

### From the Dean

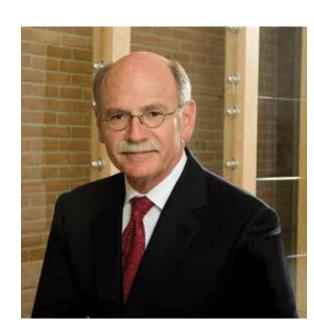
It's been 35 years since the first class entered the Wright State University Boonshoft School of Medicine. Much has changed since then, including the name of our medical school, but as you'll read in our cover story, much remains the same. We asked several members of our charter class about the changes they've seen in medicine since they entered medical school in 1976. We think you'll find their answers insightful.

One of the things that has not changed is our school's commitment to diversity. The Boonshoft School of Medicine has been a pioneer in bringing non-traditional students into the fold since admitting its first class. From its inception, our medical school sought out diversity in all its forms. In this issue, you can read about two of these non-traditional students: faculty member Dr. Jan Duke, who started medical school at the age of 48 after raising a family; and Dr. Jake Deister, a member of our 2011 graduating class, who as an M.B.A., left a promising career to take undergrad premed courses and pursue his dream of medical school.

Since our first class graduated in 1980, we've seen 2,719 graduates walk through our doors. And I never cease to be amazed by their accomplishments. In addition to hearing from several members of our first class, you can read about Dr. Evangeline Andarsio, who has been a statewide leader in professional-liability issues and spirituality in medicine; and Dr. Sophia Apple, who serves as the director of breast pathology at UCLA Medical Center—evidence that another thing that has remained the same in the past 35 years is the quality of our graduates.

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Howard M. Part, M.D. Dean



### **Vital Signs**

What's Inside

Vol. 35, No. 1 Summer 2011

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### **SQUEEZE PLAY**This study has

confirmed my sense of how bad it is out there for families.



#### A FAMILY AFFAIR

I remember having a thought before medical school. How hard can it be?



#### SKATING THROUGH LIFE

They make me laugh, just like my friends at school make me laugh.



#### THE HEALER'S LIFE ART

e We've seen
the deaths of
patients.
h. Where do you
go with that?

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### Snapshots

### **Dunn elected to American College of Surgeons Board of Regents**



Margaret M. Dunn, M.D., M.B.A., FACS, has been elected to a three-year term as a member of the Board of Regents of the American College of Surgeons (ACS). A general surgeon, Dunn serves as professor of surgery, executive associate dean in the medical school, and president and chief executive officer of Wright State Physicians. She was elected to the board during the college's annual Clinical Congress in Washington, D.C.

As a member of the Board of Regents, Dunn will have a role in formulating policy and directing the affairs of the college, which currently has more than 77,000 members. The regents have the ultimate responsibility for managing the affairs of the college.

Dunn received an M.D. degree in 1977 from Jefferson Medical College of Thomas Jefferson University, in Philadelphia. She went on to complete an internship and a surgery residency at Einstein Montefiore, in Bronx, N.Y. Dunn attained certification in 1983 from the American Board of Surgery, and has been a Fellow of the American College of Surgeons since 1986.

The American College of Surgeons is a scientific and educational organization of surgeons that was founded in 1913 to raise the standards of surgical practice and to improve the care of the surgical patient. VS

#### James Olson, Ph.D., receives Science Educator Award



Exploring the World of Science

### The Society for Neuroscience presented its Science Educator Award to James E. Olson, Ph.D.

Boonshoft professor of emergency medicine, neuroscience, cell biology, and physiology. The award recognized Olson as an outstanding neuroscientist who has made significant contributions in promoting public education and awareness about the field of neuroscience.

Olson's work, promoting the inclusion of neuroscience topics in state and national Science Olympiad competitions, has introduced grade-specific neuroscience education to more than 5,000 middle school and high schools across the United States. As a member of Science Olympiad's Biological and Life Sciences Committee, he has helped define health science and anatomy events, ensuring that neuroscience topics are included in

the Science Olympiad curriculum. In addition, Olson created a program called "Neuroscience (This is your brain)" that was used in regional competitions across Ohio and was adopted as a national trial event.

Science Olympiad is a non-profit organization dedicated to improving K-12 science education. Wright State University recently announced that it was chosen to host Science Olympiad's large-scale national tournament in 2013. VS

### Wright State Physicians breaks ground for medical office building on WSU campus

The Dayton region's largest academic multi-specialty group, Wright State Physicians (WSP), held a groundbreaking ceremony on June 21 for a new medical office building on the campus of Wright State University.

The new building will offer a full array of physician care under one roof, including new neurology and sports medicine practices, as well as the existing practices in orthopaedics, family medicine, geriatrics, and dermatology.

A new sports medicine practice will help area athletes enhance performance while preventing and treating injury, and a new neurology practice will provide muchneeded neurological care for area residents.

The new facility will also help further WSP's mission to retain outstanding medical faculty and staff in support of the clinical, research, and community service activities of the medical school. The Boonshoft School of Medicine and the nonprofit Wright State Physicians are partners in providing training to medical students and delivering health care to the region.

"The facility will also provide a conveniently located clinical site for the education of our medical students," said Howard Part, M.D., dean of the WSU Boonshoft School of Medicine, "along with a clinical setting for our faculty to conduct translational research, which can move basic research from the lab to the bedside."



(L to R) David R. Hopkins, president, Wright State University; Margaret Dunn, M.D.; Howard Part, M.D., dean, Boonshoft School of Medicine; Marilyn Reid, Greene County commissioner; Dr. Corey Ellis, M.D., assistant professor, orthopaedic surgery; and Cynthia Olsen, M.D., family medicine acting chair, unveil an artist rendering of the new Wright State Physicians building

Along with the recently renovated Gandhi Medical Education Center in White Hall, this new building will provide students with an outstanding opportunity to learn alongside faculty physicians in a conveniently located clinical setting on campus.

Students will have additional opportunities to participate in clinical research with physicians in sports medicine, orthopaedics, family medicine, geriatrics, neurology, and dermatology without having to leave campus.

This facility will also serve as the outpatient practice site for the new neurology department, which will be a vital clinical component of the Wright State University & Premier Health Partners Neuroscience Institute.

The Neuroscience Institute's clinical neurologists will enhance access to neurological care in an area of critical need for the citizens of the Dayton region.

In addition, this new facility will help nurture close collaboration between Wright State's neuroscientists and clinicians to accelerate translational research and rapidly transform new discoveries in basic sciences into breakthroughs in patient care.

Construction of the new 66,000-square-foot, three-story building, located on the northeast side of campus, has begun, with occupancy scheduled for fall 2012. The new \$15-million building will anchor the northeast end of campus.

"Consolidating six medical practices under one roof will give patients an improved one-stop medical care experience while reducing overhead costs," said Margaret Dunn, M.D., M.B.A., FACS, professor of surgery, executive associate dean at the Boonshoft School of Medicine, and president and CEO of Wright State Physicians. "The new facility will also benefit WSU faculty, staff, and students, giving them access to expert multi-specialty care conveniently located on campus." VS

### Snapshots

### 2010 Dayton Area Drug Survey: Decline in substance abuse among local teens ends

Results from the 2010 Dayton Area Drug Survey (DADS) conducted by the Center for Interventions, Treatment, and Addictions Research (CITAR) suggest the long-running trend of declining drug use by teens may be ending.

The percentage of 12th grade students who reported ever having been drunk on alcohol rose from 54.3 percent in 2008 to 55.2 percent in 2010, with similar increases for seventh and ninth graders. For the first time in many years, the percentage of teens reporting experience with cigarettes and smokeless tobacco also increased, as did the percentage reporting marijuana use.

While the increases were generally small, they may be a harbinger of an upward swing in youth drug use. The findings follow the 2008 DADS results, which suggested the earlier declines in drug use among high school seniors might have stalled. The Dayton area appears to be following a national trend. Several recent national surveys also suggest the decline has leveled out and may be reversing, at least for some drugs.

Conducted every two years, DADS is a cross-sectional study that provides estimates of teen drug use in the Dayton region. First administered in 1990, DADS is collaboration between the

CITAR and area school districts. In spring 2010, 16,307 students from 15 Dayton-area school districts volunteered to participate in the anonymous survey. The majority of the sample was white (about 82 percent), suburban, and nearly evenly split between boys and girls.

"The good news in the 2010 DADS findings is that the percentage of young people who use drugs other than alcohol, tobacco, and marijuana heavily is very small, much less than 1 percent of the sample in any given grade, said Russel Falck, associate director of CITAR and associate professor of community health.

"Overall, DADS results suggest the need for ongoing, intensive drug abuse prevention programs in the schools that extend beyond the ninth grade, when such efforts currently often end. Our data suggest that the percentage of teenagers who will get drunk for the first time will double between the ninth and 12th grades. Marijuana use will also come close to doubling. Implementing and sustaining evidence-based, public health-oriented school and community prevention programs can help decrease drug-related problems among teens," he said. VS

# Issues In Depth Backtothe future... med.wright.edu

The science of medicine may have changed, but the art of healing remains the same. Our charter class reflects on how the practice of medicine has changed since they entered medical school 35 years ago.

In the

mid-1970s.

medicine

seemed

destined

for great

advance-

ments.

to be



Donald Neumann, M.D., Ph.D.

At least that's the way Donald Neumann, M.D., Ph.D., saw it. Neumann, a graduate of Case Western Reserve University, was eager to put his love for biology and interest in radiology to work in medical school. In 1976, he was chosen among several thousand applicants to be one of the 32 students who would make up Wright State University Boonshoft School of Medicine's first class.

It was an opportunity to join a unique adventure, as Neumann and his colleagues saw it. The students quickly found themselves in a special partnership with the school's faculty as they worked together to create the curriculum and mold a foundation for the school's future.

The small class experienced a one-of-akind learning environment. They gained much of their basic instruction in one classroom and did their research in a small medical library. They participated in unconventional opportunities—like seeing patients in the first year and doing clinical rotations each summer—which many believe gave them a five-year degree for the price of four.

It was an exciting time. Technological inventions and the creation of new medications were growing, which offered a new way of practicing what had been taught inside the classroom. Just before Neumann entered medical school, the world was introduced to the CT scan. And by the time Neumann hit residency, he had a front row seat to how it worked

"I remember distinctly doing a pediatric rotation at the Children's Hospital in Dayton and I took a call about a little girl who needed a CT scan done," said Neumann, who is now a staff member of the Cleveland Clinic Department of Molecular and Functional Imaging. "At the time there was only one CT scan in Dayton, and I got appointed to ride along with her in the ambulance to have it done.'

The CT scan unit provided a single-slice image and required the patient to lie down for an hour before it was finished Neumann can still recall the radiologist trying to interpret the tiny little images while referring to a textbook. More than three decades later, multiple CT scanners are located in nearly every hospital sometimes even in physician's offices and can scan a patient in just seconds while providing multiple image slices.

Such a transformation has reshaped the practice of medicine. Advances in technology and breakthroughs in medicines have made a physician's job that much more exciting. But other forces, many of which could not have been predicted, have created new

burdens that take doctors away from what they love and know best.

An increase in private insurance and government intervention has forced doctors to consolidate and devote more of their time to paperwork. Meanwhile, an imbalance of reimbursement rates has placed varying values on doctor's jobs and made an incredible impact on what forms of medicine students now decide

In more ways than one, the medical atmosphere Neumann and his fellow graduates decided to enter 35 years ago has drastically evolved.

