mary Eileen	Pharmacogenomics of Childhood Leukemia (All)	\$53,125	\$30,813
	NCI Youth Enjoy Science Research Education Program (R25) - 2017	\$354,337	\$11,814
Fleming, Gini	DOD Breast Cancer Research Program	\$36,427	\$9,471
	Alliance NCORP Research Base	\$710,378	\$184,698
	Alliance for Clinical Trials in Oncology Operations Center	\$2,869,032	\$667,949
Kindler, Hedy	UG1 - NCTN (Network Lead)	\$311,863	\$193,355
Larson, Richard A.	Stopping Tyrosine Kinase Inhibitors in CMP Patients	\$12,171	\$7,059
Lebeau, Michelle M.	Molecular mechanisms of myeloid suppressor genes on chromosome 5	\$221,887	\$128,694
	UCCCC Cancer Center Support Grant	\$3,026,823	\$1,876,627
Luke, Jason	Genomic and Commensal Variants Associated with Immunotherapy in Cancer Patients	\$120,000	\$69,600
O'Donnell, Peter H.	Implementation of Point-of-Care Pharmacogenomic Decision Support in Perioperative Care	\$475,954	\$295,091
Olopade, Olufunmilayo	Case GI SPORE	\$23,394	\$13,569
	Returning genetic research panel results for breast cancer susceptibility	\$41,306	\$23,957
	Scholars in Oncology Associated Research (SOAR)	\$150,854	\$12,068
	Basic Medical Research Training in Oncology	\$400,961	\$32,077
	UChicago Interdisciplinary Cancer Health Disparities SPORE	\$663,994	\$411,676
	Developing an Oncology Workforce for the 21st Century	\$870,121	\$69,610
Pearson, Alexander T	A reasoned approach to combination therapy development in head and neck cancer	\$148,200	\$11,856
Ratain, Mark J.	Clinical Therapeutics	\$490,602	\$39,248
Smith, Sonali	SWOG Network Group Operations Center of the NCTN	\$11,519	\$7,142
Stadler, Walter M.	SPORE in Prostate Cancer	\$299,990	\$173,994
Stock, Wendy	Center for Precision Medicine in Leukemia	\$81,495	\$47,267
Sundaravel, Sriram	Leveraging epigenetic and epitranscriptomic aberrations in cancer to identify molecular targets for designing therapy	\$44,524	\$0
Sweis, Randy F	Elucidating immunotherapy resistance mechanisms in non-T cell-inflamed bladder cancer	\$196,916	\$15,753
Thirman, Michael J.	Ionizing radiation-induced hematological malignancies	\$36,000	\$22,320
	Instructive role of MLL fusion proteins in lineage determination and leukemogenesis	\$487,513	\$89,196
<b>Total PHS Research</b>		<b>\$12,688,018</b>	<b>\$4,779,102</b>

