

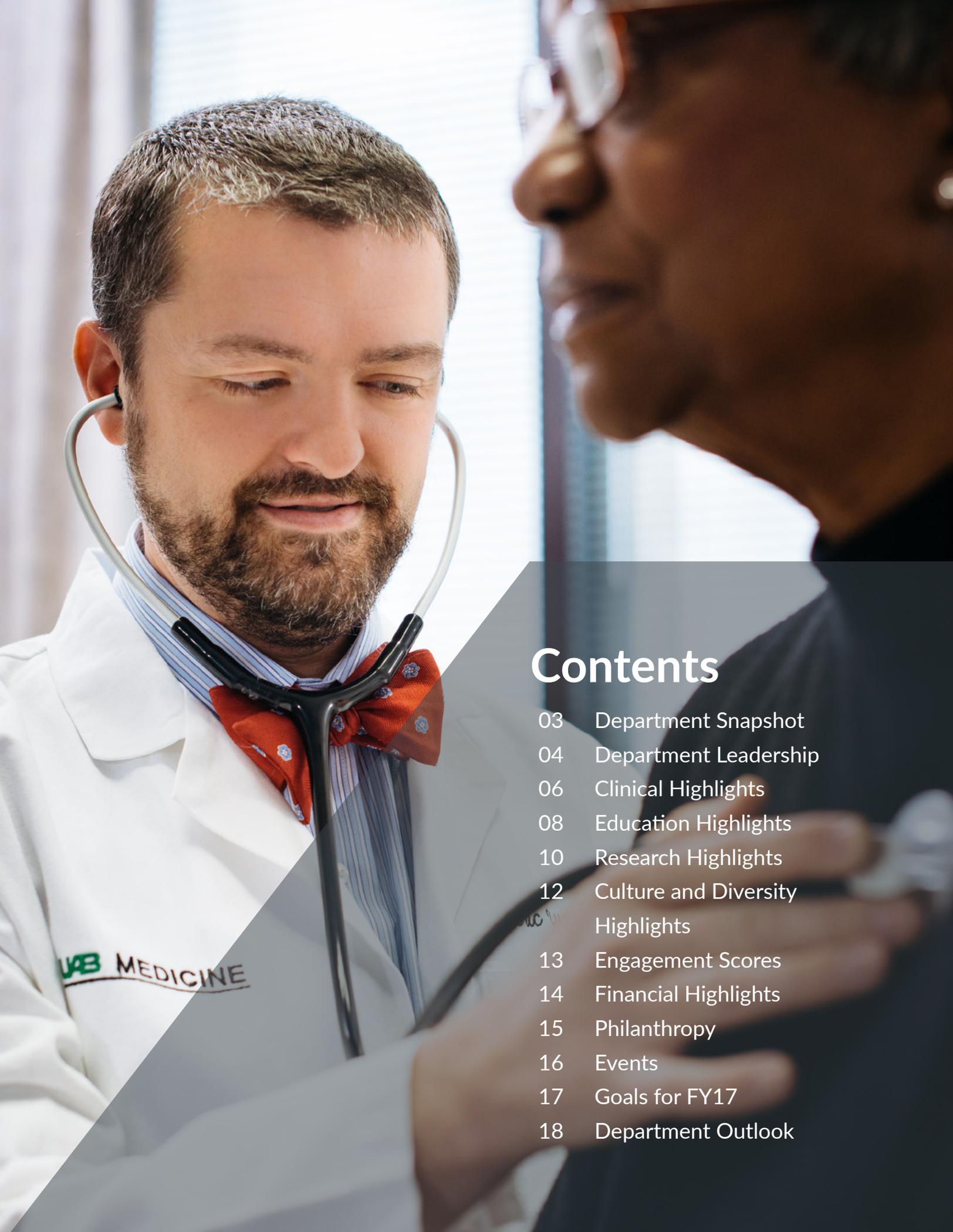
# ANNUAL REPORT

FY16



**UAB** SCHOOL OF  
MEDICINE

Department of Medicine



## Contents

- 03 Department Snapshot
- 04 Department Leadership
- 06 Clinical Highlights
- 08 Education Highlights
- 10 Research Highlights
- 12 Culture and Diversity  
Highlights
- 13 Engagement Scores
- 14 Financial Highlights
- 15 Philanthropy
- 16 Events
- 17 Goals for FY17
- 18 Department Outlook

# Department Snapshot

Our mission is to advance health and relieve suffering by caring for people, teaching, and creating knowledge using collaborative and sustainable methods that promote diversity and excellence.