#### **Technology that transforms**

When the class of 1980 entered residency, physicians dictated patient notes on a little cassette, viewed X-rays on a single sheet of film, and clipped pagers to their belt. Any research that needed to be done on a particular case or condition was reserved for time in a medical library among shelves of journals and books.

Yet over the past three decades—and the past 10 years in particular—physicians have watched their jobs change right before their eyes with the birth of new technology, including new medical testing tools, advanced communication devices, and the research databases that are available by simply logging on to a web site. Physicians now experience greater mobility and increased efficiency in their jobs.





wireless connection.

department in the hospital where he worked. There, he would meet with a radiologist to discuss the results from a single sheet of film neatly nestled on a light box. Today, he can accomplish the same job from just about any location as long as he has a computer and a

Less than 15

wrap up his

a daily walk

to the X-ray

years ago,

"It makes decision making easier because you have the data far more quickly than before," said Cantini, who now serves as medical director of Rehabilitation

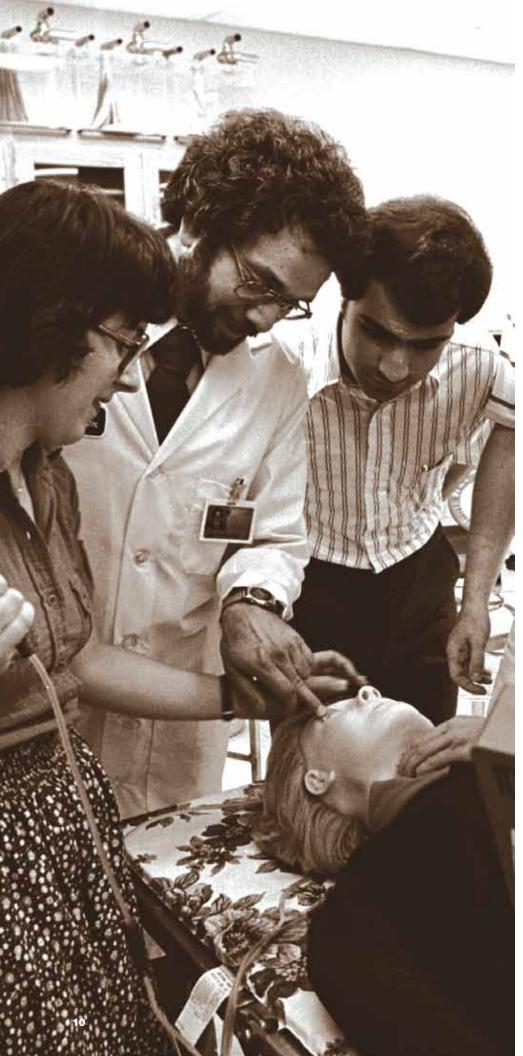
Medicine for Northwest Hospital in Lake Forest Park, Washington. "If I do Evan Cantini, need to speak with a radiologist, I can M.D., would simply call them up. We don't have to be in the same room." day by taking

Better technological advancements such as laparoscopic surgery—have meant fewer patients undergoing major surgery in place of a short day in the outpatient department. Robotic surgery is making procedures safer and more accurate, giving patients better outcomes and shorter recovery times.

Still, some believe technological advancements have come at a price. Some say physician collaboration and communication is not what it was 30 years ago when doctors were forced to consult with one another face-to-face, Neumann said.

Neumann appreciated when other physicians would visit his department during his early days as a radiologist. He could often set his watch to the moment they would all come walking in, ready to discuss cases and seeking his input.

"We would go through a patient's cases one at a time. It was great interaction that was beneficial to patient care and management," he said. "But personal interactions have fallen by the wayside now. I think radiology is viewed like pushing a button: You order a CT scan, and you get a quick answer."



#### **Advances in medicine** and cures

It's not just the technology that has exploded to new levels, but also the availability of medications to treat the diagnoses.

Wright State's charter class has seen many new advances in medicine since they entered the field. Included in the long list were the first cholesterol-lowering drug, a safer antidepressant, the only cancer vaccine, an aid for children suffering from ADHD, and the first targeted cancer drug that could be used in place of traditional chemotherapy.



Samia Borchers, M.D.

so many medications we have today that we didn't have 25 years ago that are both better and safer for

"There are

patients," said Samia Borchers, M.D., who practices dermatology in Dayton, Ohio.

Perhaps one of the biggest breakthroughs in Borchers' specialty was the creation of Accutane, a drug created in 1979 to treat severe cases of acne. The drug, which has gained popularity in the last 25 years, has literally transformed patients' lives after just five months of treatment, Borchers said.

The use of medical manikins has remained a constant since 1976



Robert Brandt Jr., M.D. But few can argue that one of the biggest advancement came in the treatment of HIV/AIDS. The disease was first reported in 1981 by the U.S. Centers for Disease Control and just nine years later WSU graduate Robert Brandt Jr., M.D., would become a certified AIDS specialist, running a primary care practice devoted to the care

Each

specialty has

benefited in

unique way

its own

with the

creation

of new

medications.

"One of the things I was fortunate to be involved with is the treatment of this disease," Brandt said. "This is one practice that has changed so dramatically, where at first we had no treatment whatsoever and people died within six months of being diagnosed. Now, it is like treating diabetes or hypertension."

of patients living with the disease.

"...at first we had no treatment whatsoever and people died within six months of being diagnosed. Now, it is like treating diabetes or hypertension."

#### A growing force

Unfortunately, many physicians feel as if there's a new force denying them the full benefit of the incredible advances in technology and medical treatments.

When he first started practicing medicine, Cantini didn't have to consult with his patient's insurance company before treating his patient. Now, it seems as if he needs pre-authorization to do just about anything. Slowly insurance companies and the government seem to be taking a bigger seat at the table when it comes to how patients are being treated. It has some doctors feeling restricted in how they care for their patients and weary from the added work it requires to make sure all of their decisions are sanctioned by someone else.

"They intervene in the process and place certain restrictions on hospital stays in such a way that now decisions aren't

being determined by the doctor, but the insurance company," Cantini said.

Meanwhile, government health programs such as Medicare have placed extremely strict guidelines of what they will allow for reimbursements, placing a squeeze on what clinical applications doctors can perform. For instance, Neumann said, a patient might need multiple doses of a hormone injection to treat a thyroid disease. Yet because of its cost, an insurance company may require the patient wait six months between treatments, placing the patient under stress and discomfort, he said.

"There are forces that are counterbalancing what otherwise would be seen as a significant expansion of clinical applications," Neumann said.





Carol LaCroix, M.D.

doctor in Omaha, Nebraska, thinks the insurance companies

Carol

LaCroix,

M.D., who

is a family

can often serve as checks and balances. The rise in health care costs is happening for a reason, and LaCroix believes that some of it has to do with the rate at which many tests are ordered without a second thought.

specialists who conduct a 10-minute procedure on a patient they may never see again, she said.

"I would like to see pay among physicians more evenly distributed," LaCroix said.

The number of medical students choosing primary care has steadily dropped over the past few decades as the potential pay has remained lower than in other specialties. Med students are gun-shy of a career in primary care where salaries nearly equal the school debt they'll be carrying upon graduation.

Rate of reimbursement is only one aspect haunting primary care docs. The other is the rising cost of malpractice insurance. Brandt opened a solo family practice upon graduation and handled everything, including the delivery of babies. But he closed his doors in 1990 when he could no longer afford the cost of malpractice insurance.

Malpractice premiums continue to increase in cost. Obstetricans, in particular, can pay insurance premiums anywhere from \$20,000 to \$200,000 depending on their location. In 2009, global professional services firm Towers Watson, reported that the costs of litigation avoidance had grown at more than 10 percent annually since 1975, one year before the charter class first entered med school.

### "The interactions I have with patients are the same today as they were 25 years ago."

"Sure it is true that insurance companies will say that you can't do (a certain test), but a lot of times they are good restrictions," she said. "The American public has to change its attitude that it can get everything for nothing. We can't keep our costs down and offer everything."

#### **Survival of the specialist**

Patient care isn't the only thing being determined by insurance companies. So is the value of a doctor's work. Insurance companies have placed invisible price tags on a doctor's time by the rate at which they choose to reimburse their services.

Primary care physicians, in particular, are feeling the heat. As a family doctor, LaCroix gets paid less for spending 20 minutes with a patient discussing preventative health care than some

The only way the trend will reverse is if certain issues are addressed, such as increasing programs to help medical students pay back loans and improving primary care payment, according to the American Academy of Family Physicians.

Primary care docs like Brandt, who entered the field three decades ago, have watched as their time for each patient has slowly dwindled. The two main causes have been the increased pressure from insurance companies to maintain a high volume of patient visits and an evergrowing load of paperwork that needs to be done for reimbursement.

"When I graduated, I thought my days would have been spent practicing more medicine and doing less paperwork," Brandt said. "If I put in an eight-hour day, probably five to six hours of that is actually seeing patients. The rest of the time I'm typing and trying to do the paperwork necessary to get things accomplished."

#### A new medical model

Health care, like any other business, has had to change and adapt to survive the times. Unfortunately, some things have been lost through that process. The intimate patient-physician relationship that most doctors enjoyed when they entered the field in the early 1980s decreased as solo practices were forced to join larger conglomerates in order to stay alive and compete.



Rob Mascia, M.D.

Connecticut right after graduating with Wright State's first class. The practice thrived and grew over the years to include six physicians, but in 1996 they decided to merge with a large multispecialty practice to remain efficient.

Rob Mascia,

M.D., had

the privilege

of becoming

a partner

with three

physicians in

a small family

practice in

other

The early 1990s was a time of transition for many practices in the United States. It was the start of a season where venture capitalists acquired practices with the goal of running them as for-profit models. But not even 10 years later, it became evident that the best people to run a practice weren't investors, but those who had actually been trained in the medical field.

It provided a new opportunity for Mascia, who decided to pursue an advanced degree and in 2000 received his master's degree in medical management from Carnegie Mellon. It's a route that Mascia didn't have in mind when he first graduated, but one that opened up as the market evolved. Now he is executive director and chief of primary care at Danbury Office of Physicians Services, a 300 physician specialty group practice.

Danbury Office is one of many medical home models gaining ground across the United States. Mascia said the model which provides a patient-centric model where the primary care doctor leads a team of specialists—will help put primary care physicians back to their rightful position. The model is a collaborative approach to health care, which is frequently delivered in a fragmented manner.

Collaboration is vital for doctors in today's environment, Cantini said, whether they are part of an official model or not.

"Successful patient care has to be team oriented," he said. "If you fume over the fact that some aspects of patient care are influenced by others, then you won't serve your patients well. Over time it could take a heavy toll on you as a physician."

### The one thing that remains

The advent of the medical home model may be telling of something. The broad effects of economics may play a major role in how medicine is practiced, but one thing will continue to remain vitally important to patients and physicians alike.

"I love the responsibility of being a physician, and I love the relationships I have with my patients," Borchers said.

Rows and rows of medical files line Borchers' Ohio dermatology office. Some of the manila folders are stiff and new, but more often than not they are worn and filled with dog-eared paper. Borchers calls the patient files, books. Not because of their size, but because of what they contain.

"Each time a patient comes in I put in a new entry, and after so many years they become chapters of the book," she said.

