ANNUAL REPORT 2013



# of Service to the Commonwealth



## The Mission of UK HealthCare

UK HealthCare is committed to the pillars of academic health care research, education and clinical care. Dedicated to the health of the people of Kentucky, we will provide the most advanced patient care and serve as an information resource. We will strengthen local health care and improve the delivery system of the Commonwealth by partnering with community hospitals and physicians. We will support the university's education and research needs by offering cutting edge clinical services on par with the nation's best providers.

# 1 UK HealthCare

# Service to the Commonwealth is our guide

# A report on fiscal year 2013 from the Executive Vice President for Health Affairs

As fiscal year 2013 began, we could proudly point to 50 years of service to the Commonwealth. Albert B. Chandler Hospital opened in April 1962 and for 50 years has remained the flagship of an increasingly robust health care system.

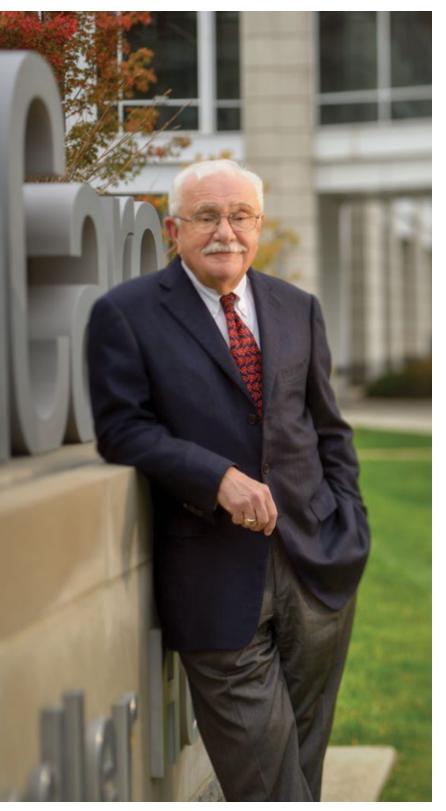
In 2003, we revisited the state's needs as well as the role UK HealthCare might play in meeting those needs. And in 2004 a new strategic plan was born – one grounded in a commitment to delivering care on par with the nation's best medical centers. UK HealthCare exists to complement, support and improve Kentucky's health care system.

Following strategies of growth, collaboration and relationship building for the past nine years, UK HealthCare uncovered unmet need greater than first imagined.

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Executive VP for Health Affairs Michael Karpf, MD, says UK HealthCare's strength and forward momentum comes from a commitment to the health care system of the Commonwealth.

# A report on fiscal year 2013 continued

Fiscal year 2013 – like several of the years since we embarked on a revitalized path – was *more* than we imagined.

#### More volume

With additional available beds, we set a new record for hospital discharges: 35,511, more than 1,000 discharges higher than in 2012. We also set a record for surgical volumes – 28,638 cases; 672 more than last year. We are growing when many other academic medical centers are not.

### Higher quality

We made excellent progress on our commitment to be a benchmark provider in terms of quality, safety and patient satisfaction. Today, we are among the nation's best-performing academic medical centers.

#### Improved financial stability

We have been thoughtfully managing cost – an effort we instituted at the end of 2012. Because we maintained the gains achieved, our increased volumes translated into strong financial performance and a positive operating margin of \$63.8 million. This level of performance is allowing us to expand programs, fully fund our debt services, finish repaying our operating loan to the university and invest in new equipment.

#### Minding the basics: quality, safety, efficiency, service

Fundamental to fulfilling our commitment to the Commonwealth is the need to provide high-quality advanced subspecialty care. Quality has many dimensions, and we are aggressively pursuing improvements on all fronts.

By year's end, our overall *mortality index* (a ratio of actual deaths compared to those who might have been expected to die due to the severity of their conditions) ranked us 11th out of 108 UHC (formerly University HealthSystem Consortium) hospitals. This means more of our hospitalized patients are surviving when the medical odds were stacked against them.

UK HealthCare's performance in *core measures* shows significant improvement, ranking us 15th out of 108 UHC hospitals. Core measures are an indicator our patients are receiving the best evidence-based therapy for their conditions.

We have significantly improved our performance in hospital *patient safety indicators* (PSIs). Our rankings for all six PSI metrics

# "We exist to complement, support and improve Kentucky's health care system."

— Michael Karpf, MD, Executive VP for Health Affairs

improved over our UHC peers. Our hospitals are increasingly safer environments for our patients.

As for efficiency, our *length of stay* (LOS) index – a measure of patients receiving the right care as quickly as possible – was 1.0056 this year; improved over the 1.08 average of fiscal year 2012.

UK HealthCare's *patient-centeredness* scores also improved with 72 percent of our surveyed patients ranking us a 9 or 10 for overall care. This is a true testament to the exceptional work of our staff and physicians and despite difficult conditions created by the high demand for our services.

To help maintain our focus on quality, safety, efficiency and service, we instituted quarterly quality meetings to which all faculty and staff are invited. These meetings highlight our progress and ensure that our management teams understand the high priority we place on these improvements.

In addition this year, under the direction of Chief Medical Officer Bernard Boulanger, MD, we launched a quality section on our website, *ukhealthcare.uky.edu/quality*, to which we are posting key metrics for our patients seeking more information.

### Third-party endorsements increase

Added to our own efforts to monitor, measure and improve quality, we are fortunate to have additional feedback on the quality of our programs from a variety of credible organizations. These third-party endorsements signal the progress we are making.

- Chandler Hospital ranked No. 1 in Kentucky by U.S. News & World Report in July 2012 – 10 UK specialties ranked high performing: cancer; diabetes & endocrinology; ear, nose & throat; gastroenterology; geriatrics; gynecology; nephrology; neurology & neurosurgery; pulmonology; urology.
- 116 UK physicians included on the Best Doctors in America<sup>®</sup> list for 2013. Only 5 percent of doctors in America earn this prestigious honor.
- Gold Plus Award from the American Heart Association and American Stroke Association in 2013 for commitment to evidence-based practices in treating stroke.

- UK Comprehensive Epilepsy Center qualified again as a Level 4 center, the highest level awarded by the National Association of Epilepsy Centers.
- UK is one of fewer than 30 centers nationwide certified to implant the Total Artificial Heart<sup>™</sup>, and the first to do so in Kentucky.
- Chandler Hospital earned the 2012-13 Consumer Choice Award for Lexington-Fayette County from National Research Corporation.
- Awarded Excellence in Life Support by the Extracorporeal Life Support Organization (ELSO).
- UK HealthCare designated a center of excellence in select services by major insurance companies.

#### Ensuring a strong financial position

Despite an exceptional operating margin in 2013, UK HealthCare's future financial stability requires us to reduce our cost structure. Health reform will bring significant reimbursement challenges. Yet, regardless of the reimbursement pressures we face, we remain committed to making ourselves indispensable to citizens of Kentucky and beyond.

To do so, we must invest aggressively in people, programs, equipment and facilities; \$100–\$120 million should be invested each year to maintain our position as a regional referral center in the state's evolving health care system.

#### Managing increased patient volumes

In light of the growing demand for our services, a decision was made in 2013 to "fit out" a third floor within the new Pavilion A of Chandler Hospital for patients of the UK Gill Heart Institute. We expect that floor to open in 2015.

Growing patient volumes are also being seen in the outpatient setting. Overall we saw a 3.5 percent increase in patient visits in the 2013 fiscal year. In 2009 we launched a Patient Access Center to provide better access to UK's specialty and primary care clinics. Today, more than 80 percent of our clinics use the center for scheduling and registration, and satisfaction among patients regarding the ease of scheduling appointments for our services is nearing the 90th percentile.

# "Quality has many dimensions, and we are aggressively pursuing improvements on all fronts."

We are also implementing an ambulatory electronic health record (AEHR) in our outpatient clinics – completing the transition in 55 percent of our clinics by year's end. This \$60 million initiative ensures we will meet federal regulatory requirements and supports the streamlined integration of our inpatient and outpatient services we envision.

## Seeking the greater good

Given our position as the larger of the state's two academic medical centers, we keenly feel a responsibility to support the state's overall health care system. Many of our successes in 2012-13 highlight this commitment to collaboration, relationships and building a comprehensive system of care for those living in Kentucky.

Long our region's only Level I trauma center for adult and pediatric patients, we offered expertise and guidance as Kentucky developed its first-ever trauma system. You can read about the new Kentucky Trauma Care System on page 12.

In February 2013, interventional cardiologists of the UK Gill Heart Institute performed the first of 30 minimally invasive transcatheter aortic valve replacement (TAVR) procedures for the year, extending needed valve replacements to those whose age or condition would have previously excluded them (see page 18). Throughout the year, the UK Gill Heart Institute worked closely with the Appalachian Regional Healthcare (ARH) system, driving toward an arrangement that will see UK playing a key role in the provision of cardiovascular services within Eastern Kentucky (see page 14).

Fiscal year 2013 also saw UK HealthCare in discussions with two entities to improve the overall provision of care. UK began discussions with Shriners Hospitals for Children–Lexington to explore the possibility of relocating critical children's services to a new Shriners outpatient facility built on land leased from UK, collaborating even more closely on pediatric care and using the facilities of Kentucky Children's Hospital when Shriners patients require hospitalization. UK also signed a letter of agreement with the Commonwealth to manage Eastern State Hospital when its new facility opened in September 2013. This allows behavorial health treatment to be better integrated with physical health, an arrangement considered transformative for people with severe and persistent mental illness.

Finally, as UK HealthCare pursues strategies to increase access, one ongoing initiative has been the recruitment of subspecialists. That initiative continued in 2013 with the recruitment of specialists such as Patrick O'Donnell, MD, the region's only orthopaedic oncologist; Lars Wagner, MD, pediatric hematologist/oncologist; Robert Dillard, MD, pediatric gastroenterology and nutrition; and Terrence Barrett, MD, gastroenterology, hepatology and geriatrics.

## Improving the very fabric of our service

Chief Nurse Executive Colleen Swartz, DNP, and UK Nursing leadership embarked this year on a far-reaching effort to articulate a fresh statement of Nursing's mission, vision and values. Nurses from all corners of UK HealthCare were engaged and the result inspires and energizes our overall patient-centeredness efforts (see pages 6 - 11).

As I wrote in my letter to employees at year's end, we have been successful and our success can be attributed to one factor: the commitment and dedication of the people of UK HealthCare. I doubt any other academic medical center can express the same level of growth, success, improvement and future vision.