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Akpan, Imo	CHEK2 mutations as predisposition alleles for inherited hematopoietic malignancies (CSCTR)	\$10,000	\$0
	CHEK2 mutations as predisposition alleles for inherited hematopoietic malignancies (Cancer Research Foundation)	\$37,500	\$0
Conzen, Suzanne D.	Understanding mechanisms of glucocorticoid receptor modulation of estrogen receptor activity in cancer (Cancer Research Foundation)	\$50,000	\$0
	The role of glucocorticoid receptor and AR variant expression in enzalutamide-resistant TNBC (Breast Foundation)	\$1,658,463	\$331,693
Dolan, Mary Eileen	Susan G. Komen Foundation	\$135,000	\$0
Drazer, Michael W	Defining leukemogenic mechanisms in hereditary hematologic malignancies (Damon Runyon)	\$120,000	\$0
Feurstein, Simone	Myeloid Malignancies (Hematology Research Foundation)	\$11,364	\$1,136
Godfrey, James	Molecular regulation of PD-L1 expression and anti-tumor immunity in DLBCL (Cancer Research Foundation)	\$37,500	\$0
	Utilizing the T cell inflamed phenotype to identify molecular markers of response and resistance to PD-1 blockade in DLBCL (Hematology Research Foundation)	\$70,000	\$0
	ALL in Hispanic patients: searching for germline genetic variants to explain health disparity (Hematology Research Foundation)	\$2,000	\$0
	CBC Program Management at The University of Chicago (SFCCT)	\$130,000	\$0
	Identifying inherited variants that predispose to lymphoid malignancies (V Foundation)	\$180,000	\$19,998
	Modeling myeloid malignancies mediated by germline RUNX1, ETV6, and ANKRD26 mutations (Leukemia Lymphoma Society)	\$180,018	\$19,982
Huo, Dezheng	Genetic and Epigenetic Factors in Breast Cancer (Breast Foundation)	\$208,333	\$41,667
Jakubowiak, Andrzej	Multiple Myeloma Research Consortium Site Grant (MMRC)	\$56,250	\$11,250
Kline, Justin P.	Examining the role of tumor-derived MHC1 in antigen presentation by DCs (AA Immun)	\$24,324	\$0
	PD-L1 gene amplifications and the "T cell inflamed" microenvironment in DLBCL (V Foundation)	\$181,818	\$18,182
Lebeau, Michelle M.	ACS Institutional Research Grant (American Cancer Society)	\$90,000	\$0
	Evans Foundation - Study of Myelodysplastic Syndromes - 2017 (EPEF)	\$181,818	\$18,182
	Cancer and Microbiome and/or Epigenetics/Epitranscriptomics (ANON)	\$300,000	\$0
Maron, Steven	Intra-patient tumor immune environment heterogeneity and immune checkpoint blockade resistance (Conquer Cancer Foundation)	\$2,462	\$129
	Intra-patient tumor heterogeneity and checkpoint blockade resistance (AACR)	\$12,823	\$0
Nanda, Rita	The Breast Cancer Clinical Trials Consortium (Breast Foundation)	\$10,417	\$2,083
	Proposal for a Partnership Between the Breast Cancer Research Consortium "TBCRC" and the Komen Foundation (Komen)	\$10,420	\$2,080
Olopade, Olufunmilayo	Enabling A Paradigm Shift: A Preference-Tolerant RCT of Personalized vs Annual Screening of Breast Cancer (Breast Foundation)	\$41,429	\$16,571
	Genomic Approaches for Primary Prevention of Breast Cancer (American Cancer Society)	\$80,000	\$0
	Translating Breast Cancer Genetics in the Clinic (Komen Foundation)	\$160,000	\$40,000
	Implementing Evidence Based Interventions to Reduce Breast Cancer Mortality in Low Resource Settings - (Breast Foundation)	\$208,333	\$41,667
Pearson, Alexander T	Live Cell Imaging of Head and Neck Cancer Stemness and Quiescence (Cancer Research Foundation)	\$37,500	\$0
Sweis, Randy F	Innate immune activation to mediate tumor control in bladder cancer (Cancer Research Foundation)	\$37,500	\$0
Uppal, Sakshi	The impact of hypoxia on epigenetic changes in neuroblastoma (ALEXSLEMON)	\$50,000	\$0
Wickrema, Amittha	Therapeutic targeting of anemia in MDS by modulation of DOCK4 pathway (Leukemia Lymphoma Society)	\$180,018	\$19,982
<b>Total State/Association/Foundation Grants</b>		<b>\$4,495,290</b>	<b>\$584,602</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF HEMATOLOGY/ONCOLOGY (Continued)

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>INDUSTRY GRANTS</b>			
Kline, Justin P.	Role of TIGIT in T cell dysfunction in leukaemia and lymphoma (ITEOSTHERA)	\$34,610	\$6,922
Lim-Seiwert, Tanguy	Immune characterization of head and neck squamous cell carcinomas (HNSCC) and malignant Mesotheliomas to understand the role of ICOS and mechanisms of resistance to anti-PD-1/PD-L1 based immunotherapies (JOUNCE)	\$89,286	\$35,714
Sweis, Randy F	Developing consensus calls TCGA bladder cancer samples MHC class II types (EPIVAX)	\$10,141	\$4,056
<b>Clinical Trial Earnings</b>		<b>\$20,519,751</b>	<b>\$5,129,938</b>
<b>Total Industry Grants</b>		<b>\$20,653,788</b>	<b>\$5,176,630</b>

## SECTION OF HEMATOLOGY/ONCOLOGY

Total Sponsored Research	FY15	FY16	FY17	FY18	FY19
Public Health Service	\$10,966,978	\$15,721,229	\$13,938,323	\$14,213,838	\$17,467,120
State/Association/Foundation	\$6,921,685	\$3,220,776	\$4,320,332	\$4,527,759	\$5,079,892
Industry Grants	\$16,364,357	\$17,059,908	\$21,656,896	\$24,218,565	\$25,830,418
<b>TOTAL</b>	<b>\$34,253,020</b>	<b>\$36,001,913</b>	<b>\$39,915,551</b>	<b>\$42,960,162</b>	<b>\$48,377,430</b>