Within the lines of diagnoses and test results are scribbled notes of when a daughter got married or a special vacation was taken. To Borchers, it is a testimony of what really matters and why she went into medicine in the first place.

"The interactions I have with patients are the same today as they were 25 years ago," she said. "People all want the same thing: they want to come and know that someone cares. They want a place where they can tell their story, and a physician's office provides that opportunity."

Likewise, LaCroix believes her position as a family doctor gives her a unique responsibility to listen to patients and do what is right, even when it means no medical intervention.

"There are some patients who have had all these procedures done and they're suffering from a terminal illness," LaCroix said. "Why? Because no one has said it is okay to just stop. As a family physician who has a good relationship with a patient, I can do that. I can tell them that we don't have to keep doing this."

And when the patient agrees, LaCroix has a response.

"Sometimes all we can do and should do is hold their hand," she said.

And that, she admits, is not anything she could have learned in med school, but only something she had to learn in her decades as a doctor. **VS** 

#### We'd like to hear from you

Tell us how the practice of medicine has changed since you graduated from medical school. We'll publish highlights from your comments in the next issue of Vital Signs. Send your observations to cindy.young@wright.edu

### A Second Opinion

## From the beginning...

More than 30 years have passed since John Lyman, M.D., ('80) left his research career at NASA to become part of the charter class at a brand new medical school John Lyman, M.D. ('80)



One of the greatest pleasures in my career in medicine was being a part of Wright State's charter class. It's been more than

three decades since I decided to leave my career in research at NASA to pursue my dream in medicine, but I can remember my first year at Wright State as if it were yesterday. The school leadership—looking to create an inaugural class that was diverse—gathered together a bright and unique group of students.

I may not have known it in 1976, but later I found out that I—along with a poet, a mailman, a Vietnam helicopter pilot, and a homemaker, to name a few—was chosen by Wright State to

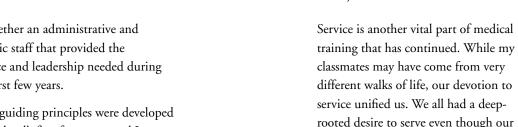
bring maturity and experience to the group that would also be made up of students fresh out of undergrad school. Despite our different backgrounds, we instantly blended together, and we benefited from the diversity and richness that others brought through their experience.

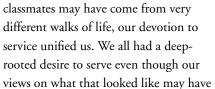
I believe it is only in retrospect that I truly appreciated the education I received and fully understand the monumental task of creating a medical school. There is no doubt the foundation that was laid and the advantages received from being part of a charter class readied me for the intense years that would follow in residency and full-time practice.

Wright State has been blessed with outstanding leadership since its inception. Dr. John Beljan, founding dean of the medical school,

put together an administrative and academic staff that provided the guidance and leadership needed during those first few years.

Several guiding principles were developed in the school's first few years, and I am proud to see that they have continued. The spirit of collaboration that was such an important part of Wright State's foundation is still evident today. I feel this collaborative spirit as I walk around the campus today and participate in Wright State activities.





varied. I credit this spirit of service to the school's admissions committee and applaud the members for making it such a high priority in the students it sought.

As a member of the admissions committee for more than 10 years, I have learned first hand that a service mentality remains a priority.

We knew Wright State's future depended on our success as a founding class, and so we seemed to put extra emphasis on teamwork to make sure it happened. Innovative learning and intense immersion into the health care

environment were just a few life-altering experiences that benefitted me at Wright State. We all would take those unique experiences with us into the health care field where opportunities—both within and without the United Statesremain limitless. VS



An early classroom in the medical school

### Faculty in Focus

#### A dream forgotten. A dream fulfilled.

Like many women of her generation, Jan Duke gave up her dream of medical school when she married and started a family. But at the age of 48, she changed her mind...

Cory MacPherson

### She had always wanted to be a physician, but life led her down a different path.

"Periodically in your life, you have times when you reevaluate what you're doing... whether or not you want to continue or make a change," she said. "And when I had those times in my life, I would always think 'medical school,' and then I would sigh and say, 'no, not right now."

But sometimes life unfolds in unexpected ways, and it finally allowed Janice Duke, M.D., associate professor, obstetrics and gynecology, to realize her life-long dream at the age of 52.

#### **Ozzie and Harriet**

Duke grew up in small-town Illinois during the 1950s. Her father was a physician and her mother was a "professional volunteer." It was a relatively quiet, peaceful upbringing.

She attended Wittenberg University, earning her bachelor's degree in chemistry. She had every intention of going to medical school, but something happened that she hadn't foreseen:

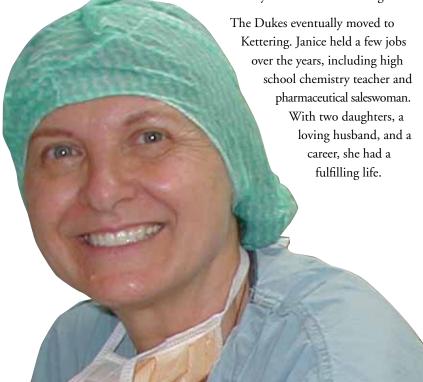
She fell in love.

16

Duke married her husband, Bruce, before her undergraduate senior year. In doing so, she felt that she had to choose between being a wife and mother and becoming a doctor. "I grew up with Ozzie and Harriet," she said. "I didn't think I could work and have a family at the same time."

So Duke put her dream on the back burner, getting her master's in biochemistry at Ohio State University instead. After her graduation, the Dukes moved to Michigan so Bruce could teach at Albion College. Janice found a job with General Foods doing research and development for the Post cereal brand. Early in that position, Duke became pregnant with the couple's first child.

"The policy at the time was that you had to leave your job if you got pregnant," she said. Women had to stop working when they were past the first trimester. Not wanting to leave the workforce, Duke challenged tradition. With the help of a supportive supervisor, she was able to change the policy for the company nationally and continue working.





"But I always kind of regretted not going to medical school," she said.

#### **Dusting off the dream**

In 1990, the Dukes attended a neighborhood block party. They fell into conversation with a neighbor who told them about a 52-year-old woman who had sued a university in Indiana for age discrimination, won, and was finally admitted.

"I had really just given up the idea of med school by that point in my life," said Duke. "I was 46 and, at that time, everyone thought you couldn't go if you were over 40. But when I heard that story, I thought, 'Hey, I'm not 52 yet."

"My husband and I just looked at each other, and I knew I had to try."

Duke was admitted to Wright State's Boonshoft School of Medicine and began classes in 1992 at the age of 48. In a class of 83 students, she was the oldest.

She dove into her studies headfirst, becoming very active with her class. She impressed the faculty and her peers, serving as class officer all four years. She said she never felt any prejudice or that she was treated differently because of her age.

Patients, however, were often confused by Duke's maturity. Sometimes, they thought she was the attending physician because she was the oldest in a group. Sometimes, they would look to her for confirmation of a more senior, but younger physician's diagnosis.

"They didn't know quite what to do with me," she said.

Her studies also allowed her to bond with her daughters. When she started medical school, her youngest, Rebecca, was a senior in high school and her oldest, Kelly, was a sophomore in college. The three often found themselves doing homework at the same time. Rebecca even brought home a fetal pig for Duke's birthday that year, and the two dissected it together.

"It was so sweet," said Duke. "She had to work with her biology teacher to get it for me."

Duke made it through medical school with hard work and determination. She found that she had to study a little differently than she did in her younger days. She relied less on memorization and more on visual, hands-on experiences. Her family helped accommodate long hours of studying by picking up extra chores around the house.

She continued to do well, choosing obstetrics and gynecology as her specialty. When she accepted her diploma in 1996, she was fourth in her class.

"Being a nontraditional student didn't intimidate me," she said. "You never stop learning no matter what you do in life. So, in a way, we're all nontraditional students."

#### A teacher's travels

Since her graduation, Duke has incorporated two of her passions into her medical career: teaching and traveling.

She's practiced medicine on at least three continents. She spent time on a Navajo reservation out West doing obstetrics and gynecology work and has made two trips to Africa, where she worked in a small hospital on the slopes of Mt. Kenya.

"I get such good feelings when I think about Kenya," Duke said. "It's a beautiful country, and I enjoyed working there." Her time in the Kenyan hospital made her feel fortunate to be born in the United States. She saw firsthand how poverty and diseases like AIDS and malaria can ravage a country.

"The people are very poor, and there's a huge medical need, but they never act like they are poor," she said. "People are so willing to share what they have and open up their doors to visitors."

She also learned a great deal about resource allocation. Because resources were so hard to come by at the hospital, Duke had to learn to determine where they would do the most good.

"It's hard when you have 10 people with AIDS, but you only have enough medicine for one," she said.

Back home in the states, Duke is busy sharing her talents with others. She sees patients at Miami Valley Hospital on a daily basis, both in her private office and with residents and medical students. In her role as a member of the medical school faculty at Wright State for just over a decade, her teaching encompasses lectures, research, and clinical mentoring in the clinic, labor and delivery, and the operating room. As an associate professor, Duke lectures in courses on anatomy and reproductive health. She also started the obstetrics and gynecology club for the medical students.

However, she prefers teaching in the clinical setting as opposed to lecture-based courses. As director of gynecology for the Department of Obstetrics and Gynecology she continues to look for new ways to teach medicine. A new clinical arena is robotic surgery, and she has started to perform robotic surgery for her patients with her partner. In the near future she looks forward to being part of teaching robotics to the residents.

"I've always loved teaching," she said.
"It gives me energy and makes me feel younger."

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Each year, Duke (second from right) takes a group of students to Bolivia to staff a clinic in the Amazon River basin.

Duke has found a way to combine both her love of teaching and her love of traveling. Each February, she takes a group of medical students to Bolivia to expose them to international medicine. She works side-by-side with the students there as they staff a clinic in the Amazon River basin. The clinic provides free routine patient care to those without the ability to pay for such services; and the work is done almost entirely in Spanish.

Though most of her travel these days involves visiting her daughters and grandchildren, Duke still has one trip on her bucket list.

"I would love to visit Antarctica," she said. "I want to see the penguins."

#### **Inspiring others**

Although her road to medicine was long and winding, Duke said the payoff was well worth it.

She loves seeing patients year after year, getting to know them and their stories. She loves delivering babies, seeing the excitement on their parents' faces. She thinks surgery is "so fascinating" and can make an immediate impact on someone's life.

Most of all, Duke loves to see a patient with a problem and fix it.

"Not that anything I do is really a miracle, but being able to help someone is really gratifying," she said.

Duke still loves to learn. She often finds herself reading medical journals or websites in her free time. She hopes that her trips to Bolivia will improve her Spanish. Duke's passion for medicine and her determination to follow her dreams inspire those around her. Her daughter Rebecca, the one who got her mother the birthday pig, later graduated from medical school herself. Others have told Duke that they read an article about her graduation in the *Dayton Daily News*, and it motivated them to do something they hadn't thought they could.

Duke continues to encourage others to hold on to their dreams. She tells them it can be difficult to do what you want to, but that you should never give up.

"It's still miraculous to me that I did this because I had given up on my dream," said Duke. "But I really believe that anything is possible." VS

### On the Move



### Cynthia G. Olsen, M.D., FAAFP, CMD Acting Chair, Department of Family Medicine

An alumna of the Boonshoft School of Medicine, Cynthia G. Olsen, M.D., FAAFP, has served the Department of Family Medicine for more than 25 years. She came to the department in 1985 as a clinical instructor. She was promoted to assistant professor in 1988, associate professor in 1993, and professor in 2007. She has also served as a professor in the Department of Geriatric Medicine since 2007.