Our commitment to Kentucky and the health of its people is evident in every action, every decision. Promise kept.

Michael Range

Michael Karpf, MD Executive VP for Health Affairs UK HealthCare<sup>®</sup> / University of Kentucky

Barbara Young, chair of the UK Board of Trustees University Health Care Committee

University Health Care Committee of the University of Kentucky Board of Trustees As of June 30, 2013

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# A half century of service to the Commonwealth

Fifty years ago in Kentucky, who would have envisioned having a hospital like UK Albert B. Chandler Hospital or a health system like today's UK HealthCare? Or, who could have foreseen the advances that would be made in medicine? It's just unbelievable how far we've come.

In April 2012, Chandler Hospital completed 50 years of service to the Commonwealth. The College of Medicine celebrated 50 years in 2010, the College of Dentistry marked 50 years in 2012. In the 1950s, Gov. "Happy" Chandler had many reasons to urge the Kentucky legislature to establish this center and foremost were Kentucky's intractable health issues. While today we can see real progress, we also recognize that we still have more to do to address our state's health care needs.

UK HealthCare is growing to meet demand and provide quality medical care and service to all Kentuckians. We are even beginning to draw those in need of very advanced specialty care from beyond our state's borders. Our growth may be somewhat surprising to some, yet it is absolutely the result of strategic thinking applied to the need.

By establishing regional networks and partnerships with other hospitals, we are experiencing growth that has led us to ask for and receive approval to finish a third patient care floor in the new hospital pavilion. We have planned for health care reform and the partnerships we've formed have positioned us well to serve not only Kentuckians but also our neighbors. Communities seem to be receptive to our offer of assistance, and UK has done a good job of fostering those relationships.

As a committee of the UK Board of Trustees, our role is to ensure the university is focused on the essentials: quality, patient satisfaction, safety and efficiency. We are committed to ensuring our patients receive the care they need and that the quality is world class. The number and caliber of third-party endorsements that have been coming our way are a testament to the improvements we've noted in every area of UK HealthCare. Premier among these is the National Cancer Institute designation received in July 2013. This is the "gold standard" of endorsements and is already drawing important research and funding.

Gov. Chandler's dream has been realized and is still being realized. And with foresight learned from his example, we are hard at work planning for the next 50 years.

Barbara low

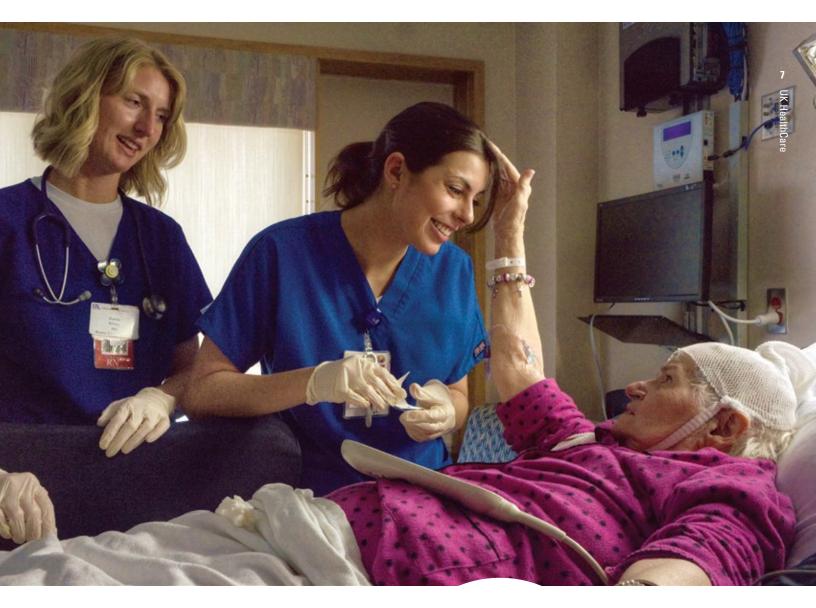
Barbara Young, Chair University Health Care Committee of the UK Board of Trustees

"We must see those we care for not just as patients but as people and families who need to be supported and reassured that we truly are invested in their care."

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- Kathleen Kopser, RN, MSN, Senior Nurse Administrator

# Nursing is a calling, a privilege and an honor



Nurses transforming care at the bedside include (at left) Matthew West, RN, and Sandra Reagan, RN, at Chandler Hospital. Above, Carrie Silvey, RN, (left) and Alisa Nesta, RN. This year nurses from all areas of UK HealthCare engaged in a wide-ranging discussion of what it means to be a UK nurse. Their discussion evolved into refreshed mission, vision and values statements that provide a thoughtful framework for a role that lies at the core of patient care.

UK nurses were also photographed this year as they went about their day-to-day activities. These pages provide only a snapshot of what UK nurses are doing and thinking as they go about putting what they believe about nursing into practice every day.

## Mission

Provide leading-edge patient care while advancing professional nursing and practice.

## Vision

Leading the way for every patient, every time.

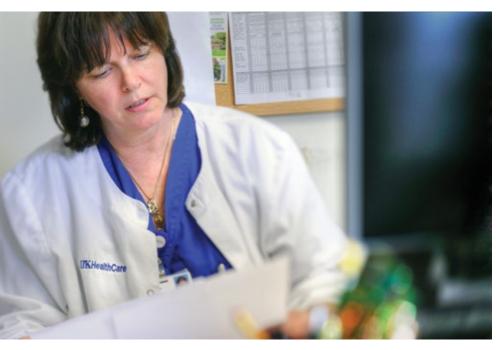
Gail Starnes, RN, (below) and other UK nurses become expert at seeing patients as individuals. Lela Karabashyan, RN, (bottom, left) ensures Nursing's values are represented in the surgical setting, while Tracey Robinson, RN, (bottom, right) does the same in the Neonatal Intensive Care Unit.

# "Caring begins with a fundamental belief in people." – Kristen Swanson's Theory of Caring





"Being a nurse is, at its core, about people caring for people. Nursing is a very challenging and rewarding profession. As nurses, we are committed to providing the very best care for our patients and families – providing excellent care, every day, every patient, all the time." – Colleen Swartz, RN, MSN, MBA, DNP, Chief Nurse Executive



Ellen Linder, RN, (top) and Juanita Burchett , RN, (above) work at the core of patient- and family-centered care.

## Values

- Empowerment to do what is best for our patients and further the practice of nursing.
- **Teamwork** because we know patients do better when we work together on their behalf.
- Surrounded by Innovation and Learning.
- Everything we do even the way we are building our facilities is about **Patient-Centered Care.**
- Evidence-based Practice ensures we are always providing proven, effective and safe patient care.

## Nursing philosophy

Our work as nurses is an honor and we strive for continuous improvement in order to provide excellence in all that we do. Nursing care at UK HealthCare is delivered in a complex environment that supports patient care, education and research. Nursing care is our top priority as we participate in each aspect of the mission. Teamwork is critical for nurses like Kelsey Jobe, RN, and Katie Davis, RN, working in the UK Chandler Emergency Department (right).



Excellent care requires interaction and collaboration like that found (above, left to right) among Shirley Bond, RN; Anne Caldwell, RN; Yolanda Coleman, RN; Jennifer Rogers, ST; Nurfeta Pandzic, ST; and Tammy Lyons, RN, of the Center for Advanced Surgery. In the Central Monitoring Station (right), Alicia Raulinaitis, RN, works with care teams in both hospitals, while Paul Mudrak, RN, works with colleagues from all disciplines at Good Samaritan Hospital.





"As a Level I trauma center and a regional referral center, we provide high-level nursing care that no one else can."

– Darlene Spalding, RN, MSN, Senior Nurse Administrator

# UK HealthCare takes the lead in state's first trauma system

n October 2012 UK Albert B. Chandler Hospital and Kentucky Children's Hospital became two of the first 10 hospitals accepted to the first-ever Kentucky Trauma Care System.

"In many ways, the new trauma system is the most significant advancement in the health of Kentuckians in the last 20 years, and lives will be saved because of it," said Andrew Bernard, MD, medical director of the UK Trauma Program and chair of the Kentucky Trauma Advisory Committee, which oversees the Kentucky Trauma Care System.

The landmark system is creating a coordinated network of hospital-based trauma centers that stand ready to assess, treat and transfer trauma patients – saving lives and reducing disability throughout the Commonwealth. Participation in the system is voluntary.

UK HealthCare is at the forefront of the new trauma system, sharing its expertise with hospitals, emergency medical services (EMS) and the public.

#### Highest level of trauma care

Chandler Hospital and Kentucky Children's Hospital are the only Level I trauma centers in eastern and central Kentucky, and two of just four Level I trauma centers statewide. UK HealthCare is the only health system in Kentucky, and one of about 25, nationwide, with both adult and pediatric Level I trauma centers.

Level I trauma centers provide the highest level of trauma care. Staff and services are available 24 hours a day. Level I centers conduct trauma research, provide trauma training to medical professionals, and offer community outreach and prevention programs.

The American College of Surgeons verifies trauma centers as Level I, II or III based on strict criteria. In addition, the Kentucky Trauma Advisory Committee developed Level IV criteria to verify trauma centers that stabilize patients and transfer them to a higher-level trauma center, if need be.

#### Getting patients to the right place at the right time

"The mortality from trauma depends on where you are when you're injured," said Bernard. For example, someone badly hurt in a car crash is much more likely to survive if the crash occurred in Lexington or Louisville, close to a Level I trauma center.

The Kentucky Trauma Care System aims to change these odds.

Its mission is to "get the right patient to the right place at the right time," said Bernard. "It is important for a severely injured trauma patient not to linger at a hospital not equipped to deal with their injuries before being transported to a trauma center. It is also important that a patient with non-life-threatening injuries – that can be appropriately cared for at a Level III or IV center – not be automatically sent to a Level I trauma center."

"It's best to keep patients in local communities if those communities have the resources to take care of them," explained Bari Lee Mattingly, manager of UK HealthCare's trauma program and a member of the Kentucky Trauma Advisory Committee.

To this end, the Kentucky Trauma Care System has four main agendas: establishing and verifying more trauma centers; developing and sharing assessment, treatment and transfer protocols; educating hospital and EMS staff; and collecting data in order to monitor and improve trauma care.

"Mature trauma systems will decrease mortality rates by 15 percent – that's close to 400 lives saved a year in Kentucky," said Bernard. "We'll also improve outcomes in those who survive. With this system in place, people who may have died due to their injuries in the past will be saved and patients who would have been severely disabled will recover and return to their normal lives."