## SECTION OF HOSPITAL MEDICINE

<b>PUBLIC HEALTH SERVICE</b>			
Chattopadhyay, Ishanu	Platform Technologies for Zoonotic Disease Control	\$127,498	\$74,228
	Q-Nets: Accelerated Robust Learning Via Deep Knowledge Integration	\$308,228	\$191,102
	Q-Nets: Accelerated Robust Learning Via Deep Knowledge Integration	\$324,079	\$175,921
Gibbons, Robert	Accelerator Strategies for States to Improve System Transformations Affecting Children, Youth and Families	\$22,980	\$14,247
	Peer-led Suicide Prevention: Promoting Healthy Role Transitions for Military Personnel	\$30,977	\$17,967
	Optimizing Youth Suicide Risk Screening in the Emergency Department	\$82,655	\$26,873
	Synthesis of Trials to Prevent Suicide Risk Behavior in Sexual and Gender Minorities	\$86,158	\$53,418
	Harnessing Computerized Adaptive Testing, Transdiagnostic Theories of Suicidal Behavior, and Machine Learning to Advance the Emergent Assessment of Suicidal Youth (EASY)	\$116,557	\$72,265
Meltzer, David	Health Services Training Grant Subaward-Northwestern	\$60,654	\$4,852
	Short Term Aging-Related Research Program	\$65,286	\$5,223
	Chicago HIDTA Public Health Analyst (PHA)	\$67,460	\$17,540
	MD/PhD Program in Medicine, the Social Sciences and Aging	\$201,096	\$9,368
	African American Cardiovascular pharmacogenetic CONsortium (ACCOuNT): discovery and translation	\$396,098	\$229,736
	ITM 2.0: Advancing Translational Science in Metropolitan Chicago (FP065282-01-PR) - TLI Component	\$511,308	\$33,225
	The University of Chicago Patient Centered Outcome Research K12 Training Program	\$583,985	\$46,718
Prochaska, Micah	The Effect of Red Blood Cell Transfusion on Fatigue, Activity and Fatigability in Hospitalized Patients with Anemia	\$147,481	\$11,798
<b>Total PHS Research</b>		<b>\$3,132,500</b>	<b>\$984,481</b>

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Meltzer, David	AHA Hospital Community Cooperative-C4P (AMER HOS)	\$10,000	\$0
	Integrating Oral Health in Primary Care (MRHT)	\$14,730	\$5,270
	Supportive Release Center - Expanding Recruitment to Bond Court (MCCOR Foundation)	\$33,333	\$6,667
	CAPriCORN - Phase II Subaward (Year 3 via NU) (PCORI)	\$41,298	\$16,519
	Mental Health and Criminal Justice: Addressing the Needs of Women(Pritzker Foundation)	\$108,696	\$16,304
	CAPriCORN 2.0 (PCORI)	\$135,393	\$13,539
	AmeriCorps C4P (IDPH)	\$141,495	\$7,443
	Longitudinal Effects of the Comprehensive Care Physicians Program (Don Foundation)	\$187,208	\$18,721
	The Road Map Initiative: Cross-sectoral Data Match Identifying Solutions for High Utilizers (Pritzker Foundation)	\$204,928	\$40,985
	Critical Time Intervention in a Criminal Justice Setting (LJAF)	\$220,456	\$22,046
	CMS Practice Transformation Network (CMS)	\$274,323	\$99,229
	Aligned Interventions for the Comprehensive Care, Community and Culture Program (C4P) (RWJF)	\$446,428	\$53,571
<b>Total State/Association/Foundation Grants</b>		<b>\$1,818,288</b>	<b>\$300,294</b>
<b>INDUSTRY GRANTS</b>			
Edelson, Dana	eCART Lite: Detecting Clinical Deterioration in the Hospital Using Limited Clinical Variables and Continuous Monitoring Data (EARLYSENSE)	\$82,143	\$32,857
<b>Total Industry Grants</b>		<b>\$82,143</b>	<b>\$32,857</b>

## SECTION OF HOSPITAL MEDICINE

Total Sponsored Research	FY15	FY16	FY17	FY18	FY19
Public Health Service	\$4,519,439	\$3,666,163	\$5,092,695	\$3,961,010	\$4,116,981
State/Association/Foundation	\$1,444,109	\$1,177,457	\$1,551,425	\$1,389,152	\$2,118,582
Industry Grants	\$124,920	\$371,813	\$-	\$115,000	\$115,000
<b>TOTAL</b>	<b>\$6,088,468</b>	<b>\$5,215,433</b>	<b>\$6,644,120</b>	<b>\$5,465,162</b>	<b>\$6,350,563</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF INFECTIOUS DISEASES & GLOBAL HEALTH