Olsen has held several leadership roles within the department during her tenure. Since 1993, she has served as executive vice chair of the department, responsible for internal operations, and since 1997 she has served as director of clinical operations. With a devotion to patient care, Olsen served as medical director for the Yellow Springs Family Health Center for more than 18 years. She earned a Bachelor of Science degree from Ohio State University and an M.D. from the Boonshoft School of Medicine in 1985. Olsen is a member of the American Academy of Family Practice, the American Geriatrics Society, the American Medical Director's Association, and the Society of Teachers in Family Medicine, among others. She is board certified by the American Board of Family Practice.



### Richard W. Pretorius, M.D., M.P.H. Assistant Dean for Quality and Primary Care Research

Richard W. Pretorius, M.D., M.P.H., professor in the Departments of Geriatrics and Family Medicine, has been named assistant dean for quality and primary care research. As assistant dean, he will work with Boonshoft School of Medicine departments and the Wright State University Interdisciplinary Gerontology Team to enhance community-based research in the area of health services delivery.

Before coming to Wright State, Pretorius served as associate professor of family medicine at the State University of New York at Buffalo, where he was also founder and director of the Medical Education Teaching and Research Innovation Center. He was also affiliated with the University of Iowa College of Medicine for 13 years, where he held a variety of administrative and clinical teaching appointments.

Pretorius earned his B.A. in biology and chemistry from Wittenberg University, his M.D. from the University of Virginia, and his M.P.H. from the Medical College of Wisconsin. He received the Innovation Award in Medical Education from the Association of American Medical Colleges in 2009.

### A Closer Look

#### To Boldly Go

Aerospace Residency grads serve on the front lines of space exploration

Jim Hannah

They populate space programs around the globe and have even gone into space. They are key figures in aviation-safety agencies and vital to the operations of commercial airlines.

They are the physician graduates of Wright State University's 33-year-old residency program in aerospace medicine, a specialty in which residents rotate through, among others, the NASA Kennedy and Johnson space centers.

Wright State Boonshoft School of Medicine's NASA-funded aerospace medicine residency program, established in 1978, promotes the health and well-being of pilots, astronauts, and other air and space travelers. It is the oldest civilian aerospace medicine training program in the United States, having graduated more than 100 physicians and attracted students from over 25 foreign countries.

Those interested in aerospace medicine share a common belief.

"I'm pretty much convinced that the future of mankind is to move beyond Earth," said Farhad Sahiar, M.D., M.S., director of Wright State's Aerospace

Medicine Residency Program. "We may not do it in the next 10 years or the next 20 years, but eventually our destiny lies in our capability of colonizing other places in this universe. I think every resident that comes through this program has that same conviction. That's what drives this specialty."

Sahiar's interest in space began in his native India. He was a flight surgeon in the Indian Air Force, rotating through helicopter, fighter jet, and medical evacuation units. In 1984, his father was the chief scientific coordinator for India's one and only human space flight mission, in which an Indian cosmonaut, Squadron Leader Rakesh Sharma, flew aboard the Salyut-7 space station, making him the 138th human to visit space.

"I saw him work on all of the human space flight protocols, the selection of the cosmonaut, the training, the in-flight experiments, and the medical evaluations," Sahiar recalled. "I said, "That's what I want to do."

At the time, Wright State offered the only civilian residency training program in the world for aerospace medicine. Sahiar arrived in 1991.

The same that

Sahiar says every element of medical education is covered in the four years of medical school—except aerospace medicine. "In aerospace medicine, you're basically training the residents from ground zero," he said. "This is where you teach them the fundamentals first, and then the resident gets to apply this knowledge when completing their various rotations."

Sahiar said the toughest part of his job is trying to find the most interested, motivated, qualified residency candidates at a time when many medical school graduates are looking for careers that will quickly enable them to pay off the debt they accumulated to finance their education.

The two-year training program, which consists of course work and research, leads to a Master of Science in Aerospace Medicine. Residents complete their rotations at various aviation and space facilities such as the NASA Kennedy Space Center at Cape Canaveral, Florida, the NASA Johnson Space Center in Houston, the FAA's Civil Aerospace Medical Institute in Oklahoma City,

Wright-Patterson Air Force Base, and even the coroner's office in Dayton, Ohio.

At the Kennedy Space Center, residents learn about the aeromedical preparation and staging for space shuttle flights—including pre- and post-flight management of astronauts. "It's a very complex operation that takes place there," Sahiar said. "You've got to prepare for any type of contingency." The residents learn from exercises covering multiple emergency scenarios—from an explosion aboard the space shuttle to an aborted mission that results in an ocean splashdown.

"They will see us go through all of our planning for a mission where we stage our resources, handling any issues that may arise. We have a triage team to support the launch and landing," said Philip Scarpa, M.D., M.S., a NASA flight surgeon and clinical associate professor in the Boonshoft School of Medicine, who supervises Wright State's rotation at Kennedy. "We also do pre-flight examinations and family visitations and quarantines and health stabilization."

Sahiar said aerospace medicine is the only specialty that manages the normal human being in an abnormal environment. Residents in the program study the effects of micro gravity, acceleration forces, low oxygen content, extreme radiation, and even the psychological impact of isolation, loss of family contact, and living in confined spaces.

"Being in a tin can for a long time can take its toll," said Scarpa. "NASA performs a lot of isolation experiments."

Astronaut Michael Barratt, M.D., M.S., came out of Wright State's aerospace medicine program and flew on the space shuttle, and the International Space Station. Boonshoft School of Medicine-graduated physicians hold important positions at Kennedy Space Center

(KSC) including Drs. Scarpa, David Tipton, Daniel Woodard, John Darwood, and Luis Moreno. Several other Aerospace Residency grads work in important posts at Houston's Johnson Space Center (JSC), home of Mission Control. These include Drs. Jeffrey Davis, James Logan, Smith Johnston, Rainer Effenhauser, Philip Stepaniak, Terrance Taddeo, Edward Powers, Richard Scheuring, and Robert Haddon. Some graduates are medical school clinical faculty members who supervise the residents' rotation at JSC.

Residents in the aerospace medicine program also rotate through the FAA's Civil Aerospace Medical Institute (CAMI), which gets more than 400,000 cases a year. They study passenger safety and survival as well as aircraft accident investigation. At the FAA, there are currently seven physicians from the Wright State program working in the Office of Aerospace Medicine. Their duties include everything from medically assessing the fitness of pilots and air traffic controllers for duty, studying psycho-physiological effects of workload and fatigue, and analyzing the medical factors in aircraft accidents.

"The WSU residency program has been very effective in preparing physicians to address the current and emerging challenges of a constantly evolving civil aviation and commercial space sector in the U.S." said Melchor J. Antunano, M.D., M.S., director of CAMI and a Boonshoft School of Medicine residency graduate.

Residents may also complete a rotation at the National Transportation Safety
Board. Sahiar said residents are required to have the skills to conduct an aircraft or spacecraft accident investigation and must pass a graduate course on it. "We've had our residents rotate through our downtown coroner's office to study what trauma or accident cases look like," he said.

Residents in the Wright State program also gain experience at Wright-Patterson Air Force Base through use of the hyperbaric chamber, one of the largest in the world. Hyperbaric oxygen therapy is the medical use of oxygen at a higher level than that at atmospheric pressure. It is the only definitive treatment for decompression sickness, an illness in which gas bubbles form in tissues when an individual is suddenly exposed to low barometric pressures, or to the vacuum of space.

The largest aerospace medicine residency program is operated by the United States Air Force, which is in the process of moving it from Texas to Wright-Patterson. The move will enable closer collaboration between Wright State and the Air Force in sharing knowledge and expertise.

The training has evolved over the years. "What has changed is the more practical involvement—these experiences that a flight surgeon typically has during his or her career," he said. "You cannot acquire all of these experiences in one sitting."

As part of their education, residents are required to complete a research project. "We are literally looking at things that haven't been discovered as yet," Sahiar said. "We don't have answers. There are more questions than answers."

Scarpa has been involved in Wright
State's residency program at Kennedy
since 1994. "We have worked
conscientiously at making the Kennedy
Space Center program an excellent
training experience for space medicineminded people." he said. "I've been told
that it's a must-have for anybody
interested in aerospace medicine.
There are very few programs like this
in the world." **VS** 

NASA photo ISS027-E-012224 April, 12 2011



### Research Spotlight

### Little Holy Grails

WSU researchers on a quest to investigate the critical role carotid bodies play in controlling breathing

#### Karen Strider-liames

Like Sir Galahad searching for the Holy Grail in the Arthurian legend, Christopher N. Wyatt, Ph.D., is on his own quest... to discover how the carotid bodies control breathing. In fact, he has been on a crusade to unlock the mysteries of these tiny oxygen-sensing organs since 1991.

"Defining the oxygen-sensor in the carotid body is like questing for the Holy Grail," said Wyatt, a researcher and assistant professor in the Department of Neuroscience, Cell Biology, and

### "It's like being paid to do a hobby; it's just constantly interesting"

Physiology. "Actually, there seem to be lots of little Holy Grails in carotid body research," he admitted.

The size of a grain of rice, the carotid bodies are located at the bifurcation of the carotid arteries in the neck. They sense oxygen and carbon dioxide levels in the blood. If the blood oxygen level falls, these neurotransmitter-rich organs fire and send a signal to the respiratory control center in the brain, which ultimately corrects the pattern of breathing. This is known as the hypoxic ventilatory response.

"We've known that carotid bodies are sensitive to oxygen for decades, and we know parts of the mechanism, but we still don't really know how it works," he explained. So Wyatt is extending the studies into how the carotid body actually senses changes in oxygen.

"My recent research has indicated that the energy-sensing enzyme AMP-activated protein kinase (AMPK) is critical in the transduction of hypoxic-signaling by the carotid body," he said. "We believe this enzyme is very important."

Funded by the National Institutes of Health and the American Heart Association, Wyatt and his research team are testing a hypothesis that low oxygen is sensed by mitochondria in the cells of the carotid body, and that the mitochondria are linked to cellular excitability by AMPK. They compare the hypoxic ventilatory response in normal mice with mice that have the AMPK enzyme knocked out. In their studies, normal mice breathed faster during hypoxia, while the enzyme-deficient mice did not.

Research is proving the hypothesis to be true. Wyatt and Heidi Jordan, a Ph.D. student he supervises, will present their most recent findings at the 18th meeting of the International Society for Arterial Chemoreception in Hamilton, Ontario, Canada, this summer.

"Once we understand how this mechanism works, then we can start

to look at how it goes wrong," he added. Future applications of this research could address medical problems such as sleep apnea and sudden infant death syndrome (SIDS).

"One of the reasons I'm achieving my goals is that I have good collaborations both within Wright State and internationally," Wyatt noted. His chief collaborator is Professor Mark Evans at the University of Edinburgh, Scotland, UK, but a joint project with Tom L. Brown, Ph.D., associate professor in the WSU neuroscience, cell biology, and physiology department, is also producing interesting data. He added that he couldn't complete his research without his students Heidi Jordan, Ryan Shapiro, and Thao Tran, and especially Barbara Barr, his lab manager and technician.