**The Department of Medicine drives medical education, accelerates discovery, and delivers extraordinary patient care at The University of Alabama at Birmingham.**

The UAB Department of Medicine (DOM) is organized in 11 divisions, which are its major cultural and operational units, with a central administration that supports and coordinates the DOM enterprise across the divisions and in partnership with the rest of UAB Medicine.

## **CLINICAL** *We care for people.*

DOM engages actively in virtually every aspect of UAB Medicine's care for our patients and community, from care for the underserved to UAB's concierge practice, from transplantation of cells and solid organs to care for patients with complex systemic disease. DOM physicians account for approximately 38% of UAB Hospital Admissions and 23% of ambulatory visits.

## **RESEARCH** *We create knowledge.*

We are proud of the major discoveries reported in top scientific journals this year and the faculty that were invited to membership in top national honor societies. Our growing research portfolio accounts for roughly 45% of the School of Medicine NIH funding.

## **EDUCATION** *We train physicians and scientists.*

Our educational programs are all thriving with excellence across the spectrum of learners—graduate students, medical students, residents, and fellows. Our physician-educators have been consistently recognized as outstanding teachers who prepare the next generation of doctors and investigators for successful careers.

## **SUSTAINABILITY** *We aim to thrive.*

DOM has 415 faculty, 233 trainees, and over 1,200 staff. We are providing professional development opportunities for all our people, whom we consider our most valuable resource. Our financial outlook is promising thanks to strategic stewardship.

## **CULTURE** *We love what we do.*

Diversity is an important means of strengthening our faculty and staff. We have devoted ourselves to removing unconscious biases and to examining our approach to recruitment and retention. We have embraced the challenge of creating a culture of respect and inclusion for all.

## Department Leadership

Our talented leadership team guides our efforts to realize the tripartite aim of academic medicine: research, education, and patient care. Our Chair, Vice Chairs, and Division Directors bring incredible expertise and passion to their roles.



### C. Seth Landefeld, MD, *Professor and Chair*

Dr. Landefeld came to UAB in September of 2012. He is an internationally known general internist and geriatrician whose team invented Acute Care for Elders (ACE) Units. In 2016, he was appointed to the United States Preventive Services Task Force to examine the evidence base for preventive health services. He was also named Laureate of the American College of Physicians, Alabama Chapter.



**Anupam Agarwal, MD**  
Director, Nephrology



**Monica Baskin, PhD**  
Vice Chair, Culture and Diversity



**Ravi Bhatia, MD**  
Director, Hematology and Oncology



**Robert C. Bourge, MD**  
Senior Vice Chair



**S. Louis Bridges Jr., MD, PhD**  
Director, Clinical Immunology  
and Rheumatology



**Cynthia Brown, MD, MPH**  
Director, Gerontology, Geriatrics,  
and Palliative Care



**Carlos Estrada, MD, MS**  
Director, General Internal Medicine



**Mona Fouad, MD, MPH**  
Director, Preventive Medicine



**Stuart J. Frank, MD**  
Vice Chair, Research; Director,  
Endocrinology, Diabetes, and Metabolism



**Cynthia Joiner, PhD**  
Assistant Vice Chair, Research



**John I. Kennedy Jr., MD**  
Vice Chair, Birmingham Veterans  
Affairs Medical Center



**Jeanne Marrazzo, MD, MPH**  
Director, Infectious Diseases



**Sumanth Prabhu, MD**  
Director, Cardiovascular Disease



**Kenneth Saag, MD**  
Vice Chair, Faculty Development



**Victor J. Thannickal, MD**  
Vice Chair, Strategic Planning; Director,  
Pulmonary, Allergy, and Critical Care



**Elizabeth Turnipseed, MD, MSPH**  
Vice Chair, Clinical Affairs



**C. Mel Wilcox, MD, MSPH**  
Director, Gastroenterology  
and Hepatology



**Lisa Willett, MD, MACM**  
Vice Chair, Education

## Clinical Highlights



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Among the most important means of delivering outstanding patient care are our ambulatory clinics, primarily The Kirklin Clinic, as well as our satellite clinic locations. In FY16, DOM increased the number of patients seen by 9% and reduced canceled appointments to 1.3%. Outpatient satisfaction increased as well. Infectious Diseases was in the top 2% nationally and Nephrology in the top 6%.