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Hotton, Anna	POSSE Project: A Community-Level Intervention for Black YMSM	\$1,959	\$1,214
	POSSE Project: A Community-Level Intervention for Black YMSM	\$5,212	\$3,231
	Computational discovery of effective hepatitis C intervention strategies	\$8,433	\$5,228
	Evaluation for TransLife Center	\$10,052	\$6,232
Khanna, Aditya S.	Assessing and modeling network-level consequences of patient navigation	\$52,853	\$32,769
	Syphilis in Chicago: Epidemiology, Sexual Networking and Modeling for Prevention	\$74,209	\$46,010
McNulty, Moira C.	Employing eSBI in a Community-based HIV Testing Environment for At-risk Youth	\$74,021	\$42,932
	Implementation Science to Strengthen the Integrated Care Continuum in Getting to Zero Contexts	\$157,855	\$12,628
Pho, Mai Tuyet	Pre-Release Linkage to HCV, HIV, and Addiction Services (PRELINK)	\$4,769	\$2,957
	Ending transmission of HIV, HCV, and STDs and overdose in rural communities of people who inject drugs (ETHIC)	\$626,091	\$166,959
Pittrak, David	University of Chicago Expanded HIV Testing and Linkage to Care for Disproportionately Affected Populations in Healthcare Settings on the South Side and West Side of Chicago (CDC)	\$689,510	\$68,951
Ridgway, Jessica P.	Predictive Analytics for Retention in HIV Care	\$9,166	\$5,683
Schneider, John A.	Keeping it LITE: Exploring HIV Risk in Vulnerable Youth with Limited Interaction	\$7,555	\$4,684
	Impact of Social Cohesion and Social Capital in PrEP with Limited Interaction	\$14,424	\$8,943
	Impact of Social Cohesion and Social Capital in PrEP Uptake and Adherence Among Transwomen of Color	\$27,696	\$17,170
	Determining the accuracy of self- and partner anal exams for detecting anal abnormalities	\$93,563	\$58,009
	Third Coast HIV-Related Cardiovascular and Sleep Disorders K12 Career Development Program	\$95,893	\$5,924
	Center for Prevention Implementation Methodology for Drug use and HIV	\$133,036	\$82,483
	Third Coast Center for AIDS Research	\$145,609	\$90,277
	Accelerating PrEP Diffusion through Network Change Agents	\$223,393	\$95,312
	Comprehensive High Impact HIV Prevention Projects for Community-Based Organizations	\$224,046	\$0
	PrEP Uptake and Adherence Among Young Black MSM: Neighborhood and Network Determinants	\$315,482	\$182,979
	Insurance Coverage Expansion (ICE): A collaboration to increase and strengthen access to care among men and their networks	\$381,413	\$115,962
	Next-Generation Phylodynamics-targeted Partner Service Models for Combined HIV Prevention	\$601,350	\$188,707
	HIV intervention models for criminal justiceM involved substance-using Black MS	\$617,433	\$173,464
	Methodology and Advanced Analytics Resource Center (MAARC)	\$12,168,810	\$5,080,820
Young, Lindsay	HIV prevention and care	\$87,807	\$7,025
<b>Total PHS Research</b>		<b>\$16,851,640</b>	<b>\$6,506,553</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Schneider, John A.	HBH Professional Service Agreement (Howard Brown)	\$54,661	\$10,932
Sherer, Renslow	WUMER Project (SAMSWU)	\$1,735,617	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$1,790,278</b>	<b>\$10,932</b>

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>INDUSTRY GRANTS</b>			
Mullane, Kathleen	Practice Patterns and Incidence of Adenovirus Infections in Hematopoietic Cell Transplant in the United States: AdVance US. (ANALYTICA)	\$1,043	\$417
Clinical Trial Earnings		\$268,611	\$67,152
<b>Total Industry Grants</b>		<b>\$269,654</b>	<b>\$67,569</b>

## SECTION OF INFECTIOUS DISEASES AND GLOBAL HEALTH

Total Sponsored Research	FY 15	FY 16	FY 17	FY 18	FY 19
Public Health Service	\$2,006,111	\$4,939,253	\$4,375,800	\$6,771,830	\$23,358,193
State/Association/Foundations	\$1,582,822	\$1,533,603	\$1,369,719	\$1,698,342	\$1,801,210
Industry Grants	\$1,476,058	\$950,764	\$642,126	\$1,003,327	\$337,223
<b>TOTAL</b>	<b>\$5,064,991</b>	<b>\$7,423,620</b>	<b>\$6,387,645</b>	<b>\$9,473,499</b>	<b>\$25,496,626</b>