A third-generation scientist, Wyatt's love of research is no surprise. "It's like being paid to do a hobby; it's just constantly interesting," he said. His oxygen-sensing research has been published in many scholarly journals, and he has been invited to present at numerous conferences, both here and abroad.

Wyatt hails from Britain, having been born in Manchester, England. After earning a degree in pharmacology from the University of Bath in the United Kingdom, he earned a Ph.D. from the University of Leeds, UK. But he didn't stop there; he pursued postdoctoral work at University College London, Oxford University, and the University of St. Andrews, uniquely positioning him to compete for research opportunities.

One of those opportunities came from across the "Pond" in 2006. Robert W. Putnam, Ph.D., a researcher and professor in the Department of Neuroscience, Cell Biology, and Physiology at Wright State, sent an email soliciting applicants for research positions to some of his British colleagues. One of them shared it with Wyatt, who applied and was accepted. He soon left the remote Scottish fishing village where he was living to accept a position at Wright State.

Today he lives in Yellow Springs, Ohio, with his wife and their two sons. "I do like that Ohio has seasons; I love the seasons," Wyatt said. "Scotland only has one season… and summer lasts a day." VS



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### Research Spotlight

## Squeeze play

One in six parents forgoes pediatrician-recommended care for their insured children because of inability to pay, according to new study

**Cindy Young** 

As a pediatrician with a master's degree in public health, John Pascoe, M.D., is more attuned than most to the difficulties less well-off patients face paying for health care. In the past few years he noticed that more of his privately insured patients were having difficulty paying for the medications and treatments he prescribed, but he didn't know how extensive the problem was. So he decided to take a closer look.

What he found made national headlines.

Pascoe and his colleagues surveyed 1,978 southwest Ohio parents about the impact of their children's health insurance on their ability to follow pediatric recommendations, as well as or their child's health. Pascoe is professor and director of general/community pediatrics at the Boonshoft School of Medicine and a pediatrician at Dayton Children's Medical Center.

The investigators found that one in six area parents reported that his or her child had not received pediatricianrecommended care—medication, laboratory testing, and/or appointments with specialists—during the previous 12 months due to concerns over cost.

Pascoe and his colleagues presented their paper, "Parents' Perspectives on their Children's Health Insurance: Plight of the Underinsured," at the American Academy of Pediatrics (AAP) National Conference and Exhibition in San Francisco last fall. Coverage of the study appeared in media outlets nationwide, including U.S. Today Online, the Orlando Sentinel, the Baltimore Sun, U.S. News and World Report Online and MSN.com

Children were considered "underinsured" if their parents had not been able to follow at least one recommendation from a pediatrician during the previous 12 months due to insufficient insurance coverage. Thirty-six percent of parents with underinsured children agreed with the statement that their "child's health had suffered because of not being able to afford the cost of the needed care," compared to less than 2 percent of parents who were not underinsured.

"I've been practicing medicine for about 30 years, and it just wasn't like this before," Pascoe said. "It's really been in the last five to 10 years when families are being squeezed."

The study also found that private insurance is a risk factor for underinsurance among families with annual income between \$15,000 and \$34,999. In addition, children with poorer health were at greater risk of underinsurance compared to healthier children.

"This study has confirmed my sense of how bad it is out there for families," he said. "The system is squeezing the consumer."

The investigators speculate the high deductibles and co-pays imposed by private insurance companies are responsible for the high level of child underinsurance among lower-income families whose children do not qualify for public insurance.

"These results serve to highlight a major public health problem pediatricians have observed for years," said Pascoe. "And many parents believe their children's health has suffered as a direct result of their inability to afford recommended care for their underinsured children.'

The research was conducted in conjunction with the practices in the Southwestern Ohio Ambulatory Research Network (SOAR-Net), a group of 14 area pediatric practices and clinics that collaborate on research to improve the health and welfare of children and adolescents.

Pascoe hopes the study will alert other pediatricians to the difficulties many insured patients and their families face when paying for medical care. "I hope that my colleagues who may be less sensitive to these issues, will become more sensitive when they read our abstract or paper," he said. VS

The abstract is posted on the AAP conference web site http://aap.confex.com/aap/2010/webprogrampress1010/Paper11071.html Also at med.wright.edu/soarnet/projects



### In Residence

## The Topic of Cancer

Surgery resident's passion for research leads to new insights into possible treatments for cancer

#### Cory MacPherson

A cure for cancer.

It's almost a cliché, like saying you want world peace at a beauty pageant. Yet it is a very real goal for many researchers who work tirelessly to stop this disease, which accounts for nearly one in four deaths in the United States.

One of those researchers is Rebecca
Tuttle, M.D., a third-year resident in
the Boonshoft School of Medicine
Department of Surgery. Together with
Wright State professor Steven Berberich,
Ph.D., chair of biochemistry and
molecular biology, Tuttle has studied a
gene that could play a role in stopping
the growth of cancerous tumors.

#### **Doctor since diapers**

Growing up with two physicians as parents, Tuttle was always fascinated by the science of the human body. She knew from an early age that she wanted to become a doctor herself.

The body is amazing in general, she said. She chose surgery as a specialty because "you really get to see the body's intricate workings."

Tuttle earned her bachelor's in chemistry at the University of Toledo and her medical degree from the University of Cincinnati before coming to Wright State for her surgical residency.

"I liked Wright State because all the faculty here are very approachable," said Tuttle. "They are thankful for your efforts and supportive of your learning. They advocate for your best interest."

Knowing early on that she wanted to pursue research, she took advantage of the research option offered by the Boonshoft School of Medicine. Residents here can choose to take two years off after their second clinical year to pursue medical research.

She spoke to Robert Fyffe, Ph.D., university professor, associate dean for research affairs and professor of neuroscience, cell biology and physiology in the Boonshoft School of Medicine, about her desire to do cancer research. He directed her to Berberich's lab, which was already making cancer-related discoveries.

#### **Yippee for cancer research**

Berberich and his research team were studying a gene called Yippee like-3 (YPEL3). They had already discovered that YPEL3 was directly activated by the p53 tumor suppressor proteins, and that activating YPEL3 triggered cellular senescence, causing cells to stop dividing.

This means that elevating YPEL3 could potentially stop cancer cells from multiplying and stop tumors from growing.

Berberich had been studying the gene from a basic science perspective, but Tuttle joined the lab with an interest in translating those findings into clinical cancer scenarios.

Together, Tuttle and Berberich looked at whether or not YPEL3 is down-regulated in human cancers and whether or not cancer cells are able to grow because the gene is inactivated.

"We were extremely fortunate," said Berberich. "Although Becky didn't have any previous cell biology research experience, her work ethic was phenomenal. She mastered the techniques with ease and was very talented in her ability to grasp the science."

Tuttle joined the laboratory just as the growth inhibitory effects of YPEL3 were being uncovered. She was a co-author on the initial 2010 publication in *Cancer Research* detailing YPEL3 as a p53 activated gene.

From there Tuttle engaged surgeons from the Dayton region in the project to address whether YPEL3 gene expression was lost in human cancers. Based on her preliminary study screening of eight human tumor types, Tuttle focused on colon cancers. In January 2010, Tuttle and Berberich, with several medical school surgeons, reported in the *Annals of Surgical Oncology* that colon tumors show a decrease in YPEL3 expression.

Berberich gives much of the credit for their success to Tuttle.

"Her work really elevated this project," he said. "It went from simply a gene that we thought was activated by p53 to really current belief that the YPEL3 protein represents a new target that can impact cell growth."

This YPEL3 research could one day lead to a treatment that would stop cancer in its tracks. Since the gene expression appears to be low in some human tumors, doctors could try to therapeutically reactivate the gene to halt a tumor's growth. Once the cancerous cells stop dividing, the body can remove them.

Not all human tumors lose the YPEL3 gene, said Berberich. But in those that do, a good treatment may be able to fix the problem. However, it could be years or even decades before a functional treatment could be ready for public use.

"We're trying to understand what makes cancer cancer, and that's difficult because every patient and every tumor is different," said Tuttle.

#### Life after the lab

During her two years in Berberich's lab, Tuttle found that she had a real passion for research.

"I missed surgery while I was doing the research, but I loved the creativity," she said. "It's very different being in the lab versus working with patients. You have a lot more leeway, and there are fewer consequences when something doesn't

work. You simply tweak the experiment and try again. You have the freedom to try anything you can think of."

Tuttle plans to finish her residency and become a breast surgeon. She knows that her research experience will help her land a more competitive fellowship spot.

It also taught her skills like grant writing and lab management that will one day help her fulfill another dream: opening her own breast cancer research laboratory. Her ideal career would be divided equally between surgery and research.

Still, life in Berberich's lab lingers in her thoughts.

"Steve and I became very good friends," she said. "We've stayed in contact through email and often discuss our research. I know we'll continue to collaborate in the future." VS



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### Milestones









### **Match Day**

There was much "Wearing of the Green" when Match Day fell on St. Patrick's Day this year

Wright State-colored shamrocks were everywhere at this year's Match Day on March 17, when graduating medical students gathered with family and friends to find out where they will spend the next three to five years as residents.

Wright State students matched in outstanding programs in Dayton, throughout Ohio, and across the country, including the Mayo Clinic's Mayo School of Graduate Medical Education, the University of Pennsylvania School of Medicine and the University of Chicago Medical Center. Nearly half of the graduates will remain in Ohio during residency, and 44 percent will enter a primary care field such as family medicine, internal medicine, or pediatrics.

**Kristine Busse** 

PGY1: Kettering Medical Center,

Marzena Buzanowska

UPMC Medical Education

Boonshoft School of Medicine

University of Maryland Medical

Obstetrics/Gynecology Advocate Masonic Medical Center

Nicholas Creasap Internal Medicine/Family Medicine

PGY1: Jewish Hospital, Cincinnati,

PGY2: Western Pennsylvania

Boonshoft School of Medicine

Hospital, Pittsburgh, PA

St. Vincent Hospital Center

PGY2: University Hospital-Cincinnati,

Physical Medicine & Rehabilitation

Dermatology

Kettering, OH

Cincinnati, OH

Pittsburgh, PA

Natalie Calcatera

Surgery-General

Dayton, OH

Joy Chang

Baltimore, MD

**Anna Claugus** 

Family Medicine

Charlotte, NC

Chicago, IL

Indianapolis, IN

Anesthesiology

**Jacob Deister** 

Dayton, OH

Orthopaedic Surgery

Michelle Dacosta

Carolinas Medical Center

**Jacqueline Collins** 

Psychiatry

Center

#### **Omar Abousoud**

Radiology-Diagnostic PGY1: University of California Irvine, Orange, CA PGY2: Mt. Auburn Hospital, Cambridge, MA

#### Heidi Abraham

**Emergency Medicine** Boonshoft School of Medicine Dayton, OH

#### **Sherry Adkins**

Family Medicine Clinton Memorial Hospital Wilmington, OH

#### Anastazia Agin

**Pediatrics** Boonshoft School of Medicine Dayton, OH

#### Eugenia Amponsah

Radiology-Diagnostic University of Toledo Toledo, OH

#### Sean Ankrom

Internal Medicine/Pediatrics Ohio State University Medical Center Columbus, OH

#### **Brenden Balcik**

Emergency Medicine West Virginia University School of Medicine Morgantown, WV

#### Michael Baria

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Physical Medicine & Rehabilitation PGY1: Kettering Medical Center, PGY2: Mayo School of Graduate Medical Education, Rochester, MN