## Medicine Services

**Lung Transplant.** DOM recruited a new director and two additional faculty members, increasing full-time lung transplant faculty to four. We are consistently improving outcomes. The most recent data shows a risk-adjusted one-year mortality index (O:E) of 0.65 for the 52 transplants performed from January 2013 – June 2015.

**Pulmonary Access Clinic.** Established to reduce wait times for new evaluations, ED and hospital follow-up, and acute pulmonary issues when a patient's primary pulmonologist is unavailable. Facilitates appointments within one week of referral request and same-day add-ons.

**Blood and Marrow Transplantation and Cellular Therapy Program.** Following careful analysis of factors affecting outcomes, we designed and implemented an action plan that involved program restructuring, realignment with established hospital services, and monitoring of outcomes in real time. Preliminary evidence of improved outcomes is encouraging. The program continues to grow with 188 transplants completed in 2015 compared to 163 in 2014 and 132 in 2013. Our goal is to complete 220 transplants annually.

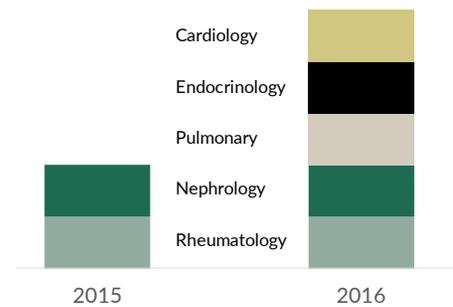
**Cardiology-TAVR.** As of August 29, 2016, we performed a total of 480 life-saving Transcatheter Aortic Valve Replacements. The new

TAVR procedure eliminates the need for open heart surgery and offers a shorter recovery time. Our success rate is extraordinary, with a mortality index of 0.29.

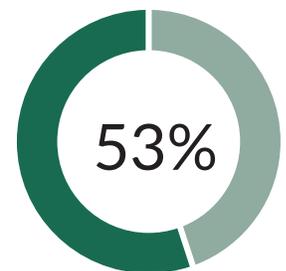
**Faculty Practice.** We are staffing a new DOM faculty practice to support our sub-specialists and mitigate ACGME caps. The existing pulmonary ward service will fold into the faculty practice, allowing us to expand consultative services and hopefully increase hospital throughput. The faculty practice will also staff the new Specialty Care Unit designed to improve weaning of patients with complicated respiratory failure through aggressive mobilization and reduction in variability of care.

**Tinsley Harrison Teaching Service.** Continues to be a hospital model in terms of low overall observed to expected mortality, low sepsis mortality, and length of stay. As of the end of June, overall O:E by admitting services was 0.86 for Tinsley Harrison, 0.90 for Hospitalist and 1.05 overall. Sepsis related O:E by admitting services was 0.96 for Tinsley Harrison and 1.39 for Hospitalist. Length of stay index through June for Tinsley Harrison was 0.86 and 1.04 for Hospitalist.

### Programs in US News Top 50



### Top 100 Physicians MPCAHPs



Our peers and our patients rank DOM programs and our physicians as the best in the nation. Five subspecialties were ranked in the Top 50 by *U.S. News and World Report*, and 53 of the Top 100 Physicians at UAB are appointed in the Department of Medicine.

# Education Highlights

The Tinsley Harrison Internal Medicine Residency Program continues to provide exemplary training for this year's 142 residents. Clerkship and fellowship programs are also high-performing, thanks in large part to the extraordinary physician-educators in the Department of Medicine.

Our satisfaction scores on the ACGME survey point to our educational success. Resident overall evaluations rank us 98% positive/very positive; faculty 100% very positive. Of the six domains, our program exceeds national means on five (faculty, evaluation, educational content, resources, patient safety/teamwork) and equals national mean on one (duty hours).