## SECTION OF NEPHROLOGY

<b>PUBLIC HEALTH SERVICE</b>			
Chapman, Arlene Beth	Kansas PKD Research and Translation Core Center	\$29,257	\$13,910
	Consortium for Radiologic Imaging Studies of Polycystic Kidney Disease (CRISP) IV: Prognosis for End-Stage Renal Disease and Biomarker Validation	\$61,537	\$35,225
Hassan, Hatim A.	Developing a peptide-based oral drug to prevent kidney stones	\$80,629	\$49,990
	Calcium Oxalate Kidney Stones: Pathogenesis of Obesity-associated Hyperoxaluria	\$217,500	\$126,150
Koyner, Jay L.	An Early Real-Time Electronic Health Record Risk Algorithm for the Prevention and Treatment of Acute Kidney Injury: A Randomized Trial of an Early Standardized, Personalized Nephrology Intervention	\$150,000	\$93,000
Worcester, Elaine M.	Pathogenesis of Calcium Nephrolithiasis	\$1,170,244	\$205,996
<b>Total PHS Research</b>		<b>\$1,709,167</b>	<b>\$524,271</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Ko, Benjamin S.	Kidney TREKS Program (American Nephrology Society)	\$90,000	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$90,000</b>	<b>\$-</b>
<b>INDUSTRY GRANTS</b>			
Hassan, Hatim A.	Therapeutic Potential of Oxalobacter formigenes-derived Factors for Hyperoxaluria, Hyperoxalemia, and related Kidney Stones (OXALO)	\$78,286	\$21,714
Clinical Trial Earnings		\$264,969	\$66,242
<b>Total Industry Grants</b>		<b>\$343,255</b>	<b>\$87,956</b>

## SECTION OF NEPHROLOGY

Total Sponsored Research	FY 15	FY 16	FY 17	FY 18	FY 19
Public Health Service	\$3,268,846	\$1,931,796	\$652,272	\$2,058,334	\$2,233,438
State/Association/Foundations	\$404,067	\$687,377	\$-	\$180,000	\$90,000
Industry Grants	\$313,974	\$279,439	\$248,554	\$521,209	\$431,211
<b>TOTAL</b>	<b>\$3,986,887</b>	<b>\$2,898,612</b>	<b>\$900,826</b>	<b>\$2,759,543</b>	<b>\$2,754,649</b>



# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF PULMONARY/CRITICAL CARE

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Bonham, Catherine A	T cells in idiopathic pulmonary fibrosis	\$153,200	\$12,256
Camacho, Daniel	IRF4+ respiratory dendritic cells in type 2 inflammatory responses	\$49,524	\$0
Churpek, Matthew M.	Sepsis Early Prediction and Subphenotype Illumination Study (SEPSIS)	\$255,890	\$148,479
Fang, Yun	Mechanisms of Imbalanced Inward and Outward Arteriovenous Fistula Remodeling	\$13,638	\$8,456
	Mechanisms of ERG in Endothelial Activation	\$14,213	\$8,812
	Coronary artery disease locus 1p32.2 and miR92a-PPAP2B signaling in endothelial mechanobiology	\$250,000	\$149,048
Fang, Yun	Spatial delivery of microRNA inhibitor via targeted polyelectrolyte complex micelles to treat atherosclerosis.	\$250,000	\$144,766
Guzy, Robert David	Mechanism of Fibroblast Growth Factor 2-Mediated Alveolar Epithelial Repair - Resubmission	\$151,800	\$12,144
Hamanaka, Robert	Metabolic Regulation of Epidermal Homeostasis	\$78,488	\$6,279
McShane, Pamela J.	P2 Study of Clofazimine for Pulmonary M. Avium Disease Ind. 125,266	\$26,000	\$16,120
Mokhlesi, Babak	The Impact of Low Flow Nocturnal Oxygen Therapy On Hospital Readmission/Mortality in Patients with Heart Failure and Central Sleep Apnea: A Pragmatic Trial (LOFT-HF)	\$15,808	\$9,800
Mutlu, Gokhan M.	Role of alveolar macrophages in particulate matter-induced cardiopulmonary disease	\$283,830	\$160,117
	Role of alveolar macrophages in particulate matter-induced cardiopulmonary disease	\$285,530	\$147,997
	Particulate matter-induced changes in DNA methylome and transcriptome	\$386,306	\$224,057
	The Role of Alveolar Macrophage Beta-2 Adrenergic Receptors in Acute Lung Injury	\$400,000	\$232,000
Olopade, Christopher O.	10th Annual CUGH Conference on Translation and Implementation for Impact in Global Health: Travel Support for Junior and Mid-Level Career LMIC Environmental Health Scholars	\$8,000	\$0
	Summer Program to Increase Diversity in Biomedical Research & Physician Workforce	\$129,700	\$10,376
Solway, Julian	Preclinical development of myosolvins, a new class of medicine for asthma	\$125,394	\$72,729
	Mendelian Disease - Asthma Comorbidity to Find Subgroup-Specific Asthma Genes	\$492,202	\$266,290
	ITM 2.0: Advancing Translational Science in Metropolitan Chicago	\$4,492,844	\$1,788,129
	ITM 2.0: Advancing Translational Science in Metropolitan Chicago (FP065282-01-PR) - KL2 Component	\$604,453	\$25,823
Sperling, Anne I.	Microbial effects on Acute Lung Injury	\$150,000	\$93,000
	IRF4+ respiratory dendritic cells in type 2 inflammatory responses	\$256,156	\$142,892
	Research training in respiratory biology	\$692,133	\$51,730
Tasali, Esra Fatma	Sleep Extension To Reduce Diabetes and Obesity Risk	\$380,735	\$164,301
Verhoef, Philip	Type 2 Immune Responses Protect Against the Morbidity and Mortality of Sepsis	\$151,800	\$12,144
White, Steven	Azithromycin and the airway microbiome in asthma	\$269,061	\$91,209
	Chicago Metropolitan Asthma Consortium for severe / exacerbation-prone asthma	\$355,142	\$91,049
Wu, David D	Regulation of vascular metabolism in acute lung injury	\$148,200	\$11,856
<b>Total PHS Research</b>		<b>\$10,870,047</b>	<b>\$4,101,859</b>