#### **Nathaniel Barnes**

**Emergency Medicine** University of South Florida College of Medicine Tampa, FL

#### **Lucas Barton**

Psychiatry Boonshoft School of Medicine Dayton, OH

#### **Corey Baxter**

Obstetrics/Gynecology Naval Medical Center Portsmouth, VA

#### Kate Berenson

Psvchiatry University of New Mexico School of Medicine Albuquerque, NM

#### Matthew Binkley

Orthopaedic Surgen SUNY Buffalo School of Medicine Buffalo, NY

#### Robyn Bockrath

Pediatrics Northwestern McGaw/CMH Chicago, IL

#### Jason Broomhall

Radiology-Diagnostic PGY1: Kettering Medical Center, Kettering, OH PGY2: University Hospital, Cincinnati, OH

#### Katie Bullinger

Neurology PGY1: Kettering Medical Center, Kettering, OH PGY2: Emory University School of Medicine, Atlanta, GA

#### Philadelphia, PA Jesse Ewald

Ashley d'Silva

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#### Jason Ferrel

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Temple University Hospital

#### **Ryan Foster**

Family Medicine Grant Medical Center Columbus, OH

#### **Timothy Freeman**

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#### Larry Goldenberg

Tulane University School of Medicine New Orleans, LA

#### Ashkahn Golshani

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#### Francis Hartge

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#### Jessica Hayes

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#### Aurelia Holland **Pediatrics**

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**Vital Signs Summer 2011** 

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#### Vamsi Koduri

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Brooklyn, NY

#### Dermatology

Ohio State University Medical

Internal Medicine University Hospital-Cincinnati Cincinnati. OH

#### **Ashley Limkemann**

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#### Amy Lotz Family Medicine

University of Louisville School of Medicine Louisville, KY

#### **Ronald Maag**

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#### Cameron Mahle Internal Medicine

Einstein/Beth Israel Medical Center New York, NY **Mark Mankins** Surgery-General

#### Central Iowa Health System Des Moines, IA

Kristin Manson **Pediatrics** Naval Medical Center San Diego, CA

#### Nicholas McGregor

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#### Katherine Meister

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#### Brian Merrill

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#### Sara Moncrief Surgery-General

Maricopa Medical Center Phoenix, AZ Kristen Nathe Orthopaedic Surgery

#### Palmetto Health Richland

**Robert Neff** Obstetrics/Gynecology Ohio State University Medical Columbus, OH

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#### **Amanda Olson**

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#### Smruti Patel Obstetrics/Gynecology

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#### Jason Phillips

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#### Micah Prochaska Internal Medicine

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#### **Brandon Pyles**

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#### Melanie Raffoul Family Medicine

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Anjali Rao Family Medicine UC Davis Medical Center Sacramento, CA

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#### George Salloum Transitional Year

Kettering Medical Center Kettering, OH **Edward Schmitt** 

#### Transitional Yea Summa Health/NEOUCOM

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Jessica Secor Vascular Surgery University of Wisconsin Hospital & Clinics

#### Madison, WI **Dustin Luke See**

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Whittier, CA **Christopher Warrell** Orthopaedic Surgery

#### Orlando Health Orlando, FL Sarah Wilson Psychiatry

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#### Susan Woo Pediatrics

Christ Medical Center Oaklawn, IL Yue Yuan

Indiana University School of

#### Medicine Indianapolis, IN

Internal Medicine

Jessica Zagory Surgery-Genera Louisiana State University School of Medicine New Orleans, LA

#### Joanna Hurrell

Family Medicine

**Matthew Jaruwannakorn** 

Columbus, OH Andrea Johnson Internal Medicine

Seth Kettel Family Medicine

Jennifer King

Melanie Kreiner

Jess Levy Psychiatry Indiana University School of

Sean Lewis Otolaryngology SUNY Health Science Center

#### Yuchun Liao

Columbus, OH **Margaret Likins** 

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### Milestones









### Graduation

After dedicating four or more years to intense study and rigorous, specialized training,

the 101 members of the Wright State University Boonshoft School of Medicine class of 2011 were awarded M.D. degrees during the school's commencement ceremony on Friday, May 27.

In addition to the conferring of degrees, the evening event, held in the Schuster Performing Arts Center in downtown Dayton, included a "hooding ceremony" in which graduates received traditional regalia denoting their status and profession. The graduates also took a professional oath to mark the start of their medical careers and signed a registry to commemorate their first use of the initials M.D. following their names.

Samuel Shem delivered the commencement address entitled "How to Stay Human in Medicine." Samuel Shem is the pen name of Stephen Bergman, M.D., Ph.D., a graduate of Harvard College (Phi Beta Kappa), a Rhodes scholar at Balliol College, Oxford, and a graduate of Harvard Medical School, who served on the faculty of Harvard for 35 years.

In addition to the degrees, several special awards and honors were presented during the ceremony:

#### Appreciation Award—

Premier Health Partners

#### Dean's Award—

Christopher S. Warrell
For commitment to academic excellence, empathy and compassion toward others, personal integrity and professionalism, and earning the respect and trust of classmates and faculty

### Arnold P. Gold Foundation's Leonard Tow Humanism in Medicine Award—

Jess D. Levy (student) and Karen Kirkham, M.D., assistant professor of internal medicine (faculty) For consistently demonstrating compassion and empathy in the delivery of care to patients.

#### Teaching Excellence Award—

William Rundell Jr., M.D., clinical professor of surgery

For outstanding professional skill and pride in discharging his instructional duties









### Future Docs

## A family affair

**Cindy Young** 

When Jake Deister decided to switch careers and attend medical school, he and his wife planned for every contingency—then life intervened

Jake Deister had a good life.

He had a beautiful wife, a great job working for Montgomery County as a political liaison between the county and its cities, and a nice home.

"I had a really good job that was 8 to 5, no weekends," he said. "It was a really good life we had. The kind of life that everybody wants."

Then one day he decided to go to medical school.

He discussed it with his wife, Brooke. They methodically counted costs, made plans, set goals, and embarked on their journey. But life intervened in ways Jake and Brooke never imagined.

#### The decision

In his job with Montgomery County, Jake had lobbied to restore state funds to a program run by the Bureau for Children with Medical Handicaps (BCMH), which provided money to families with children who are disabled and who have exhausted their medical insurance coverage.

He heard stories from families who were forced to divorce to get aid and those whose children's lives depended on getting the assistance. "I spent a number of months trying to lobby for them on their behalf," he said. "There was no support for it. The frustration of that was tremendous."

He realized he wanted to help people but in a more direct way.

But medical school wasn't even on his radar until one of his brothers became paralyzed by Guillain Barre, an autoimmun disorder that causes the body's immune system to attack parts of the nervous system. His brother was a on a college mission trip as a basketball player in India when he was stricken.

"My four brothers are my best friends, and there's no one that approaches them," he said. "To watch this strong guy be paralyzed was very hard."

His brother was flown home to be treated at Miami Valley Hospital, where the family met with an internist.

"The doctor sat with us in our room for over two hours and talked with us," Jake said with amazement.

The next day, Jake was sitting in the Wendy's at Miami Valley with his mother when she said, "Why don't you be a doctor?"

"It's like a light went off, and I said I have to figure this out," he said.

With a B.A. in philosophy and an M.B.A from the University of Cincinnati, Jake

had never taken any of the courses necessary for admittance into medical school, so he had to start from scratch. He wasn't even sure if he would like medicine. So in the fall of 2004, two weeks after the quarter had begun, he enrolled in anatomy and physiology at Wright State.

His decision was made after five minutes in his first class in anatomy. "When I saw how amazing it was, things that I didn't even know existed—just in a basic anatomy course—it just hit me, and I said this is it."

He talked to Brooke, who agreed to support him with just one stipulation: she did not want to delay starting a family.

They set about making detailed plans. They would both return to school, Jake to take the premed courses he needed and Brooke to finish her nursing degree so that she could support them while Jake attended medical school. They sold their house and moved into a smaller two-bedroom condo.

#### How hard can it be?

"I remember having a thought before medical school," said Jake. "How hard can it be? I can work hard. I can study hard. Can it really be that hard?"



Jake wonders how he could have done medical school without a wife and four kids. "If I didn't have that my whole life would be medicine, and I think that would be too much." Jake and his wife, Brooke, with their brood (left to right) Jacob, Westin, Will, and Julia.

As it turned out, it was much harder.

On January 3, 2005, Jake quit his job and went back to school full time as an undergraduate. To pay the bills, he and Brooke waited tables in a restaurant while they attended school. "I remember the first time that I actually served food to one of my former employees," he said. "It was a very humbling time and a very hard transition of lifestyle for both of us."

During those two undergraduate years, Jake and Brooke had their first child, Jacob. Six days after the birth, Brooke returned to class, baby in tow.

In 2007, Jake was accepted into medical school at the Boonshoft School of Medicine. "We set some goals for ourselves about how we're going to do this," Jake says of his entry into medical school.

The goal was to maintain as normal a family life as possible, including weekly dates for him and Brooke. "The problem is that no matter how much you try to count the costs of what medical school is going to be like, you can't. There are just too many variables," he said. "And for us, the variables were more kids."

### Medical school and more babies

When Jake started medical school, Brooke was working full time as a nurse at Miami Valley Hospital and expecting their second child. Will was born that November.

During Jake's second year, Brooke found herself pregnant again—this time with twins. "The third pregnancy was a shock," said Brooke. "When we found out there were two..." her voice trailing off.

With their new family expanding to six, they decided to sell their two-bedroom condo and buy a larger house. Jake had settled on a career in orthopaedic surgery and was working hard to keep his grades up so he could get into a good program.

Things were fine until seven weeks before the twins were due. Jake got a frantic call from Brooke following a routine doctor's visit for an ultrasound. She told him they had to meet. He met her at a local restaurant where she handed him a piece of paper.

"It was a note from the obstetrician that said spina bifida vs. encephalocele,"
Jake said. "Brooke didn't know what encephalocele was. I'm glad she didn't, and I didn't want to tell her." They were both devastated.

Encephalocele is a rare neural tube defect that causes a protrusion of the brain and

the membranes that cover it through an opening in the skull.

Brooke was put on bed rest and was unable to work while the doctors ran tests to determine exactly what was wrong with the daughter she carried and how to treat her. The maternal fetal medicine specialists determined there wasn't any brain in the tumor. But they didn't know what it was—and it was growing fast.

The twins were born at 39 weeks at Miami Valley Hospital. Their daughter had a large tumor on her left side between the back of her head and her left shoulder. It was much larger than anyone had expected. Her twin brother, Weston, was fine.

#### The worst of times

In addition to the emotional anguish of worrying whether his daughter would survive, Jake had a big exam coming up three days after the twins were born, and he had to move into a new home.

"Brooke is obviously trying to recover from a difficult labor and delivery," Jake said. "We've got other kids who have their things going on. We sold our house that week and we're living in the ICU at Children's hospital, trying to manage all of this. It was exhaustion beyond anything I've ever dealt with."

Jake left the hospital the day after they were born and went to White Hall at Wright State to study. "I bought a case of Monster Energy Drink, and I stayed up for 72 hours straight studying for the exam and took the exam," he said. He passed the test.