Our ABIM Board pass rates continue to surpass the national average with a 2016 UAB pass rate of 97.5% (national pass rate 89%). This brings our 3-year rolling average for UAB to 96% (up from 95%).

James Willig, MD, MSPH, one of the co-directors of the IM Clerkship, was named SOM Assistant Dean for Clinical Education. Winter Williams, MD, is now the MS3 Clerkship Director and Brooks Vaughan, MD, is Associate Clerkship Director and Director of the MS4 Acting Internship.

Dr. Vaughan has also developed a new MS4 curriculum and ambulatory experience for the MS3 clerkship. For the first time in UAB history, six faculty in The Kirklin Clinic are providing opportunities for MS3 students on IM clerkship to train in primary care continuity clinic. Students began October 24, 2016, with a new case-based curriculum for ambulatory medicine.

We had three faculty recognized by the medical students with Argus Awards this year: Michael Saag, MD, won Best Educator in Patient, Doctor and

Society. Former clerkship director James Willig, MD, MSPH, won Best Educator in Pulmonary, and Shawn Galin, PhD, won Best Educator in Endocrine Systems.

Our Department was also thrilled that Ashita Tolwani, MD, received the UAB President's Award for Excellence in Teaching.

Kreisberg Awards for Faculty Development:

- Monica Agarwal MD, \$15,000 provided to obtain a Masters in Medical Education for Health Professionals, Johns Hopkins.
- Gaurav Jain, MD, \$8,700 provided to participate in SGIM TEACH program (2 year) and AAIM Skills Development Conference.
- Stephen Russell, MD, \$2,200 to attend the Stanford Medicine 2016 Skills Symposium and the Southern Society of Bedside Medicine, Johns Hopkins.

## Residents in Training »

117 Categorical

16 Medicine-Pediatrics

9 ABIM Research Pathway

## Fellows in Training »

93 Fellows across 14 specialties



Our proactive efforts to increase diversity among under-represented backgrounds in the residency program are continuing to build momentum under the leadership of Latesha Elope, MD, MSPH, Program Director of Diversity and Inclusion, and the members of the Diversity Enrichment Committee.

Diversity/Special Interest Groups	Invited	Interviewed	Ranked	Matched
ABIM Research Pathway	19	17	4	2
Alpha Omega Alpha	107	78	68	10
Females	167	128	82	12
URM - African American	20	19	6	0
URM - Hispanic	17	14	8	3
URM - American Indian	1	1	0	0

## Research Highlights

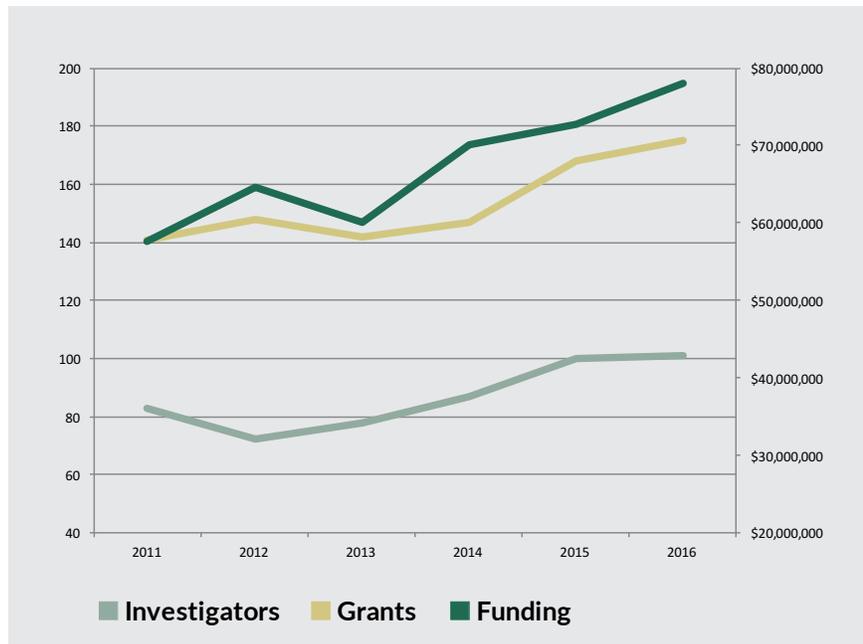


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DOM is proud of its robust research environment, with notable clinical discoveries in hypertension published by Suzanne Oparil, MD, and Cora E. Lewis, MD, MSPH (SPRINT). Victor J. Thannickal, MD, and Ravi Bhatia, MD, were elected to the American Association of Physicians. Will Geisler, MD, and Jeffrey Curtis, MD, MPH, were elected to the American Society of Clinical Investigation.