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Adegunsoye, Ayodeji	Impact of Telomere Length on Pulmonary Fibrosis Clusters across Diverse Racial Cohorts (Chest Foundation)	\$20,000	\$0
	Impact of Race on Genetic Predisposition to Radiologic Honeycombing in Pulmonary Fibrosis (Pulmonary Fibrosis Foundation)	\$21,739	\$3,261
Bonham, Catherine A	T Cells in Idiopathic Pulmonary Fibrosis Patients (RHAMC)	\$2,379	\$0
Churpek, Matthew M.	A Comparison Study of the Queensland Adult Deterioration Detection System with Other Adult Deterioration Detection Systems (QUEENSLAND)	\$15,000	\$3,000
Guzy, Robert David	Mechanism of Gremlin-1 in the development of pulmonary fibrosis (Pulmonary Fibrosis Foundation)	\$21,739	\$3,261
	FGF regulation of myofibroblast differentiation (American Lung Association)	\$40,000	\$0
Hamanaka, Robert	Metabolic Regulation of Myofibroblast Differentiation (RHAMC)	\$21,422	\$0
Krishack, Paulette	Type 2 Innate Inflammatory Response Protects Staphylococcus Aureus Induced Sepsis (American Heart Association)	\$54,316	\$0
McShane, Pamela J.	Multi-center randomized pragmatic clinical trial comparing 2- versus 3-antibiotic therapy for pulmonary Mycobacterium avium complex disease (PCORI)	\$21,789	\$8,716
Naureckas, Edward	American Lung Association Asthma Clinical Research Network (American Lung Association)	\$15,067	\$0
	Cystic Fibrosis Foundation Practice Guidelines Update (Cystic Fibrosis Foundation)	\$26,026	\$0
	Award for a Mental Health Coordinator (Cystic Fibrosis Foundation)	\$50,000	\$4,000
	Cystic Fibrosis Foundation Center Grant 2018-2019 (Cystic Fibrosis Foundation)	\$54,260	\$0
Oh, Myung-Jin	Spatial inhibition of Disturbed Flow induced miR-92a and endothelial glycolysis - (American Heart Association)	\$52,216	\$0
Patel, Bhakti	Impact of early mobilization on insulin resistance and ICU-acquired weakness (Francis B. Parker Foundation)	\$54,000	\$0
Solway, Julian	Identifying the molecular binding partners of remodilins (SFCCT)	\$32,626	\$0
Wu, David D	Uncovering single cell endothelial metabolism dynamics in vascular injury models (CSCTR)	\$10,000	\$0
<b>Total State/Association/Foundation Grants</b>		<b>\$512,579</b>	<b>\$22,238</b>
<b>INDUSTRY GRANTS</b>			
Hogarth, Douglas Kyle	EBUS Workshop (Meeting) (Boston Scientific)	\$3,636	\$364
	Bronchial Thermoplasty and EBUS Course (Boston Scientific)	\$7,273	\$727
Murgu, Septimiu	Interventional Pulmonology Fellowship at The University of Chicago (Cook Medical)	\$9,091	\$909
	Interventional Pulmonology Fellowship at The University of Chicago (CONLAB)	\$20,000	\$0
	Interventional Pulmonology Fellowship at The University of Chicago (Boston Scientific)	\$30,000	\$0
<b>Clinical Trial Earnings</b>		<b>\$566,762</b>	<b>\$141,691</b>
<b>Total Industry Grants</b>		<b>\$636,762</b>	<b>\$143,691</b>