#### Champions of trauma care

UK HealthCare has been a guiding force in the Kentucky Trauma Care System, helping smaller hospitals "along the journey to becoming trauma centers," said Bernard.

He and other UK trauma program staff share assessment, treatment and transfer protocols with other hospitals and EMS; teach advanced trauma life support (ATLS) to physicians; provide educational programs for nurses and EMS professionals; assist hospitals in the performance-improvement process; and offer injury-prevention and outreach programs to the public.

"We help hospitals give the best trauma care they're capable of giving," explained Bernard.

In situations requiring transfer to a Level I trauma center, "we want to ensure that patients receive the best care possible before they come to us," added Mattingly.



Using expertise gained from leadership of the UK Level I Trauma Center, Andrew Bernard, MD, and Bari Lee Mattingly were among UK faculty and staff who helped develop the state's first coordinated system of trauma care in 2012. UK is one of a handful of centers nationwide offering the highest level of both adult and pediatric trauma care.

#### **Early successes**

"The Kentucky Trauma Care System is creating a culture dedicated to optimal treatment of the injured: one that's predictable, reliable, optimal and rehearsed," said Bernard.

In 2010, four hospitals in the Commonwealth were verified trauma centers; now there are 10. In addition, the trauma transfer system is becoming more efficient, and "trauma patients who need high-level complex surgery are getting it faster," he added. "Historically, trauma patients spent two hours in a community hospital before being transferred to a Level I trauma center. Now it's 40 minutes."

Many community hospitals are now working toward Level IV verification, and Bernard sees Level III verifications on the horizon, as well.

As the Kentucky Trauma Care System comes into its own, Bernard and UK HealthCare's trauma program will continue to act as trauma-care ambassadors, helping other hospitals and EMS providers save lives and reduce disability throughout the Commonwealth.

# Trauma n Kentucky

"Trauma is a monstrous health problem," said Andrew Bernard, MD, medical director of the UK HealthCare trauma program and chair of the Kentucky Trauma Advisory Committee, which oversees the Kentucky Trauma Care System. "It's the No. 1 cause of death among Americans and Kentuckians under the age of 45. In terms of loss of productive life years, it's more costly than cancer, heart disease and stroke combined because it affects a young population."

In 2012 traumatic injuries killed 2,518 Kentucky residents and led to 303,822 emergency department visits and 20,467 hospitalizations throughout the Commonwealth, according to preliminary data from the Kentucky Injury Prevention and Research Center.

Trauma refers to motor vehicle, motorcycle, bicycle and pedestrian collisions; falls; blunt trauma; burns; drowning; animal bites and attacks; farming and industrial accidents; stabbings and gunshot wounds; and natural disasters. "The vast majority of trauma is preventable," noted Bernard.



# Partnering for heart health in southeastern Kentucky

During fiscal year 2013, the UK Gill Heart Institute, Appalachian Regional Healthcare (ARH) and Appalachian Heart Center (AHC) finalized plans to join forces to provide a new level of cardiovascular care to southeastern Kentucky's heart patients.

When a regional academic health center and community medical providers come together, the synergistic result is highcaliber care close to home, with fast referrals and a seamless continuum of services. The goal is to save lives in a region with one of the nation's highest rates of both heart disease and death from heart disease.

The goal of the collaboration is to save lives in a region with one of the nation's highest rates of both heart disease and death from heart disease.

The new collaboration will extend the Gill Heart Institute's subspecialty expertise into southeastern Kentucky, augmenting ARH's and AHC's excellent cardiovascular services. The Gill Heart Institute in Hazard, partnering with the ARH Regional Medical Center in Hazard, will become the hub of cardiac care in the region, with "spokes" reaching into ARH's smaller community hospitals.

These arrangements will "provide cardiology care throughout a region where people may have difficulty accessing care," said Joseph Claypool, associate vice president for clinical network development at UK HealthCare. "We'll provide state-of-theart services in the community so there is no need for most to come all the way to Lexington since travel can be a hardship for patients and their families."

Claypool foresees fewer patients being transported by ambulance or helicopter to Lexington. But when the need does arise, "it will be a quick, colleague-to-colleague referral" between physicians in partnering health systems, he said.

Local care and prompt referrals can be lifesaving during a heart attack, when lost minutes mean lost heart muscle.

# UK Gill Heart Institute and ARH to jointly manage ARH cardiovascular care

By agreement, the UK Gill Heart Institute and ARH will jointly manage cardiovascular services at Hazard ARH Regional Medical Center and five other ARH hospitals throughout southeastern Kentucky: Harlan ARH Hospital, Mary Breckinridge ARH Hospital (in Hyden), McDowell ARH Hospital, Whitesburg ARH Hospital and Williamson ARH Hospital.

UK's Gill Heart Institute and ARH will assess the region's needs for cardiology services and recruit cardiologists and surgeons accordingly. The groundwork was laid in 2011, when Gill Heart Institute cardiothoracic and vascular surgeon Edward Setser, MD, opened a practice in Hazard. Multispecialized, Dr. Setser performs lung, peripheral-vascular and open-heart surgery – including bypass and valve replacement – at ARH Regional Medical Center. No longer must patients and families travel to Lexington for these lifesaving procedures.

"This is a tremendous benefit for patients," said Dr. Setser. "It's not easy getting up to Lexington. Then there's the emotional and financial stress of being away from home."

In August 2012 the Gill Heart Institute brought cardiologist Jeffrey Brumfield, MD, to Hazard to perform electrophysiology procedures, which correct heart-rhythm disorders – another

UK worked throughout fiscal year 2013 to develop a collaboration with ARH Regional Medical Center in Hazard, Ky., (left) and cardiologists of Appalachian Heart Center (lower right) to better meet the needs of heart patients in Eastern Kentucky.

### boon for local patients.

Equally important, the Gill Heart Institute and ARH will jointly develop uniform quality-control procedures and standards so that heart patients receive the same excellent care, regardless of location. The partners will also develop transfer protocols to ensure prompt referrals from ARH's smaller community hospitals to its regional hospital in Hazard – or, if need be, to UK Chandler Hospital in Lexington, the destination for highly complex procedures such as heart transplant, cardiac-assist device implantation and percutaneous aortic valve replacement.

#### AHC cardiologists to join Gill team

In addition, AHC's cardiologists are joining the Gill Heart Institute team. Vidya Yalamanchi, MD, Rao Podapati, MD and Srini Appakondu, MD – longtime trusted cardiologists in southeastern Kentucky – will become UK College of Medicine faculty members. The AHC sites in Hazard, Harlan, Hyden and Cumberland will become UK HealthCare clinics.

AHC provides diagnostic imaging and testing, pacemaker implantation, and diagnostic and interventional catheterization such as angiography, angioplasty and stent placement.

The group has served southeastern Kentucky and ARH patients since 1986, and it helped start ARH's cardiac catheterization program in Hazard.

With the combined talents of the Gill Heart Institute, ARH and AHC, "whether the patient needs a basic echocardiogram or stress test, or anything from cardiac catheterization to a heart transplant, we have a pipeline of care," said Hollie Harris-Phillips, vice president of corporate strategy at ARH.

## A mission in action: helping local hospitals help Kentuckians

The new cardiology collaborations are an outgrowth of UK HealthCare's core mission: supporting local providers in order to improve access to quality care for all Kentuckians.

"Appalachian Regional Healthcare has been taking care of cardiovascular patients for more than 50 years, and our goal is to enhance that care," said Harris-Phillips. "Having a tertiary partner that provides high-acuity care is key, and we believe UK HealthCare is that partner. They believe that what can be treated locally should be treated locally, and they're able to bring their resources to our hospitals."

This integrated approach to care delivery will not only save lives but also save dollars. The cardiology arrangements are

structured to treat "the appropriate patient in the appropriate setting," explained Claypool. "If a patient can be treated at an ARH hospital, that's more cost-efficient than caring for him or her at an academic health center like UK HealthCare.

"The nature of our outreach is based on what the community tells us is needed," he added. "We don't have a template or say, 'This is what you should do.' We ask how we can help and then go to work developing a solution."

The Gill Heart Institute–ARH–AHC collaboration exemplifies "the meaning of true partnership," said Claypool. "It's a win-win for everyone – especially southeastern Kentucky's heart patients."



UK cardiothoracic surgeon Edward Setser, MD, (right) and his team have made it possible for many patients from Eastern Kentucky to stay close to home for surgery and follow up.



Vidya Yalamanchi, Michael Karpf, Srini Appakondu, and N. Rao Podapati at the announcement that the Appalachian Heart Center will be managed by UK HealthCare.

"I like to say that my life began April 12, 1983, and was restored by my organ donor on July 7, 2012." – Dawn Nelson

# Rare triple-organ transplant gives life to Louisville woman

D awn Nelson had a lot to celebrate last summer on the one-year anniversary of her double lung and heart transplant at UK HealthCare. And celebrate she did, with friends and family gathering at her family home in Louisville July 6 to give thanks to the organ donor who made her renewed life a reality. "I like to say that my life began April 12, 1983, and was restored by my organ donor on July 7, 2012."

Before Nelson's rare combined heart-lung transplant, the then 29-year-old woman could barely walk from her bed to the bathroom, much less do simple chores. She only weighed 80 pounds. She was 18 when doctors told her she had systemic lupus erythematosus, 22 when diagnosed with rheumatoid arthritis. At 25, she developed pulmonary hypertension, a deadly disease that was destroying her lungs and causing her heart to fail. Her dreams of going to medical school and starting a family were shattered.

In 2010, she sought care from Wesley McConnell, MD, a transplant pulmonologist with Kentuckiana Pulmonary Associates in Louisville. In May 2011, after drug therapies failed to help, McConnell referred Nelson to the UK Transplant Center. She entered Albert B. Chandler Hospital in April 2012, knowing she would die there without a heart and double-lung transplant.

The eight-hour procedure by transplant surgeon and center director Charles Hoopes, MD, was the first of its kind in Kentucky in 15 years. It was the seventh such procedure done at UK since the transplant program began in 1964; only 27 combined heart-lung transplants were performed nationwide in 2011 (most recent year for available data).

"A lot of people like Dawn die waiting for a transplant; she was at the right place at the right time," McConnell said. "Dr. Hoopes took a chance on her and it worked out."

Nelson's regained health enabled her to re-enroll at the University of Louisville for fall 2013 as a junior majoring in biology. She shelved plans to be a doctor, instead choosing a career in crime scene investigation. "I want more time to enjoy my life and enjoy what I'm going to do, always remembering to celebrate my organ donor who gave me this gift."