## NIH Funding, Grants and Investigators

In the past five years, the Department has grown from 80 NIH-funded investigators to over 100, and the number of grants has increased from 140 to 180, with each investigator holding an average of 1.7 grants.



The overall NIH portfolio has grown approximately 35% since 2011, with \$78,053,639 million in funding ranking the Department as #16 in the nation. We aim to continue that trend over the next five years, adding another \$20 million in grants to land solidly within the Top 10 in funding.

A key strategy is to continue to focus on cultivating early investigator success and K-awardees. The Department established the Walter B. Frommeyer, Jr., Fellowship in Investigative Medicine as an annual research award designed to support a two-year intensive, mentored research experience with the intent to develop more K-awarded faculty. We are delighted to see six new K awards issued in FY 2016, increasing the total to 26 awards, up from an average of 10 over the past five years.

### Grants by Mechanism

F	K	P	R01	R Other	T	U	Total
4	26	18	74	25	9	24	180



In addition to a robust and growing NIH portfolio, the Department of Medicine is proud of its expanding number of investigations supported by the U.S. Department of Veterans Affairs. DOM faculty garnered 7 new VA research awards in past year, bringing our total to 26 VA-funded awards.



About 40% of the year's publications were first-authored or senior-authored by DOM faculty, with 12 appearing in major scientific journals.

**NEJM - 5**

**JAMA - 4**

**Science - 3**

# Culture & Diversity Highlights

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Our dynamic and collaborative academic professionals create a culture that is vibrant and thriving. We have made important advancements towards our objective to “recruit and hire from a diverse, qualified group of potential applicants to secure a high-performing team drawn from a broad applicant pool.”

## Inaugural Vice Chair

The Department selected an inaugural Vice-Chair for Culture and Diversity (VC-CD) to, among other duties, provide leadership in activities related to increasing faculty diversity. The search committee recommended Monica Baskin, PhD, from a competitive applicant pool of five DOM faculty responding to our request for applications, and she was appointed by the Chair. Dr. Baskin exemplifies our objective for building a high-performing and diverse faculty.

Her appointment brings a faculty member who is Under Represented Minority (URM) to DOM leadership and adds to the number of female leaders in our Department. Dr. Baskin is passionate about implementing structural changes to ensure the recruitment and retention of high-qualified and diverse faculty and has led multiple activities in this area.

## Recruiting Best Practices

Our VC-CD has identified and led evidence-based discussions with Division Directors and Administrators concerning the need to ensure sufficient numbers of qualified URM and women in interview pools to increase the likelihood of hiring a more diverse faculty. This initial work is being followed up with individual meetings with each Division Director

and Administrator to review current practices for faculty recruitment in order to finalize a DOM faculty recruitment “best practice” guide and associated tracking documents to monitor progress over time.

Additionally, we have worked with our faculty search firms and The Chalker Group to develop more effective strategies to identify highly-qualified URM and female faculty for ongoing faculty searches and how to best present UAB and Birmingham when a diverse candidate makes a visit to campus.

## Visiting Lecturers

Our DOM Culture Work Group has worked to identify more diverse speakers for guest lectures such as Medical Grand Rounds and Visiting Scholars to identify potential faculty recruits.

## IM Residency

The Tinsley Harrison Internal Medicine Residency Diversity Committee, led by Latesha Elope, MD, is expanding efforts to recruit medical students who are URM by engaging historically black medical schools and personalizing efforts with intern applicants.