## SECTION OF PULMONARY/CRITICAL CARE

Total Sponsored Research	FY 15	FY 16	FY 17	FY 18	FY19
Public Health Service	\$14,426,748	\$17,680,416	\$9,940,793	\$13,557,230	\$14,971,906
State/Association/Foundations	\$316,361	\$818,564	\$396,894	\$324,614	\$534,817
Industry Grants	\$756,872	\$855,821	\$681,125	\$515,713	\$780,453
<b>TOTAL</b>	<b>\$15,499,981</b>	<b>\$19,354,801</b>	<b>\$11,018,812</b>	<b>\$14,397,557</b>	<b>\$16,287,176</b>



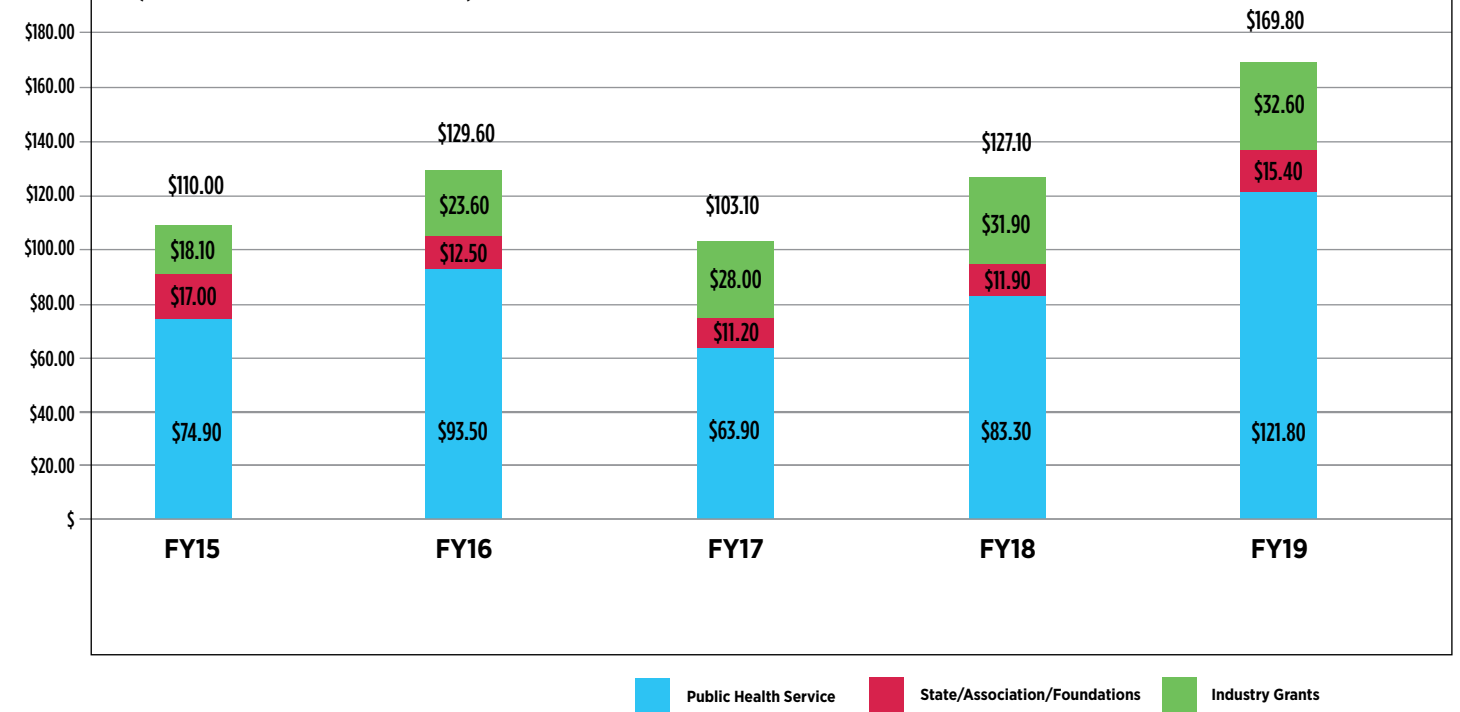
# TOTAL SPONSORED RESEARCH AWARDS

## SECTION OF RHEUMATOLOGY

PRINCIPAL INVESTIGATOR	TITLE OF FUNDED GRANT	ANNUAL DIRECT COSTS AWARDED	ANNUAL INDIRECT COSTS AWARDED
<b>PUBLIC HEALTH SERVICE</b>			
Alegre, Maria-Luisa	The microbiota and allograft rejection: novel investigations into the consequences of obesity	\$75,507	\$46,814
	Impact of Microbiota on Alloimmune Responses in Transplantation	\$250,000	\$139,432
	Infections and The Stability of Transplantation Tolerance - Renewal 01	\$980,000	\$607,600
Clark, Marcus Ramsay	Regulation of Ig-kappa recombination during B lymphopoiesis	\$297,829	\$164,022
	The epigenetic reader BRWD1 in peripheral adaptive immunity	\$304,813	\$183,032
	University of Chicago Autoimmunity Center of Excellence	\$325,000	\$200,012
	Medical Scientist National Research Service Award	\$1,195,776	\$95,662
Gounari, Fotini	How beta-catenin expands Foxp3+RORgammat+ Pro-inflammatory T-regulatory cells	\$288,826	\$106,716
Henry, Carole	Assessment of the role of complement in broadly neutralizing antibody-mediated protection against influenza virus infection	\$18,696	\$11,592
	Deciphering human antibody responses to influenza B viruses	\$120,395	\$74,645
Kennedy, Domenick	BRWD1 and the molecular regulation of humoral immunity	\$61,610	\$0
Liarski, Vladimir	Characterizing in situ T cell:dendritic cell networks in human lupus nephritis and renal allograft rejection	\$149,894	\$11,992
Wilson, Patrick C.	Studies of human B cell tolerance, from a humanized mouse model to human beings	\$11,679	\$6,774
	DIVINCI: Dissection of Influenza Vaccination and Infection for Childhood Immunity	\$50,000	\$31,000