Charles Hoopes, MD

# Transplant program one of collaboration

The success of Dawn Nelson's rare heart and double-lung transplant exemplifies the changing focus of the UK Transplant Center from emphasizing surgery to a regionalized view that includes the complex diagnosis and management of organ failure, as well as follow-up care after transplant surgery, explained Charles Hoopes, MD, transplant surgeon and center director. This requires close working relationships with communitybased physicians throughout the Commonwealth.

In November 2010, UK in collaboration with Norton Healthcare, opened up an outreach Transplant and Specialty Clinic in Louisville to provide convenient, comprehensive pre- and post-transplant care for patients such as Nelson. UK's Organ Failure and Transplantation Network works with local physicians throughout the region in the treatment of end-stage kidney failure.

"Organ failure is a public health issue," Hoopes said. "Through outreach and organ failure networks, we can impact the progression and management of diseases that may result in end-stage organ failure, increasingly improving patient outcomes and quality of life." This includes use of assistive bridging therapies that keep patients alive while awaiting donated organs, as well as efforts to improve organ donations.

#### **UK Transplants**

UK's transplant team performed 163 organ transplants in fiscal year 2013, including complex, combined organ transplants such as Dawn Nelson's double-lung and heart procedure.

Total
14
19
40
84
5
0
1

# Heart valve procedure offers lifesaving option for high-risk patients

At 89, Juanita "Trilby" Miller shopped for her own groceries and made the rounds to nearby stores in St. Albans, W.Va. But then she began to be short of breath, barely able to get from one store to the other without having to stop and rest.

Family physician Richard Hayes, MD, referred her to Charleston cardiologist James Pettit, MD. The diagnosis was aortic stenosis – a narrowing of the main heart valve. If the valve doesn't open properly, the heart cannot pump blood to the rest of the body. Because of her age, she was not a candidate for traditional valve replacement surgery, so Petit suggested she go to the Cleveland Clinic for a recently approved minimally invasive procedure called a transcatheter aortic valve replacement or TAVR.

# "The life-saving new technology and multidisciplinary team approach are revolutionizing care for our patients who have no other options."

— Susan Smyth, MD, UK chief of cardiovascular medicine and medical director of the Gill Heart Institute

"Instead, I called my daughter Mitzi in Lexington who told me they were doing this procedure there at UK," Miller recalled. Mitzi Eckerline, RN, is married to UK emergency physician Chuck Eckerline, MD. Another daughter, Margie Peurach, RN, is a preoperative nurse at UK, and daughter Molly Patrick, RN, is a West Virginia diabetes nurse educator. Son Max Miller works at Fed Ex in Charleston.

On Jan. 16, 2013, Miller saw John Gurley, MD, director of interventional cardiology at the UK Gill Heart Institute and the heart valve team leader. She had the new TAVR procedure on Feb. 4 and was sitting up in a chair and walking to the bathroom that evening. "I had no pain," said Miller. She was released from the hospital six days later. "Now I can walk farther, and I don't get short of breath."

Historically, people who weren't well enough to have traditional surgery would likely die without the valve replacement, explained Susan Smyth, MD, chief of cardiovascular medicine and medical director of the Gill Heart Institute. "Now, with advances in minimally invasive technology, our team can implant a new valve inside the patient's diseased native valve." The replacement valve is delivered by a catheter while the heart is still beating. The catheter is inserted through a small incision in the patient's femoral artery, the chest (as in Miller's case), or through the aorta.

"The lifesaving new technology and multidisciplinary team approach are revolutionizing care for our patients who have no other options," Smyth said.

# **TAVR** saving lives

The minimally invasive transcatheter aortic valve replacement program (TAVR) at the Gill Heart Institute is the latest addition to UK's comprehensive catheterbased structural heart program.

Nearly 40 TAVRs have been done at UK since the first case in November 2012, making it the largest TAVR program in the region. Clinical data from the national Partner trial is promising: The two-year mortality rate with TAVR for all causes of death is 43 percent, compared with 68 percent for patients treated medically.

Led by interventional cardiologist John C. Gurley, MD, the heart valve team of cardiologists, cardiac surgeons, advanced imaging specialists, cardiac anesthesiologists, nurse practitioners and care coordinators meet every two weeks to review patient cases and plan treatment

operating suite.

approaches. TAVR and other minimally

performed in UK's state-of-the-art hybrid

invasive heart valve procedures are

John C. Gurley, MD

"I had no pain. Now I can walk farther, and I don't get short of breath." – Juanita "Trilby" Miller

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"...UK does weird well, but I didn't know I was weird till I woke up in the ICU and found out the anesthesia team saved my life." – Shane O'Donley

# Quick response saves patient's life from rare anesthesia disorder

A rare genetic condition almost ended Shane O'Donley's life at 39 during surgery to repair his mangled knee. But a well-trained anesthesia team and a seldom-used emergency kit found in every operating room at UK HealthCare saved him from a condition he didn't realize he had.

"I have malignant hyperthermia (MH), which is pretty rare," said O'Donley, a public policy and grants manager at UK HealthCare.

The disorder is triggered by commonly used inhaled general anesthesia. During surgery, the patient's organs begin to shut down as the temperature spikes, blood becomes acidic, the heart races, muscles contract and carbon dioxide ( $CO_2$ ) levels increase. If not quickly treated, about 80 percent of patients will die. Most don't know they have the condition.

O'Donley's knee was injured when he was thrown over the handlebars of a motorcycle during a Memorial Day ride with buddies. He and his wife Tonya expected the surgery in June would repair two torn knee ligaments and the meniscus. It would be a routine outpatient procedure at UK's Center for Advanced Surgery. "I figured I'd be home by 3 p.m.," he said. Instead, he woke up in critical care at 2 a.m. the next morning, with a breathing tube down his throat.

"We knew from the beginning of the case that something wasn't quite right," said anesthesiologist Justin Wainscott, MD. Nurse anesthetist Liam Albrich noted the patient's increasing heart rate and  $CO_2$  level. When O'Donley's temperature spiked to 104, the team opened the emergency kit to prepare the only known antidote, a muscle relaxant called dantrolene.

"Giving that was like hitting a light switch, turning off the MH," Wainscott said. Other measures were taken as well, including lowering the patient's body temperature. Luckily, orthopedic surgeon Darren Johnson, MD, was just finishing the operation when the MH sparked so O'Donley's knee repair was complete.

O'Donley feels lucky the anesthesia team was trained to quickly react. He wears a medical bracelet that says he has MH so if surgery is ever needed again, doctors can modify his anesthesia.

"I've been told UK does weird well, but I didn't know I was weird till I woke up in ICU and found out the anesthesia team saved my life."

# **Great Catch Award**

Anesthesiologist Justin Wainscott, MD, and nurse anesthetist Liam Albrich, CRNA, received UK HealthCare's Great Catch Award for saving Shane O'Donley's life. The quarterly award recognizes UK HealthCare team members who intervene to prevent harm or potential harm to patients.

"It's been 25-30 years since we have had a case of malignant hyperthermia at UK," Wainscott said. Albrich said he had never seen a case of MH in his 13 years on the job. While MH occurs in only one in every 50,000 surgeries (more often in children), UK's team of anesthesiologists and certified anesthesia nurses regularly train to recognize MH and rapidly respond, using an emergency kit found in every OR. Every patient scheduled for surgery is asked questions to identify the risk for MH so that preventive measures can be taken. O'Donley had no known risk factors.

"This is a scary complication that we hope never to see," said Albrich.

Wainscott added, "We hate that this happened to Shane, but we're glad the team was prepared."



Justin Wainscott, MD, and Liam Albrich, CRNA



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Annual Report 2013

# University of Kentucky College of Medicine

**UKHealthCare**。

# Mixing education with action



MISSION OF THE UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE

The mission of the College of Medicine is to develop knowledge, skills and attitudes that promote professionalism, teamwork, life-long learning, empathy, scholarship, cultural sensitivity and leadership, with the goal of providing excellence in education, health care and research within the Commonwealth of Kentucky and beyond. Medical schools often have to function much like the physicians they produce, although their challenges are not patients and presentation does not involve diseases or conditions. Instead, they must wrestle with the larger issues of health care and society and the role an academic institution should play. In answering the questions raised, they work through a combination of education and action. As with all complex medical mysteries, a team approach may achieve the best results.

The University of Kentucky College of Medicine has a history of taking on these challenges. Our primary purpose is to teach medicine to future physicians, but we cannot do that in a vacuum. Instead, we add context to our teaching by creating academic programs that respond to some of the societal issues affecting medical practice – issues such as the chronic shortage of family physicians in rural Kentucky or the underrepresentation of minorities in the medical profession. At the same time, we pursue the translational research that advances our graduates' clinical capabilities.

In 2013, we continued to mix education with action in pursuit of our commitment to better health for the people of Kentucky. As you will see in this report, our efforts were rewarded with results and recognition.

### Helping Kentucky meet its physician shortfall

We admitted 118 first-year medical students for the 2012-13 academic year. That's our largest class ever. Our goal is to educate more physicians – especially primary care physicians who wish to practice in rural Kentucky. We are doing this because there is already a shortage of primary care physicians, and the need is only going to increase.

To meet a standard practice measure of 1,500 patients per physician – the current ratio of people per doctor in Kentucky is twice that number – we need to add 163 new primary care physicians each year between now and 2025. Today, however, all of the medical schools in the state combined have the capability of producing only 57. Those numbers do not include the additional impacts of the Affordable Care Act, an aging patient population or physician retirements – and 20 percent of all physicians currently practicing in Kentucky are more than 60 years of age.

Even so, the solution to serving the medical needs of the people of Kentucky involves more than numbers. It also requires novel approaches to disease prevention, professional recruitment, team-based patient care and cost-saving technologies. The college is a leader in these forward-looking discussions. Expanding our class size, while continuing to provide a first-class medical education, demonstrates that we are also taking action. "Expanding our class size, while continuing to provide a first-class medical education, demonstrates that we are also taking action."

#### Training students committed to rural practice

The shortage of primary care physicians is especially acute in rural Kentucky. This is a serious problem, because Kentucky is the sixth most rural state in the nation, and 43 percent of our population lives in rural areas. To help address this shortage, five years ago we launched the Rural Physician Leadership Program. Based in Morehead, it is a cooperative venture with St. Claire Regional Medical Center and Morehead State University. Our medical students who are interested in a rural family practice spend their third and fourth years in Morehead. They experience a hands-on preview of rural medicine, and they get to know patients as people, not just subjects, because they see them on a regular basis. They can, for example, become involved in the entire course of an illness or a pregnancy.