## Engagement Scores

### FACULTY SATISFACTION » 82%

#### Feedback: Areas of Strength

Faculty are proud of the Department and UAB, indicating they would recommend UAB to family and friends who need care. They believe the Chair is responsive to feedback from faculty, and that they are treated with respect at UAB.

#### Feedback: Areas for Attention

Faculty have expressed concern about a possible gap between men and women in compensation. They have also identified an opportunity to engage faculty in efforts to increase clinical efficiency.

### EMPLOYEE SATISFACTION » 84%

#### Feedback: Areas of Strength

Employees feel respected by the persons they report to, and in turn respect their supervisors. They also enjoy the work they do and believe their teams work well together.

#### Feedback: Areas for Attention

Employees did not feel confident that they are being paid comparably to those working in other health care employers in the area.

# Financial Highlights

## FY16 HSF Financials

- \$3.8M clinical operating margin
- \$102K margin after research and education transfers\* to UAB and contribution to AEF
- -\$1.4M reduction in net assets after investment income and use of prior year reserves
- \$2.5M of reserves were used for investment, of which \$2.2M were used to create or add to endowments
- Received 100% of our value-based metrics funding

\* Transfers are comprised of approximately \$2.1M (78%) research and \$600K (22%) education

## FY16 UAB Budget

- The FY16 Alabama State and Education Trust Fund (ASETF) and Indirect Expense Recovery (IER) budget will essentially break even at the Department level. We manage this allocation very closely. We also supplemented the education and research missions from clinical revenue by over \$4M, not including use of prior year reserves.
- We have allocated \$250K per year above and beyond the DOM's allocation formula to Preventive Medicine, our only pure research division. This is the equivalent to the earnings on a \$5M endowment.
- Endowment Corpus grew by \$10.6M. The Department invested approximately \$2.4M of HSF reserves and the remainder came from individuals.

## FY17 HSF Budget

- Anticipate a net asset reduction of -\$1.2M (excluding investment income)
- Budgeted to invest \$2.7M of prior year reserves in endowment corpus
- Funds Flow rates up in almost all DOM sub-specialties
- Increased reliance on clinical dollars for sustainability of research and education
- Partnering with SOM to renovate LHRB 4 for a joint Outcomes Research Floor  
Estimated cost to DOM of approximately \$2.5M, probably in FY18

## FY17 UAB Budget

- UAB ASETF allocation is flat
- UAB IER allocation is up by 9%, or \$192K

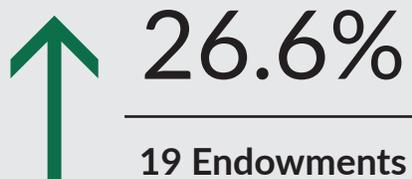
# Philanthropy

One of our most important revenue streams is charitable giving, which connects generous donors to causes they care about deeply. Through the ambitious endeavors of the DOM development team, millions have been raised for internal medicine training, research, and patient care.

The number of individuals and corporations investing in DOM is growing.



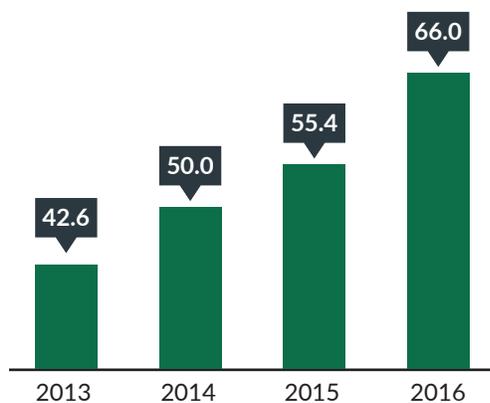
Endowments that support our faculty in perpetuity are on the rise.



This year has seen an astounding increase in dollars raised over FY15.



**Endowment Corpus in Millions**



Endowments grow both by return on investment in the University of Alabama Pooled Endowment Fund, and through additional gifts and pledges received.

Above: DCI honored Edwin A. Rutsky, MD (left) with an endowment in nephrology that will begin as a professorship with intent to ultimately endow a chair. Donors Azita Takeshian, MD (center) and Fred Steading (right).

## Events In 2016

Fiscal Year 16 has been filled with terrific stories of philanthropy, discovery, patient care, community health, and strategic planning.