	System Biological Analysis of Innate and Adaptive Responses to Vaccination	\$81,932	\$47,349
	Toward a Universal Influenza Virus Vaccine	\$250,000	\$155,000
	NIAID Centers of Excellence in Influenza Research and Surveillance	\$423,918	\$246,858
<b>Total Public Health Service Grants</b>		<b>\$4,885,875</b>	<b>\$2,128,500</b>
<b>STATE/ASSOCIATION/FOUNDATION GRANTS</b>			
Gounari, Fotini	Mechanistic insight into de-regulation of inflammation and immunity by Tregs and microbiota (PRAESPERO)	\$70,755	\$4,245
Ko, Kichul	Lupus Clinical Investigators Network (LuCIN) (Lupus Research Foundation)	\$40,000	\$0
	Rheumatology Fellowship Training Award (RRF)	\$50,000	\$0
Mathur, Priya	Transcriptional and epigenetic roles for β-catenin in the genomic instability and oncogenic transformation of T-cell leukemia/lymphoma (Leukemia Lymphoma Society)	\$57,143	\$2,857
Trotter, Kimberly	Implementation of DEcision-Aid for Lupus in Practice Settings for Shared Decision-Making: IDEAL study (PCORI)	\$18,755	\$7,502
Wilson, Patrick C.	Evaluation of safety and immunogenicity of chimeric HA expressing live-attenuated and inactivated universal influenza virus vaccines in phase I clinical trials (Gates Foundation)	\$162,329	\$16,233
<b>Total State/Association/Foundation Grants</b>		<b>\$398,982</b>	<b>\$30,837</b>
<b>INDUSTRY GRANTS</b>			
Liarski, Vladimir	Cellular drivers of inflammation in dermatomyositis, polymyositis, and inclusion body myositis (Pfizer)	\$58,594	\$16,406
<b>Clinical Trial Earnings</b>		<b>\$36,068</b>	<b>\$9,017</b>
<b>Total Industry Grants</b>		<b>\$94,662</b>	<b>\$25,423</b>

SECTION OF RHEUMATOLOGY	FY 15	FY 16	FY 17	FY 18	FY 19
<b>Total Sponsored Research</b>					
Public Health Service	\$6,847,760	\$5,846,364	\$5,871,237	\$7,392,784	\$7,014,375
State/Association/Foundation Grants	\$206,759	\$381,356	\$71,394	\$400,950	\$429,819
Industry Grants	\$179,652	\$127,250	\$28,901	\$127,250	\$120,085
<b>TOTAL</b>	<b>\$7,234,171</b>	<b>\$6,354,970</b>	<b>\$5,971,532</b>	<b>\$7,920,984</b>	<b>\$7,564,279</b>

## Total Sponsored Research for the Department of Medicine (Total Costs in Millions)



## Sponsored Research by Section (Total Costs in Millions)