We begin recruiting promising students as early as high school. Only a select few ultimately choose to participate in the program, and its early graduates are still in residencies. We hope that all of them will decide to practice in Kentucky. They may still be few in number, but interest in the program is growing, and their future impact will be very large.

#### **NCI designation for Markey Cancer Center**

This past summer, we received the exciting news that the UK Markey Cancer Center was being named a National Cancer Institutedesignated cancer center. Earning NCI designation did not happen quickly or easily. The faculty and staff of the Markey Cancer Center spent several years building research capacity, in both people and facilities, in preparation for the rigorous review process. Director Mark Evers, MD, and the Markey Cancer Center team did not believe a state with some of the highest incidences of cancer should also be a state without an NCI-designated cancer center. So, they undertook what many thought would take far longer to achieve. We could not be happier with their success.

#### **UKMED** program attracts minority prospects

Continuing the college's commitment to increasing diversity in medicine, the student-led UK Minority Education Development (UKMED) for Prospective Medical Students Program held its annual recruiting of underrepresented minority premedical students. UKMED, established in 2010, invites juniors and seniors to campus for a preview of the medical school experience. The program's goals are to increase interest shown by minority students in the medical profession, increase the number of minority student applicants to the college and increase matriculation of minority students to the college.

The two-day event, which attracted more than 30 participants, began with a welcoming dinner and a program overview. The following day, students participated in abbreviated anatomy and physiology lectures, experienced patient presentations by physicians and had the opportunity to converse with current minority medical students during a lunch panel discussion. They also received tips from admissions and financial aid staff on how to succeed during the admissions process.

## Leadership in medical education, research and practice

As always, there is much more to tell. In the following pages, you will find early feedback on our groundbreaking new curriculum for first- and second-year students, an overview of our recent research accomplishments and profiles of alumni of distinction, including the new president of the American Medical Association.

The alumni group, in particular, personifies our far-reaching institutional impact. We educate and support outstanding clinical practitioners and research scholars whose work so ably serves the people of Kentucky and elsewhere across the country. But we also produce leaders, recognized by their peers, who elevate the entire medical profession. When they are in the spotlight, so is the UK College of Medicine. It is both rewarding and humbling, and it inspires us to maintain our focus and work even harder.

**Frederick C. de Beer, MD** Dean, College of Medicine Vice President for Clinical Academic Affairs Professor of Internal Medicine, University of Kentucky

#### EDUCATION

# Teaching medicine gets a makeover

Chris Feddock, MD, MS Medicine - Pediatrics The UK College of Medicine has produced more than its share of outstanding physicians since it opened its doors a half century ago. Despite that, first-year students arriving in the fall of 2012 were greeted by a completely new way of teaching medicine. Recognizing that medical science and medical practice are both constantly evolving, the college's leadership has revamped the first two years of the curriculum to provide students with a synergistic approach to learning that it believes will better prepare them for their future careers.

Under the traditional approach to medical education, basic science was taught one discipline at a time, and clinical applications rarely were discussed in the classroom. Normal structure – anatomy, biochemistry and physiology – was taught in the first year. Second-year students were taught abnormal structure – pathology and pharmacology. It wasn't until the third and fourth years, when students entered clinical settings, that the knowledge gained in the first two years was applied to the treatment of patients.

The biggest change in the new curriculum is that clinical relevancy is now part of a student's learning experience from the first day forward. Even in the initial courses that focus on foundational normal structure, the emphasis is on the application of that knowledge to the care of patients. With each system, students are given a broad frame of reference, encompassing normal and abnormal structure and function, diagnosis and treatment.

A good example of how the material is now taught would involve treating a hypothetical patient with a kidney infection. In the past, a student would have had to gain knowledge about the infection, the bacteria that caused it and the drug needed to treat it from three different courses. Now all of the information will be obtained during the single course that focuses on the kidneys. The aim of the new curriculum is for the student to gain a better understanding of how the different disciplines fit together and their relevance to treating patients.

#### **Optimal delivery of material**

"It's part of a national trend," said Chris Feddock, MD, assistant dean for curriculum. "Many colleges of medicine are trying to figure out how to optimally deliver the material and have students retain it for the rest of their careers. We have looked at what other medical schools are doing, but the curriculum we have developed, and how it is delivered, is designed specifically for our needs at the University of Kentucky College of Medicine."

A key element to the new curriculum is that all courses are taught by two faculty members – a PhD, who is the basic science expert, and an MD, who is the expert in clinical science. "That ensures that we make the bridge between medical science and medical practice," said Feddock. "That integration will ultimately benefit patients in our students' future practices, and our long-term goal is better patient outcomes."

Chris Feddock, MD, assistant dean for curriculum, is monitoring the impact of a new curriculum that ensures material taught is clinically relevant from the first day.

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## One student's story

"It took the whole village of Covington, Ky., to raise me," said Kayla Kinker, "so what I can give back is important."

For most of her life, Kinker, a first-year medical student, was an unlikely prospect for giving back much of anything. She was the daughter of divorced parents, and her family story included poverty, alcoholism, drug abuse, robberies, evictions and more. At one point, lacking clean clothes to wear to high school, she stopped going to classes on a regular basis. "Even with a 50 percent attendance rate, I still got straight A's," she said.

Kinker had a strong spark of intellect, paired with an interest in science. Some of her high school teachers and counselors saw her potential, and they stepped in to offer help. "They pointed me in the direction of programs that could help me get out of the trap I was in and pursue my dream of a career in medicine," she said.

Between her sophomore and junior years of high school, Kinker attended UK's **Health Careers Opportunity Program**, which is designed to help disadvantaged adolescents get on a track to a career in health care. She also enrolled in the International Baccalaureate Program, which offers advanced courses with college credit to promising high school students. And she spent her senior year living at Welcome House, a women's shelter that teaches employment skills and life skills. The result: she graduated with honors at the top of her class.

That summer, before heading off to Berea College, Kinker attended UK's **Professional Education Preparation Program**, which provides direction to students interested in health care careers in Kentucky's underserved rural areas. At Berea, she majored in science, graduating with a biology degree with concentrations in cellular and molecular biology. She also conducted research during summer vacations, including one summer at UK, where she focused on genetics and molecular science.

Kinker's dream came true when she entered UK's College of Medicine and received her white jacket. She was in special company, too. One



Kayla Kinker, COM Class of 2017, with classmate and husband Dominic Suma. The two were among 136 students who entered medical school in 2013 and are benefitting from a new approach to teaching medicine.

of the other first-year medical students was Dominic Suma, whom she met at Berea and married in May 2013. The couple, part of the second class to go through the College of Medicine's new curriculum, also enrolled in the **Rural Physicians Leadership Program**.

"I am having a blast because I love to learn," said Kinker, "and we are both developing an appreciation for the needs of underserved rural communities. With my background, I think I can bring something special to patient care. Our long-term goal is to open a family or community health center in rural Kentucky that offers low-cost or no-cost care to people who are uninsured or underinsured. So many people helped me get here, and I'm all-around excited and grateful. I really want to give back and help others."

The new curriculum makes use of multimodal learning technology that enhances classroom and course management. Working with the educational technology company Echo 360, the college digitally recorded all of the lectures given throughout the first two years. Students can revisit any of the lectures at any time to make sure they understand the material. The college also received a grant to test a new Echo 360 product called LectureTools, which permits real-time direct communication and interaction between students and the lecturer.

## The challenge of change

Faculty members have enjoyed working together to develop the new curriculum. "Change is always a challenge," said Feddock, "but the whole process has freed them up to think in new ways about how to make their courses more effective."

How effective they are will be determined in two ways. The first will be feedback from both students and faculty. The second will be more objective measures, such as medical licensing examination scores, graduate rates and match ratios. The college believes that a continuing focus on both excellence and relevance in medical education will enable it to attract the best and brightest students and help it provide the highest quality of health care to the people of Kentucky.

Feddock emphasized that the new curriculum is really a beginning, not an end. "We view the process as continuous quality improvement," he said. "We're always thinking, 'What's the next step?' Comments from students and faculty will be very important. We want to offer them a better experience each year."

# Research excels despite funding cuts

Each year, the College of Medicine plays an increasingly important role in both basic and clinical research. Our world-class scientists make discoveries that push the boundaries of medical knowledge, diagnosis and treatment – within Kentucky and around the globe.

It takes dedication, and it's expensive. Unfortunately, funding, not biomedical discovery, has become the greatest challenge our talented researchers face. Funding dropped from \$116.9 million in 2012 to \$98.8 million in 2013, with almost all of the reduction the result of sequestration-related cuts in National Institutes of Health (NIH) grants.

Funding, not biomedical discovery, has become the greatest challenge our talented researchers face.

"The cuts say nothing about the University of Kentucky and everything about the current state of biomedical research," said Alan Daugherty, PhD, DSc, senior associate dean for research. "It has been difficult for everyone, and we have come out better than most. One of our biggest benefits is that we have a health care system that is doing well and recognizes the importance of research. That has enabled us to continue recruiting top talent."

The Markey Cancer Center contributed two bright spots with the announcements that it would be receiving a prestigious National Cancer Institute designation and that it would be joined by a highly respected team of metabolic cancer researchers. Outstanding work in cardiovascular science, neuroscience and behavioral sciences also achieved recognition, said Daugherty. In addition, the college continues to do groundbreaking research under a five-year NIH Clinical Translational Science Award received in 2011.

"Despite the funding difficulties, inspirational things are happening here," said Daugherty. "Researchers meet regularly to discuss collaborative efforts and how to get more done with what we've got. Besides, science doesn't happen in a vacuum anymore. The sharing of equipment and space promotes interaction and collaboration that might not otherwise happen. We also have a great environment for research; most of it is interconnected and modern. And with our translational research efforts, we're making discoveries that can be converted to real health benefits."

Alan Daugherty, PhD, DSc, senior associate dean for research, says despite funding difficulties, "inspirational things" are happening at UK.

# Scholars in training

UK's Center for Clinical and Translational Science offers students, staff and early-career faculty members a variety of research-oriented programs designed to broaden their experience, build their skills or enable them to qualify for full NIH grants and other extramural funding. Participants receive a mix of training, education and mentoring that enables them to advance their careers and pursue their personal goals. Similarly, the UK MD/PhD Program prepares students for careers as physician-scientists who integrate clinical medicine with groundbreaking research discoveries.