The week after the exam his new daughter, Julia, underwent numerous tests and major surgery at Children's Medical Center of Dayton.

She has made a complete recovery. "She is beautiful," Jake said. "The only thing that you could see now is a very small

scar and her left shoulder sits a little lower than her right."

"That was the hardest thing we've ever been through," said Jake.

#### A little help from our friends

With the birth of twins, Jake and Brooke found themselves with four kids in diapers, Brooke working full-time as a nurse to pay the bills, and Jake keeping up with his studies so he could match into orthopaedic surgery.

He dealt with the lack of sleep by studying standing up. "I always study standing up," he said. "It keeps me awake because I know I'm not going to fall over."

They also had help from fellow medical students. "When we had our kids, we never had to worry where meals were coming from," he said. His classmates supplied meals for a month.

"We've been so blessed," said Brooke.

"When we had Will, here are all these
23-year-old guys who are single and
they're bringing us meals to our house.

Ten of his classmates showed up to help us
move when we moved into this house."

"We take care of each other," Jake says of his classmates. "I have friends at other medical schools, and it's not like this."

#### A family affair

Jake is sometimes asked how he does it all with kids. "And I wonder how you would do it without," he said. "Because at least I have something that I can go home to. I have kids running up to me saying Daddy, Daddy, Daddy. If I didn't have that, my whole life would be medicine, and I think that would be too much."

"Somehow he squeezes more out of a day than anyone I've ever known," his classmate Jason Ferrel said of Jake. "His wife does the exact same thing. I don't know how they're able to do as much as they do."

Jake credits his wife and parents. "I don't know that I could have gotten through four years of medical school and everything we dealt with if it weren't for a wife who's extraordinary and parents who instilled an ability to cope under duress.

"I've never met a woman like my wife," he said. "I don't know how she does it. And she never complained about having to do anything. She just says 'this is what we're dealt with, and we're going to do it.' She's just amazing."

Jake and Brooke met when Jake's brother, Jesse, played basketball at Wright State under then-coach Ed Schilling. Brooke was best friends with Coach Schilling's wife. Playing matchmaker, the coach and his wife tried to fix her up with Jake's brother, but she caught Jake's eye instead. They were married a little over a year later.

#### Just do what's in front of you

"From the time I was five years old, Dad made us have a little job," Jake said of his father. When Jake was in high school, his folks bought a plot of land with a barn and no house because it had been destroyed by fire.

His father decided that the family would live in the barn while his five sons built a house for the family to live in. Jake and his four brothers slept in the hayloft and his parents shared a bunk bed in the stall beneath for six months while the boys built the new house.

"We didn't even think it was abnormal because you just do what's in front of you," Jake said. "That was one of the phrases my Dad always said. Just do the next thing.

"He instilled a very strong work ethic in us from the time we were little kids," he said. "It's just what you do. You work before you play. And we played hard."

The five boys went on to do both. Two of his brothers played professional



basketball, another currently plays basketball at West Point and his older brother is a successful marketing director.

#### **Working with his hands**

Although Jake enjoyed all of his clinical rotations, he discovered that orthopaedic surgery appealed to him the most. "I think a lot of it had to do with the way I was raised," he said. "I worked on a construction crew, and then we built our own house. I liked to see something that was broken, use my hands to fix it, and then see the end result."

His dream was fulfilled on March 17 when he matched into the Orthopaedic Surgery Residency Program at the Boonshoft School of Medicine. "The fact that we matched here was the biggest dream come true I could ever imagine," he said.

Jake said that the scholarships he received allowed him to meet his goal of maintaining a normal family life for his wife and children while he pursued his dream.

"It meant the world to us. If we didn't have scholarship money, I have no idea what we would have done. I don't mean to exaggerate this. It saved our marriage, and it means our kids can grow up like normal kids. I can't thank these people enough," he said of those who have donated to scholarships.

### **Doctors, Iron Man and Buzz Lightyear**

Now that he's graduating, Jake can't believe it's almost over. "As I went through medical school, I kept on thinking, I just want to get done with it," he said. "I just want it over. And now this chapter in my life is done, and there's kind of a sadness with it. It's a rejoicing, but it's also a sadness."

After graduation, they're thinking of a family beach vacation in Florida before

his residency starts. And Brooke is looking forward to her retirement. "I've been working full time for six and a half years," she said. "I'm looking forward to maybe switching our roles."

She plans to stay home with the kids, especially since there's a fifth one due in November. Jake says it's probably their last, but who knows? "You never know," he said. "I get teased about it so much... oh, Jake's pregnant again. Yup, it's about that time of year..."

And at least two of their children are already considering careers in medicine... and as super heroes. "Jacob wants to be Ironman and a doctor," Jake said. "and Will wants to be Buzz Lightyear and a doctor."

#### **Count our blessings**

"The theme for our life is that we had a difficult time," said Jake. "Medical school was very hard for us. But there are people elsewhere who have it worse. We have to count our blessings and just be grateful that even though it was hard, I think we're blessed with a good relationship and four beautiful kids and the dream of being an orthopaedic surgeon. Life is good right now."

So Jake Deister still has a good life. In fact, thanks to his loving wife, the addition of four children (and another on the way), and a bright future in orthopaedic surgery, Jake has a wonderful life. **VS** 

### **Future Docs**

## Skating through life

Medical students learn life's lessons through volunteering for Special Olympics

**Cindy Young** 



Hillary Voss helps Izaiah Washington with his skates



Betty Cheney bestows a ribbon on Will Day

Like most athletes, they are dedicated to their sport. With fierce determination and intense concentration they practice their moves hoping to shave a few seconds off their time or to perfect a graceful dance step.

The athletes of the Greater Dayton Special Olympics Roller Skating Team take their sport very seriously. And with the help of their volunteer coaches from the Wright State University Boonshoft School of Medicine, they are living the Special Olympics Oath: "Let me win, but if I cannot win, let me be brave in the attempt."

Medical students from Wright State have been volunteering with the team for a number of years, but since 2009, they have taken on all the coaching duties for the team.

"My first year of medical school we received an email from a second-year asking for volunteers to help out with Special Olympics events," said George Salloum, M.D., a 2011 graduate of the medical school. "I immediately knew I wanted to help out due to a long history of volunteering with mentally and physically handicapped individuals."

Although he had only signed up to help at two practices, Salloum asked the coach if he could come every week. She was more than happy to have the help. Even though he didn't know how to rollerskate, Salloum became assistant coach for the team.

That summer, the coach was no longer able to continue, so she asked Salloum if he'd be able to take over the team entirely. "Even though it was the start of my second year of med school, and possibly the most difficult, I was more than willing to keep the program going," he said. "I recruited a first-year, Jason Thuener, who was strongly interested in helping out, along with some of my fellow classmates and made the entire skating program student-run."

The team of between 15 and 20 skaters, ranging in age from about nine to their mid-60s, practice most Saturday mornings at the Orbit Fun Center in Huber Heights. The athletes compete in distance races, relay races, and even skate dancing.

"It's so cool to see the people who could hardly skate when they first came, improve so much and be so proud," said Hillary Voss, a second-year medical student who volunteers with the team. "You tell them how well they're doing, and their faces just light up."



Jenny Hogle offers encouragement as Michelle Keeley completes her time trials

The coaches have gotten as much from the experience as the athletes have. "I consider the skaters my friends because they're so much fun," said Voss. "They make me laugh, just like my friends at school make me laugh. More so sometimes."

"You can be having an awful day or an awful week, and you go to Saturday morning practices, and it raises my day," said Betty Cheney, MS1. "It makes Saturdays so much easier because I laugh for an hour and a half or two hours because it's just so much fun."

The students find coaching to be a welcome break from medical school, which can be all-consuming. "Being in medical school requires you to be selfish with your time," said Voss. "But you originally go to medical school for unselfish

reasons, wanting to help people. This is a way for me to feel more normal, and not so selfish with my time. I'm doing something to benefit somebody else and not just myself."

People will often congratulate Salloum for doing so much for his team. "But what I say is they are the ones giving so much to me," he says. "In more ways than I can describe in words, I honestly feel that my involvement with Special Olympics has improved my character and personality, in ways, more than medical school has.

"I owe every ounce of confidence and optimism I have gained over the past four years to my athletes, truly." **VS** 

### The coaches for the 2010-2011 season:

George Salloum, MS4, (head coach) Jason Thuener, MS3 Shanna Duffy and Hillary Voss, MS2 Betty Cheney and Natasha Mehta, MS1

### Future Docs

#### Jason Thuener, MS3, wins national award



Third-year medical student Jason Thuener is already making his mark on medicine.

Although he's still one year away from earning his M.D., he has received national recognition from the American Medical Association (AMA) Foundation for his contributions to medicine through advocacy, community service, and education. The AMA Foundation recently awarded him its 2011 Leadership Award, making him one of only 24 medical students in the nation to receive this honor.

"As our nation continues to struggle with issues of access, disease prevention, and disparities in care, encouraging the next generation of leaders is critical," said Barney R. Maynard, M.D., AMA Foundation president. "We need individuals like these award recipients who are taking the initiative to tackle health care's most difficult challenges."

Committed to leadership and service, Thuener traveled to Jamaica on a medical mission and served as the administrative director of Student-to-Student, the community education

program run by medical students. He also volunteers with the Special Olympics and the medical school's Weekend Intervention Program.

"The award ceremony was very moving," said Thuener, who enjoyed learning from other award winners at the AMA conference in Washington, D.C. "They recognized a number of amazing physicians who have done national and international service work. Many of them were surgeons who helped in Haiti or with the homeless and underserved. I was on my surgery rotation at the time, and this was a push in that direction because I saw that I could do that too. For me, it was inspiring." VS

### In Good Company

### The healer's art Evangeline Andarsio rediscovers the awe and mystery of medicine

#### The phone call came at 2 a.m. It jarred Dr. Evangeline Andarsio awake from a sound slumber.

The husband of a pregnant woman carrying twins was in a panic. His wife's water had broken and the umbilical cord was exposed. The babies would likely die if they weren't delivered immediately. Andarsio told the man she would meet the couple at Miami Valley Hospital to perform an emergency C-Section.

But after their arrival came more crushing news. An ultrasound image of the mother indicated that one of the babies had no heart motion and appeared to be dead.

Supported by her awaiting medical team Andarsio quickly began the emergency C-Section, hoping the baby could be revived.

She remembers a tension in the room, but also a calming presence.

"I knew the feeling; some call it being in the zone," Andarsio recalled. "I know it as a moment of absolute concentration and energy being focused on being there for the patient and her infant. I call it grace." Andarsio placed her hand in the uterus on the seemingly lifeless body of the baby and discovered the child was alive. The infant came out limp, but quickly responded to stimulus and began crying.

"That whole O.R. erupted in claps, elation," Andarsio said. "Nurses were crying. It was a very powerful, powerful moment. It's what you live for as a doctor, as a nurse. We knew we had witnessed something special."

The second baby was delivered successfully and the mother woke up to the news that her twins were doing well in the nursery.

For Andarsio, a 1984 graduate of the Boonshoft School of Medicine at Wright State University, this was one of many special moments in a 27-year medical career. And those moments, which put her "in the front-row seat of life," also opened her eyes to the spiritual connections in medicine.

"You see the medical things that you do, but there's something that's so much more than that," she said. "It's trusting that in the good and the bad—there's some greater aspect of life that we're part of in the journey of that patient."