### 1. Landmark Hypertension Trial / NOV 2015

Suzanne Oparil, MD, and Beth Lewis, MD, MSPH, shared final results from the landmark SPRINT study, published in the *New England Journal of Medicine*, confirming that treating adults 50 years and older with high blood pressure—but without diabetes or prior stroke—to a systolic blood pressure of 120 reduces the risk of cardiovascular disease and can save lives.

### 2. \$1 Million Gift / DEC 2015

The Sickle Cell Foundation fulfilled its pledge of support for the UAB Adult Sickle Cell Clinic, presenting a check to the Division of Hematology and Oncology.

### 3. Parks Rx / SEP 2016

Mona Fouad, MD, MPH, unveiled Parks Rx—a collaboration of UAB MHRC and Birmingham REACH for Better Health to connect patients to parks where they can be active.

### 4. S9 Care Team / APR 2016

Efforts to reunite a terminal patient with his family in Mexico brought the entire care team together in an incredible demonstration of humanity and advocacy.

### 5. Strategic Plan / AUG 2016

100 faculty and staff gathered for Department-wide strategic planning, evaluating more than 50 ideas to help shape FY17 Department goals.



## Goals for FY17

### Clinical

- Maintain and grow clinical operating margin
- Build structures to improve quality of care in collaboration with other UAB Medicine structures
- Ensure continual improvement of the inpatient sub-specialty consult process
- Establish a Clinical Efficiency Team to match Health System resources with DOM clinical/operational priorities
- Develop recommendations for creation of Destination Programs within the DOM

### Culture and Diversity

- Develop and implement strategies to increase diversity of faculty and trainees.
- Objective study to identify possible gaps in compensation for female faculty in DOM
- Catalog known opportunities/requirements for awards to promote DOM faculty nominations
- Support the Clinical Workgroup in establishing its Clinical Efficiency Team

### Sustainability

- Maintain DOM reserves at 120 days cash on hand
- Increase new endowments by \$10 million

- Standardize Annual Comprehensive Performance Reviews for faculty
- Develop guidelines for an on-boarding and ongoing retention process for new DOM faculty members
- Establish a follow up interview process for candidates who decline a faculty position

### Education

- Increase diversity of the incoming PGY-1 class
- Ensure that education activities are discussed and recognized at the annual faculty review
- Enhance incentives and resources for outstanding medical educators
- Expand last year's work to improve the quality of Medicine Grand Rounds

### Research

- Increase NIH funding to \$85M
- Pursue election of 3 or more faculty members to national honor societies
- Evaluate the incentive program for research faculty
- Evaluate the percent effort requirement and salary coverage among research faculty
- Improve PhD and MD faculty collaborations
- Explore appropriate metrics for assessing the impact of investigators' scholarly contributions

## Department Outlook

As we look to the future, we recognize that many obstacles lie ahead. Our resolve to meet these challenges head-on is unwavering.



- **Building clinical programs across UAB Medicine.** DOM support of an expanding health system will require increased coordination and development of new leaders and leadership structure.
- **Funding of “over the cap” salaries for research faculty.** This is especially problematic in the Division of Preventive Medicine which has little clinical revenue or endowment.
- **Ongoing investments in research.** To become a Top 10 department by 2021 (representing a growth in NIH funding of \$22 million annually), DOM has developed plans with all divisions and submitted a request to SOM for net research investment of approximately \$10 million per year.
- **Space and infrastructure to grow in all missions, especially research.** Based on surveys of development plans across DOM, we estimate a need of new incremental research space of about 7,000 square feet of wet lab and about 7,000 square feet of desktop research space annually for DOM. We anticipate that the NIH direct costs related to new space will be substantially greater than \$250 per square foot.
- **Building endowments to sustain research investments.** Endowments need to increase by \$5 million per year to compensate for the decrease in ASETF of approximately \$250,000 per year.
- **Building the faculty of the future.** We anticipate that DOM needs to recruit and develop about 10 faculty per year for the next decade simply to replace retiring faculty, including many of our most productive clinical and research-oriented faculty.
- **Enhancing quality education.** Faculty perceive other demands increasing, consistent with national trends of increased faculty “burnout.”





## Department of Medicine

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