**Steve W. Leung, MD**, an assistant professor of medicine, is in two such programs – the KL2 Research Scholar Award, which develops young faculty researchers, and the Graduate Certificate



Steve Leung, MD, was drawn to UK by the advanced imaging program.

in Clinical and Translational Science (GCCTS), which helps participants bridge clinical and research experiences – as he pursues a career in advanced cardiovascular imaging research.

Leung joined the UK College of Medicine faculty because of its advanced imaging program. "Not many institutions have both high-level cardiac CT and MRI capabilities," he said. "The exciting technology

changes happening here made the cardiology faculty position I was offered even more attractive.

Advanced imaging gives you an opportunity to diagnose problems in the early stages. This can lead to better treatments and better patient outcomes."



Matthew Bush, MD, believes his research improves the care he delivers.

Another young faculty member in the KL2 program, **Matthew L. Bush, MD**, an assistant professor of otolaryngology, head and neck surgery, is also enrolled in the college's Clinical and Translational Science PhD program. A native of West

Virginia, he describes himself as a "first-generation physicianscientist" who was destined for surgery.

"Being from a small Appalachian town in West Virginia, I really connected with the patients here," he said. "I felt like I was at home. There is a strong sense of commitment to serve Kentuckians, and that resonates with me."

The synergy of his academic pursuits brings special meaning to this early stage of his career, Bush said. "It's a tripod of research, clinical care and education. I'm learning to think critically and to solve problems in collaboration with my colleagues using the scientific method." At the same time, he said, "my research influences the care that I deliver. My goal is to improve the diagnosis and treatment of children from Appalachia who have hearing loss. Our research seeks to increase the access to care and ultimately change the trajectory of a child's communication development."

## Seeking early clues to Alzheimer's disease

**Lucas Broster** is very comfortable taking a multidisciplinary approach to investigating medical mysteries. As a student in the MD/PhD Program, he is researching early diagnosis of Alzheimer's disease. The program's goal is to give students a broad mix of clinical and research skills.

A Lexington native, Broster knew he would return for his medical training. "The excellent environment at the University of Kentucky for neuroscience, and for aging neuroscience in particular, made the choice simple for me," he said. Broster's PhD research, which is being conducted through the Center for Clinical and Translational Science, explores the disease's early cognitive pathology in the hope that it may generate insights into clinical therapy.



Lucas Broster is pursuing MD and PhD degrees with an interest in aging neuroscience.

# College's impact at state and national level is impressive

# Faculty and graduates in key roles

The College of Medicine's impact on the health of the people of Kentucky cannot be truly measured – especially when physicians, in the course of their practice, help their patients prevent or minimize illness and disease. Nonetheless, we believe that each year we admit a select few students who, after they graduate, will collectively change the lives of millions in the course of their careers.

Many will choose to stay and practice medicine in Kentucky. Of those, a large number will join UK HealthCare's clinical staff, providing outstanding service at UK Chandler Hospital, Good Samaritan Hospital, Kentucky Children's Hospital, 80 specialized clinics and various outreach programs.

Our graduates are recognized for their clinical excellence and professionalism, characteristics developed through a demanding educational program that combines cuttingedge curriculum with caring and compassion. They have the respect of their peers and the gratitude of their patients, some of whom may be inspired to pursue careers in medicine themselves.

But our graduates are also leaders, combining clinical service with community service through professional and legislative activities. Their voices are heard and their contributions are felt throughout Kentucky – and often far beyond its borders as they join others elsewhere in discussing issues of national importance to public health and medical practice. Here we celebrate three who have set the bar high for their peers. We would expect no less.

# Ardis Hoven: AMA's voice gains a Kentucky accent

Ardis Hoven, MD '70, the new president of the American Medical Association (AMA), was fascinated while growing up in Lexington by the stories of returning missionaries who would visit her father, a minister. She told him she wanted to be a missionary doctor. He suggested that there were plenty of people closer to home who needed help, too, and that she could get an excellent medical education without leaving town.



Ardis Hoven, a 1970 graduate of the UK College of Medicine, has been elected the new president of the American Medical Association.

Hoven took her father's words to heart, attending the University of Kentucky for both an undergraduate degree in microbiology and medical school. She had an affinity for understanding bacteria, viruses and parasites, and her further studies quickly steered her through internal medicine into specialized training in infectious diseases. "You really have to be a total body doctor," she said, "and you like what you do if you're good at it."

The appearance of AIDS in the late 1970s, and the subsequent identification of HIV, changed the course of Hoven's career. For

25 years, she served on the staff of the Lexington Clinic, treating infectious disease patients, including those with HIV/AIDS. She joined the University of Kentucky faculty in 2000 and became medical director of the Bluegrass Care Clinic.

The initial mystery and fear surrounding HIV/AIDS demonstrated to Hoven that the privacy of patient care needed to be complemented by a strong public voice from the medical community.

"There were questions about how HIV/AIDS should be handled at the state level, and I became the go-to person around medical legislation," she said. Hoven turned out to be a natural in public settings. She became president of the Kentucky Medical Association, and also got involved with the AMA, first as a state delegate, then as a trustee. She was elected AMA's 168th president – only the third woman, and the first graduate of the College of Medicine, to hold the title – in June 2013.

"As president of the AMA, I am its spokesperson," said Hoven, "and, as you might expect, the Affordable Care Act will occupy much of my time and attention. We want to get rid of the bad parts and encourage the good parts – prevention and wellness – that are at its heart. That mission also includes teaching people how to use health care wisely. I have a personal passion for getting health insurance for the uninsured. It's going to be a big job, but I am looking forward to it."

## Preston Nunnelley: A career filled with special deliveries

Preston Nunnelley, MD '70, estimates that in 30 years he delivered 6,000 babies. "I was in private practice from 1974 to 2004, and have been in administrative medicine since then," he said.

Nunnelley, raised in Mount Vernon, Ky., entered the University of Kentucky as an engineering major. Back home, however, some friends were working in a local hospital. He would visit them, and what he



Preston Nunnelley has been in private practice, administration, community service and advocacy since graduating from medical school at UK.

saw made him rethink his career choice. He got married, moved back to Mount Vernon and entered Eastern Kentucky University as a biology and chemistry major.

He returned to UK for medical school. "Its reputation was very good, and they had a lot of outstanding professors," Nunnelley said. "I wanted to stay in Kentucky, so I felt it was the best place for me. I chose Ob-Gyn when I rotated through, and at graduation the department gave me the Louise Perkins McHenry Award for my performance as a resident. When I was looking at residency programs, I realized the department felt like home, so I stayed."

Throughout his career, Nunnelley has mixed medical practice with service through his activity in community and professional organizations. He is vice president of medical affairs and chief medical officer at Baptist Health Lexington, and in 2012, he received the Jack Trevey Community Service Award, the highest such honor given by the Lexington Medical Society. He has held numerous positions, including presidencies of the Kentucky OB-GYN Society, the Fayette County Medical Society and the Kentucky Medical Association, and he currently is president of the Kentucky Board of Medical Licensure.

In that last role, in 2011, Nunnelley became a central figure in the fight over a proposed piece of state legislation known as HB1. "Its intention was to cut down on pill mills and physicians abusing their prescriptive authority. Some thought that if the board was doing its job, we wouldn't need a bill, but it isn't that simple. Eliminating drug abuse requires a comprehensive approach. It does no good if people simply move from one drug to another. While there were several unintended consequences of HB1, overall it has had a huge impact on prescription drug abuse. My attitude toward medical legislation has always been to focus on the best quality of care for patients. That's how I always approached my patients, and its how I try to improve the health of the people of Kentucky."

## Raymond Wells: Coal miners' doctor

Raymond D. Wells, MD '65, was a young man in a hurry to become a physician. The son of a coal miner, Wells spent his early childhood living in a mining camp in Floyd County that was occasionally visited by the company doctor.

"We didn't have a TV," said Wells, "so I only knew the world I saw around me. I thought all doctors were family doctors." He was 6 when



The son of a coal miner, Raymond Wells followed an unlikely path to medical school, was in private practice 42 years and has played an important role in improving access to medical care for miners and others in rural areas of Kentucky.

he decided that he wanted to be one, too.

But patience was not one of his virtues. "I attended Union College and Pikeville College for three years," he said, "and I took mostly science courses. I didn't graduate until after my first year in medical school."

Medical school was the University of Kentucky's brand-new College of Medicine. Wells was in its second class, and in 1967, he became its first graduate to go into private practice. "The state of Kentucky had a program to lend money to medical students who agreed to practice in underserved areas," he said. "After my training, I went back to east Kentucky."

For the next 42 years, Wells treated residents of Martin County, next to the county where he had grown up. Many of his patients were miners like his father, and he saw that the nature of their work and the long hours underground made it difficult for them to have regular checkups with a physician. Working with telemedicine experts at the College of Medicine, he devised a program whereby miners at different sites could be seen by a nurse practitioner, and he could consult from another location. That pioneering work won Wells the Rural Practitioner of the Year designation by the National Rural Health Association in 2007. He joined Alliance Coal in 2009, where he is medical director and supervises treatment at mine clinics throughout Kentucky with the assistance of telemedicine.

Wells and Nunnelley both view technology as the greatest force for change in their careers. "Today," Wells said, "we are much more dependent on imaging and laboratory values to establish a diagnosis." Nonetheless, medical practice is still all about one person treating and helping another. And, he adds, "The greatest rewards have been mine."

# By the Numbers

# **Education**

## **Class of 2016 Mean Scores**

As of August 1, 2012

COLLEGE GRADE POINT AVERAGE Science 3.61 Non-science 3.75 Total GPA 3.67

## MCAT SECTIONS (1-15 SCALE) Verbal Reasoning 10.1 Physical Science 10.6 Writing Samples P (J-T scores) Biological Science 11.2 Mean 31.9

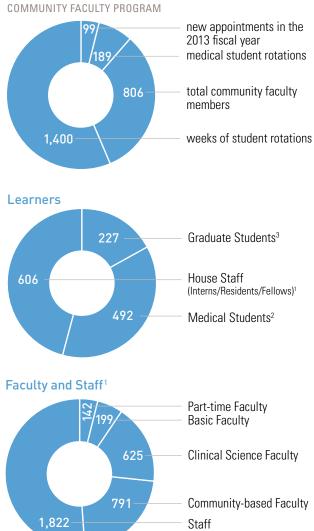
Approximately 87 percent of all UK medical students received federal student loan assistance, and 49 percent received scholarship awards.

In 2013, UK medical students matched into 22 different specialties for residency. 22 percent elected to stay within the UK HealthCare system, and an additional 9 percent elected to stay in Kentucky for residency.

The college has one of 10 triple-board residency programs in the nation where residents can train in Adult Psychiatry, Child and Adolescent Psychiatry, and Pediatrics.

The College of Medicine is accredited by the Liaison Committee on Medical Education of the Association of American Medical Colleges and the American Medical Association.

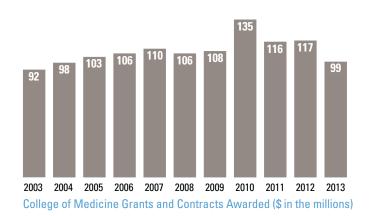
#### Outreach



<sup>1</sup> As of June 30, 2013.

<sup>2</sup> As of start of 2013-2014 academic year.

<sup>3</sup> As of 2013 fall semester. Includes students pursuing MS and PhD degrees.



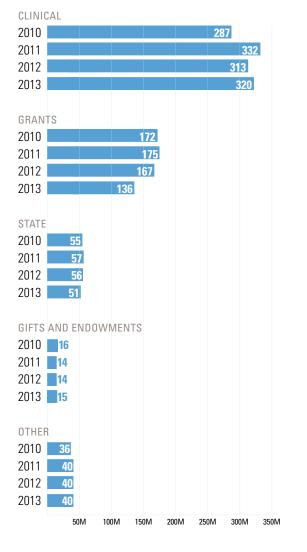
# Research

**Grants and contracts** in the College of Medicine reached **\$98.9 million** in fiscal year 2013 (July 1, 2012, to June 30, 2013), including in excess of **\$50 million** in National Institutes of Health (NIH) funding.

In federal fiscal year 2012 (October 1, 2011, to September 30, 2012), UK received 62 percent of the **NIH research funding** granted to Kentucky medical schools.

#### LEADING-EDGE SOLUTIONS

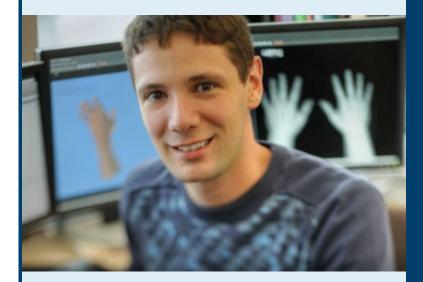
## Revenue & Sources (in millions)



The College of Medicine has 245,000 net square feet of research space.

# The College of Medicine accounts for 37 percent of UK's grants and contracts.

FY10	39.9%
FY11	38.7%
FY12	42.0%
FY13	37.0%



Radu Paul Mihail hopes his visualizations will help patients make treatment decisions.

# A game-based approach to help rheumatoid arthritis patients choose treatments

When **Radu Paul Mihail** walked into a UK office looking for a campus map in early 2010, he didn't know that he was also opening the door to a career-defining research opportunity. Mihail, a Romanian who emigrated to the U.S. in 2003 when he was 18, had graduated from Eastern Kentucky University with a degree in computer science. Impressed by UK's Center for Visualization & Virtual Environments, he was hoping to find a research opportunity. His quest for a map ultimately led him to the Halcomb Fellowship, a two-year program combining research in engineering and medicine.

"The opportunity to work on a blended medical and engineering project was very appealing," said Mihail. He enrolled as a PhD student and joined a research team exploring a video game approach to help patients recently diagnosed with rheumatoid arthritis choose a treatment. These decisions are difficult; they are called "preference sensitive" because no single best alternative can be identified.

Hands are the most commonly affected part of the body, and preliminary experiments tested the patients' fine motor skills. Later, visualization exercises based on X-rays will show patients how their hands would likely change over time.

The ability to visualize what is likely to occur in a few years without ingesting potentially toxic medication inspires greater involvement by patients. "This approach has already been used with diabetes and cancer patients, and there is considerable evidence that educational computer-based games are superior to the standard pamphlet patients receive at their physician's office," said Mihail. "After all, people enjoy playing games."

# **UKHealthCare**。

138 Leader Avenue Lexington, Kentucky 40506-9983 859-323-6582

mc.uky.edu/medicine





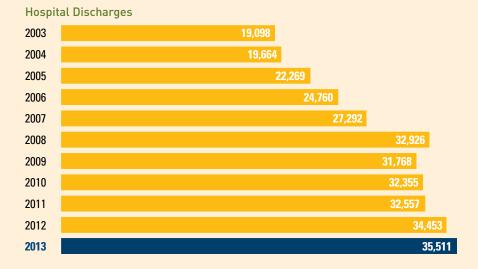
## Statistics and Trends

### Hospital Operating Statistics for Year Ending June 30

Discharges	2013	2012	2011
Medicare	11,322	10,857	10,065
Medicaid	9,911	9,670	9,277
Commercial/Blue Cross	10,278	9,718	9,453
Patient/Charity	4,000	4,208	3,762
Total Discharges	35,511	34,453	32,557
Licensed Beds	825	825	791
Available Beds	718	701	650
Average Daily Census	577	560	530
Average Length of Stay	5.93	5.95	5.94
Case Mix Index	1.84	1.78	1.75
Surgery			
Operative Cases	28,638	27,966	26,245
Hospital-based Outpatient			
Hospital Clinic Visits	368,223	359,011	339,839
Emergency Visits	88,752	89,662	77,205
Total Hospital Outpatient Visits	456,975	448,673	417,044

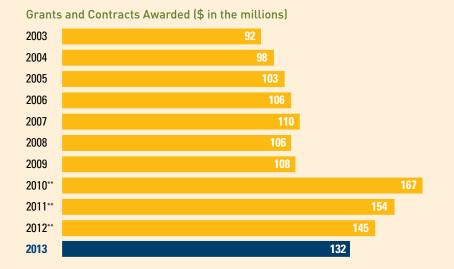
### Other Operating Indicators for Year Ending June 30

Ambulatory Services	2013	2012	2011
Ambulatory Physician Visits	647,206	625,599	594,361**
Professional Net Revenue*	\$ 226,014	\$ 223,688	\$ 207,026
*Accrual based and does not include bad debt; \$ in thous **All years adjusted to reflect scheduled attended visits.	ands.		
Other Service Relationships			
Referring Physicians	4,909	4,672	4,697
UK•MDs Physician Calls	171,521	171,011	163,181
Health Connection Consumer Calls	174,203	167,283	156,604
Website Users (Avg./Mo.)	51,948 <sup>†</sup>	55,526**	94,797
<sup>†</sup> New method of data collection – Google Analytics. <sup>††</sup> Site under transition most of year.			



Hospital Operating Revenue (\$ in the thousands)\*





\*\*2006–2009 College of Medicine only; 2010-2013 includes colleges of Dentistry, Health Sciences, Medicine, Nursing, Pharmacy and Public Health. Office of the Executive Vice President for Health Affairs\*

Michael Karpf, MD Executive VP for Health Affairs

**Murray Clark** VP for Health Affairs Chief Financial Officer

**Frederick de Beer, MD** VP for Clinical Affairs Dean, College of Medicine

**Mark Birdwhistell** VP for Administration and External Affairs

Brett Short Chief Compliance Officer

#### Senior Administrative Team\*

Mark D. Birdwhistell Bernard Boulanger, MD Murray Clark Joseph D. Claypool Fred de Beer, MD Michael Karpf, MD Marcus Randall, MD Ann Smith Colleen H. Swartz, DNP, MBA, RN Tim Tarnowski Kim Wilson

+As of June 30, 2013

# **Financial Statements**

For year ending June 30

### Hospital Condensed Statements of Operating Revenues, Expenses and Changes in Net Assets

(\$ in the thousands)

	2013	2012	2011
Net Patient Service Revenue	\$ 926,811	\$ 888,714	\$ 776,388
Sales and Services	24,639	24,112	21,065
Total Operating Revenues	\$ 951,450	\$ 912,826	\$ 797,453
Operating Expenses Operating Income	886,208 <b>\$ 65,242</b>	870,438 <b>\$ 42,388</b>	765,081 <b>\$ 32,372</b>
Nonoperating Revenue (Expenses)	14,220	(11,768)	31,313
Income Before Transfers to UK	79,462	30,620	63,685
Transfers to UK/Other	(15,698)	(17,490)	(22,378)
Net Income (Loss) From			
Discontinued Operations	_	(16)	(17)
Total Increase In Net Assets	\$ 63,764	\$ 13,114	\$ 41,290
Operating Margin	6.89%	4.64%	4.06%
Total Margin	<b>6.71%</b>	1.44%	5.18%

Statement of net assets and related statements of revenues, expenses and changes in net assets for the year ending June 30, 2013, were audited by BKD, LLP, of Louisville, Kentucky.

### Hospital Net Patient Revenue by Funding Source\*

(\$ in the thousands)

Payor	2013	2012	2011
Medicare	\$260,470	\$ 259,310	\$ 215,078
Medicaid	247,313	240,351	204,991
Commercial/Blue Cross	468,165	418,509	362,792
Patient/Charity	96,071	105,080	80,829
Total	\$1,072,019	\$1,023,250	\$ 863,690
Bad Debt	(145,208)	(134,536)	(87,302)
Total Net Patient Revenue*	\$ 926,811	\$ 888,714	\$ 776,388

#### Hospital Condensed Statements of Net Assets

(\$ in the thousands)

Assets	2013	2012	2011
Current Assets	\$ 197,525	\$ 184,845	\$ 152,641
Capital Asset, Net of Depreciation	793,329	812,369	772,163
Other Noncurrent Assets	271,134	248,492	254,388
Total Assets	\$1,261,988	\$1,245,706	\$ 1,179,192
Liabilities			
Current Liabilities	\$ 131,052	\$ 173,094	\$ 119,686
Noncurrent Liabilities	428,948	434,388	434,396
Total Liabilities	\$ 560,000	\$ 607,482	\$ 554,082
Net Assets			
Invested in Capital Assets,			
Net of Related Debt	\$ 363,729	\$ 377,552	\$ 324,438
Nonexpendable Other	117	118	118
Restricted Expendable	14,965	14,529	13,086
Unrestricted	323,177	246,025	287,468
Total Net Assets	\$ 701,988	\$ 638,224	\$ 625,110

Note: Certain reclassifications to fiscal year 2012 comparative amounts have been made to conform to the fiscal year 2013 financial statement classifications. These reclassifications had no effect on the change in net position.

### Oversight As of June 30, 2013

#### COLLEGE OF DENTISTRY

Administration Sharon P. Turner, DDS, JD Dean

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Vicki Riddell-Peavler Associate Dean for Administration and Finance

**Cynthia Beeman, DDS, PhD** Associate Dean for Academic Affairs

Vacant Associate Dean for Clinical Affairs

**Christine Harper, MS** Assistant Dean for Admissions and Student Affairs

Joseph Parkinson, DDS Assistant Dean for Pre-doctoral Clinic Operations

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Mel Kantor, DDS, MPH, PhD (Interim) Oral Health Practice

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**Charlotte Peterson, PhD** Associate Dean for Research

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Janice Kuperstein, PhD Rehabilitation Sciences

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Charles H. Griffith III, MD Senior Associate Dean for Medical Education

**David Moliterno, MD** Senior Associate Dean for Clinical Affairs

**Roxanne Allison, CPA** Associate Dean for Finance and Administration

Carol Elam, EdD Associate Dean for Admissions and Institutional Advancement

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James Norton, PhD Associate Dean for Educational Engagement, Director of UK HealthCare CECentral

Kevin Pearce, MD Associate Dean for Rural and Community Health

Xianglin Shi, PhD Associate Dean for Nonclinical Faculty Development

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Edwin A. Bowe, MD Anesthesiology Shuxia Wang, PhD (Interim) Graduate Center for Nutritional Sciences

Beth Garvy, PhD Microbiology, Immunology and Molecular Genetics

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Wendy F. Hansen, MD Ob-Gyn

Lon R. Hays, MD, MBA Psychiatry

Roger L. Humphries, MD Emergency Medicine

**Darren L. Johnson, MD** Orthopaedic Surgery and Sports Medicine

Raleigh Jones, MD Otolaryngology

**Gerald V. Klim, DO** *Physical Medicine and Rehabilitation* 

Lisa Cassis, PhD Molecular and Biomedical Pharmacology

Carl G. Leukefeld, DSW Behavioral Science

David Moliterno, MD Internal Medicine

Kevin Pearce, MD, MPH Family and Community Medicine

M. Elizabeth Oates, MD Radiology

**P. Andrew Pearson, MD** Ophthalmology and Visual Science

Marcus Randall, MD Radiation Medicine

Francisco H. Andrade, PhD Physiology

Phillip Tibbs, MD Neurosurgery

Mary Vore, PhD Graduate Center for Toxicology

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Joseph Zwischenberger, MD Surgery

Directors Kristine Lohr, MD (Interim) Center for the Advancement of Women's Health

Alan Daugherty, PhD, DSc Saha Cardiovascular Research Center

Karyn Esser, PhD Center for Muscle Biology

**B. Mark Evers, MD** Markey Cancer Center

James Geddes, PhD Spinal Cord and Brain Injury Research Center

**Greg Gerhardt, PhD** Morris K. Udall Parkinson's Disease Research Center

Philip A. Kern, MD Barnstable Brown Kentucky Diabetes and Obesity Center

Susan Smyth, MD Linda and Jack Gill Heart Institute

Linda Jo Van Eldik, PhD Sanders-Brown Center on Aging

Sharon Walsh, PhD Center on Drug and Alcohol Research

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**Richard Crouch, MD** Center for Rural Health, Murray

**Rachael Fitzgerald, MHA** *Center for Rural Health, Danville* 

Frances J. Feltner, MSN, RN Center for Rural Health, Hazard

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Sharon Lock, PhD, APRN (Interim) Associate Dean for MSN and DNP Studies

**Terry A. Lennie, PhD, RN, FAAN** *Associate Dean for PhD Studies* 

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Linda Dwoskin, PhD Associate Dean for Research

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Joseph Chappell, PhD Pharmaceutical Sciences

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**Cynthia Lamberth, MPH** Associate Dean for Workforce Development

Lawrence Prybil, PhD Associate Dean

Michelle Lineberry, MA Assistant Dean for Academic and Faculty Affairs

Margaret McGladrey, MA Assistant Dean for Research

**Kimberly Judd** Director of Business Operations

**Michael Smith, PhD** Assistant Dean for Evaluation and Planning

John Collins, MBA Director of Strategic Financial Planning

Mark K. Blevins Director of Information Technology

Chairs Tyrone Borders, PhD Health Services Management

Richard A. Crosby, PhD Health Behavior

**Richard J. Kryscio, PhD** *Biostatistics* 

**David Mannino, PhD** *Preventive Medicine and Environmental Health* 

Wayne T. Sanderson, PhD Epidemiology

Graham Rowles, PhD Gerontology

#### Focus on Philanthropy

# Patient families, loved ones experience abundant "comfort" thanks to gracious gift





The services of the Don and Mira Ball Surgery Waiting area are used by an average of 140-170 waiting family and friends daily.

A gift made by Don and Mira Ball of Lexington in 2012 named the surgery waiting area in Pavilion A of UK Albert B. Chandler Hospital.

n 2004 when Mira Ball began her tenure on the University of Kentucky's Board of Trustees, the new Executive Vice President for Health Affairs, Dr. Michael Karpf, had been on campus less than a year.

"Dr. Karpf was full of bold ideas," Ball said. "He had a vision to expand UK's patient care programs, build new facilities and recruit faculty from some of the top medical centers in the country. It didn't take long for him to get us on board with his vision."

"Mira was such an important partner in everything we have been able to accomplish," said Karpf. "Her roles on the University Health Care Committee and then as chair of the UK Board of Trustees came at a critical time in our medical center planning process."

### "Mira was such an important partner in everything we have been able to accomplish."

— Michael Karpf, MD, Executive VP for Health Affairs

"The gift she and Don made last year to name the Don and Mira Ball Surgery Waiting area was very special to me personally because of all we have been through together," he added.

The Don and Mira Ball Surgery Waiting area provides patients' families and loved ones with a comfortable and welcoming environment during stressful times. Large windows provide natural light and the expansive area houses a very special art collection

featuring important Kentucky artists. Hospital staff and volunteers are available to answer questions and ease concerns. Electronic displays scattered throughout the space update family members as patients progress through their procedures. Pagers also provide constant updates and enable family members to leave the room for a break from the wait. Physicians and surgical staff meet family members in private consultation rooms to discuss surgery outcomes.

"Don and I made this gift for Dr. Mike Karpf in recognition of his extraordinary contributions to health care in Kentucky and in appreciation for his kindness to our family." Ball said.

### Looking back at a few remarkable gifts and moments of the year



**A gift to remember.** In October 2012, UK HealthCare and Kentucky Organ Donor Affiliates (KODA) unveiled a new memorial wall designed to honor organ and tissue donors whose gifts gave new life to patients of UK Albert B. Chandler Hospital. At a special ceremony, more than 500 donor family members paid tribute to the 240 loved ones whose names were revealed on the new wall. "Our family continues to be very proud of Hannah's decision to be an organ donor, and we are so grateful that UK and KODA have chosen to publicly honor her and the many other organ and tissue donors in such a beautiful way," said Michelle Landers, whose 17-year-old daughter Hannah was an organ donor.

A memorial wall to organ donors was installed in 2012.

**Forever in our memory.** Joy Wills, a lifelong educator from Jackson County, attended DanceBlue 2012 and watched students perform an original line dance as each hour passed. The three-time cancer survivor was energized by what she saw and forever changed by her experience. Wills passed away later that year but at Feb. 23's DanceBlue 2013 her presence was felt by all when a surprise announcement was made that she had given more than \$500,000 to DanceBlue through her estate. This amount was in addition to the \$1,113,189.42 raised by UK students to benefit the Golden Matrix Fund and the DanceBlue Kentucky Children's Hospital Hematology/Oncology Clinic. Barbara Waldman-Ward, a pediatric hematology-oncology nurse played a crucial role in influencing Wills' gift. Since its inception, DanceBlue has raised more than \$5.1 million for pediatric cancer care at Kentucky Children's Hospital.

FOR THEKP

The impact DanceBlue has made in raising money to fight pediatric cancer inspired Joy Wills to provide for the cause in her estate.



The ability of Kentucky Children's Hospital to serve Kentucky children has been greatly enhanced by support from corporate partners such as Speedway and WHAS Crusade for Children, whose gift enabled UK to purchase this specially equipped ambulance for children.

#### Corporate partners, community supporters. Through

the Children's Miracle Network Hospitals corporate partner program, Kentucky Children's Hospital (KCH) received more than \$800,000 in 2013 to support pediatric programs. Over the past five years, KCH has received almost \$3.1 million dollars from corporate supporters. Last year, they provided funds to renovate KCH's 4 North progressive care unit, livening up the space with bright colors and oversized murals that serve as positive distractions for children and their families. Speedway and WHAS Crusade for Kids purchased a new pediatric ambulance to safely and comfortably transport patients within Eastern and Central Kentucky.

One of the most unique initiatives of this group is a small grants program that gives faculty and staff the opportunity to apply for equipment, educational and patient support needs and other priorities that enhance patient care and research. An annual golf outing, "Tee It Up for Kids," brings corporate partners together at Marriott Griffin Gate, and this year alone generated \$40,000 to purchase MRI goggles to keep children calmly entertained during imaging procedures.

Kentucky Children's Hospital's top corporate partners have included Speedway, Walmart, RE/MAX, McLane Company, Dairy Queen, Rite Aid, Love's Travel Stops, Marriott Griffin Gate Resort and 98.1 The Bull.

# UK Arts in HealthCare wins Governor's Award



2012 Govenor's Award in the Arts

UK HealthCare was honored to receive one of the 2012 Governor's Awards in the Arts – the Commonwealth's most prestigious arts awards – in recognition of UK HealthCare's acclaimed Arts in HealthCare Program.

Gov. Steve Beshear presented UK HealthCare with the Governor's Awards in the Arts Business Award during an October 2012 ceremony at the Capital Rotunda. This award is given to a business or businessperson for outstanding interest in, and support of, the arts.

Funded entirely by private donations, Arts in HealthCare brings art in all of its forms – sculpture, painting, folk art, photography, music and dance – to our patients, families, caregivers and staff. The core art collection is created by Kentucky artists, many of whom are nationally and internationally renowned, and several works depict familiar, comforting Kentucky scenes.

A growing body of research points to art's powerful effect on healing: it can decrease anxiety, pain perception and the need for pain medication. Arts in HealthCare transforms UK HealthCare's hospitals and clinics into beautiful, soothing sanctuaries that heal both body and soul.

In 2012 a mural painted by Louisville artist Clare Hirn was added to a parquetry wood scene, created by Dan Diekhoff, to create a dramatic elevator lobby for Kentucky Children's Hospital.

# **U**KHealthCare。

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ukhealthcare.uky.edu