### From Cuba to Springfield,

Andarsio's journey began as a child of Cuban parents. Her father and mother left the island nation in 1957, just before communist revolutionary Fidel Castro came to power.

The family eventually landed in Springfield, Ohio, where Andarsio's father opened a medical practice. As a child, Evangeline would accompany her father on his rounds.

"I'd actually go into patients' rooms as a kid, and I'd see him talking to patients," she said. "I just really had a sense it was something I wanted to be a part of, how patients were cared for and being in such a service environment."

But even though the seed was planted in her mind, Andarsio wasn't entirely sure she wanted to pursue a medical career. She was also smitten by oceanography, and while a high school student decided to take a summer and study it at Florida State University.

However, visions of spending her career scuba diving in a paradise of sun-kissed,

blue-green waters quickly evaporated when she encountered an oceanographer bent over a microscope counting micro-organisms.

"The reality of oceanography was not Jacques Cousteau. The reality was research, being in the lab, spending the majority of your time doing lab work and research," she said. "And I was such a people-oriented person."

### From oceanography to medical school

So Andarsio went into pre-med at St. Louis University and later to medical school, selecting Wright State in order to be close to her ailing mother and because she ultimately wanted to practice in Ohio and give back to her community.

"I thought it was a perfect fit because it was a school that looked at not just the science, but looked at the whole person and was a more community-minded type of medical school," she said. "It was excellent. I felt like I learned a lot."

After graduation, Andarsio completed Miami Valley Hospital's family practice residency program and served a residency in obstetrics and gynecology because she so enjoyed delivering babies when she was on rotation.

Dr. Luis Morales has been in practice with Andarsio since 1994.

"She is very dedicated to what she does," Morales said. "She will do anything for her patients. And she's very true. What you see is what you get."

The silver-haired Andarsio is known as "Evange" to her friends and colleagues. She's become a fixture at the hospital, working up to 80 hours a week.

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"I knew the feeling; some call it being in the zone, I know it as a moment of absolute concentration and energy being focused on being there for the patient and her infant. I call it grace."

#### From the symphony to Elvis

But Andarsio also has a fun side.

She's a diehard Cincinnati Reds baseball fan, holding season tickets to weekend home games. She also hikes and plays golf.

Morales, not a great golfer by his own admission, recalled the time he and Andarsio were playing golf and Morales shot a 3 on a par 5, for an eagle. He said Andarsio practically did handstands because she was so happy for him.

"She was more excited than I was," he said.

Andarsio enjoys the symphony, but is no stranger to rock 'n' roll. An Elvis Presley clock hangs on her office wall.

"I'm a big Elvis fan," she confesses.
"When I was younger, I used to do an Elvis impersonation. It was just a fun thing. It's just fun music. I love music."

### From professional-liability activist to finding meaning in medicine

Andarsio's career was nearly derailed in 2000 when skyrocketing liability insurance premiums were rocking the medical profession.

"I was really considering could I even stay in private practice," she recalled. "And I was getting a little frustrated with all of the burdensome paperwork, the business aspect of medicine."

She ran across a book called *Kitchen Table Wisdom* by Rachel Naomi Remen, M.D., a pediatrician who worked with doctors facing burnout. Andarsio later attended

workshops at Remen's California-based Institute for the Study of Health and Illness.

"It was a transformative experience," she said. "It reclaimed my call to be a physician, with all of the headaches that are involved with medicine."

It also turned Andarsio into an activist on the professional-liability issue. She spoke at rallies in Dayton and Columbus, became a delegate for the Ohio State Medical Association and an alternate delegate for the American Medical Association. She is also a former president of the Montgomery County Medical Society.

In addition, Remen's institute sharpened Andarsio's sense of having a spiritual connection to her patients and the need to share that with fellow doctors. She found that the basic qualities of the Hippocratic Oath of medicine are profound spiritual qualities.

She founded a Finding Meaning in Medicine group based on the spiritual values of medicine such as compassion, integrity, and service. Andarsio and fellow physicians would meet and share stories as a way to work through their emotionally wrenching experiences.

"We've seen deaths of patients. Where do you go with that?" Andarsio said. "Your family can't really understand the depth of it like speaking to another physician who really walks your walk, was trained to be sleep-deprived like we've been, and is trying to make important decisions on an everyday basis while dealing with the stress and toll that can take."

Andarsio, a recipient of the 2010 WSU Outstanding Alumni Award, volunteers as a clinical assistant professor in obstetrics and gynecology at the Boonshoft School of Medicine.

She started the Wright State-sponsored Annual Medical-Spirituality Conference to explore the connections between medicine and spirituality because she believes medicine deals innately with the human spirit.

As an outgrowth of her work, Andarsio and Wright State University Boonshoft School of Medicine faculty members John Donnelly, M.D., Dean Parmelee, M.D., and Bruce Binder, M.D., Ph.D., started a Healer's Art course to reinforce the spiritual values of the Hippocratic Oath in the training of medical students. To date, the Medical-Spirituality Conference has raised more than \$82,000 in support of the Healer's Art course.

The course covers wholeness and balance as well as grief and loss.

"Then we talk about the mystery and awe of medicine, things that we can't explain in science," she said. "We end with service, that medicine is really a service-oriented career."

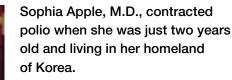
Morales said he is always amazed at how many people recognize Andarsio when she is out in public.

"I tell her she's going to run for governor and win," he said. "She knows everybody. No matter where you go, somebody's going to know her." **VS** 

# The brain of medicine

Alumna Sophia Apple's ('92) love of investigation led to directorship of breast pathology at UCLA Medical Center

Julie Thompson



The time of her illness holds no memory for Apple, but a slight limp reminds her every day that it actually happened. Still, Apple doesn't regret the effects left from the disease and is, in fact, rather thankful for them.

She was driven to become a doctor because of her disability and dreamed of one day becoming a rehabilitation physician to help those much like herself. But in the second year of medical school she was introduced to the subject of pathology, and everything changed. She was instantly drawn to this particular practice of medicine because it fulfilled her insatiable desire to learn.

"To me, pathology is the brain of medicine," Apple said. "I have a deep interest in investigative knowledge, and (in pathology) I learn new things every single day." Apple's fate would be unveiled even further when in 1992 she was accepted into the anatomical and clinical pathology residency program at UCLA. The second year of her residency was an enlightening time. It was then that she had the privilege of seeing the work of renowned breast cancer surgeon Susan Love, M.D.

"The way she was treating patients was just dynamic, and she was very charismatic," Apple recalls.

It wasn't only Love's work inside the surgical suites that left Apple speechless; it also was the scene in the waiting room. Apple recalls walking through the waiting room and seeing it filled to capacity with women holding their mammography slides in hopes of getting a meeting with Love. It was in those moments that Apple knew she wanted to devote her life's work to women's health, particularly breast pathology.

Apple spent some of her residency examining specimens removed by Love and was challenged and inspired by her work.

"I thought it would be exciting to work with someone like (Love) as a pathologist," she said. "She was kind to pathologists and sometimes demanding, but often it is necessary to be demanding to serve the patient better."

In 2002, Apple's aspirations became reality when she became the director of breast pathology at UCLA Medical Center. Now she's the one challenging students while studying cases sent to her from around the world. She even recently co-authored her first book on breast pathology and had the joy of seeing it hit the market.

Hard work and drive played a major part in placing Apple in her esteemed position, but she is continually humbled at the work she is enabled to do.

#### **Embracing opportunity**

Apple came to the United States at the age of 13 after being born in Korea and living a few years in Japan. She grew up in New York City and instantly fell in love with her new home. She received her Bachelor and Master of Science degrees from New York University before coming to Wright State.

"I define myself as an American more than anything because of the opportunities this country has provided me," she said. "If I would have stayed in Korea, I would never have become a physician."

Her ability to rise in education would not only have been limited because of her sex, but also because of her disability. Many of the facilities in her homeland do not accommodate those with disabilities, creating a barrier to someone like herself to reach higher education.

### "I wasn't defined by the condition I am in, but the dreams that I have."

"In the United States, it didn't matter who you are and what problems you have," she said. "I wasn't defined by the condition I am in, but the dreams that I have."

Apple is extremely thankful for the education she received at Wright State and is very proud that she was able to attend the school. Wright State provided an opportunity for her to receive a top-notch education at a price that didn't burden her with debt upon graduation.

"I came to the UCLA residency program thinking UCLA may have taken me by mistake. Everyone in the program was Harvard, Stanford, and Ivy League graduates, and I was the only one who came from Ohio," Apple recalls. "But I soon realized that Wright State trained me equally well to equip me to handle the pathology program. In fact, I was the only one who was accepted as a faculty at UCLA from my class."

#### **Working toward a cure**

Apple starts each day around 8 a.m. actively teaching residents while they pour over cases together and meticulously examine each patient's specimen. The pathology that she teaches to her students is so much different from when she first entered the field.

When Apple first graduated, she would provide a one-line diagnosis from her findings. Patients and their physicians would simply be told if it was cancerous or non-cancerous, for instance. Today, her work adheres to much more rigid guidelines, so if a specimen is found to be cancerous, she now has to follow another 12-step process to diagnose it in further detail.

The result is a more comprehensive report that provides better patient care, Apple said. The ability to give such detailed information means the difference between a woman being able to keep most of her breast tissue or losing it to surgery.

Apple hopes to promote more comprehensive patient care by teaching students and physicians in a book she recently co-authored with three other individuals. The book, which focuses on breast imaging, talks about the importance of correlating radiologists' findings with pathology. It is the first book of its kind to address both radiology and pathology together.

"Most of the time, the radiologist looks at a film and what they are looking at is a shadow of a lesion, whereas we look at the actual tissue," Apple said. "It is critical that we work together to make sure that what they saw is what we are seeing as well."

It is an exciting time for Apple to be in her field. Most women can live a long time after being diagnosed with breast cancer compared to just 20 years ago. Apple would love to see more funding devoted to breast cancer research, in which she plays a significant role. Meanwhile, she continues to devote most of her time and energy to the field with the confidence that she will live to see a cure for the disease.

"I am an idealistic person," she said.
"But I still have hope." VS

### In Good Company

### **Alumni Notes**

We're proud of our alumni and want to spread the word about your achievements. If you have professional news or personal updates to share—or simply want to stay in touch—please contact the Office of Advancement at som adv@wright.edu or (937) 775-2972.

Gregory Bergman, M.D., is practicing at Miami and Erie Medical Center in Minster, Ohio. He and his wife, Betty, have three children, Erin (29), Emily (24), and Anthony (21).

Frank Cebul, M.D., of Wooster, Ohio, recently completed a 16-day, 125-mile backpacking trek in the Himalayas with his son. Frank and his wife, Linda, have three children, Mark (25), Paul (24), and Cathy (21).

Janet Cunningham, M.D., currently David Roer, M.D., FAAP, was resides in Glendale, California, and practices at Glendale Adventist Medical Center. She has served as the program director of the family medicine residency program for 18 years and served as chief of staff for a large teaching hospital. In 2006, she ran the Los Angeles Marathon. She and her husband, Carlos Calderon, have four children, Annie (29), Charlie (27), Julie (24), and Tony (21).

David H. Prescott. M.D., is currently practicing full-time in a group family practice in Westerville, Ohio. He and his wife, Nancy, who is a teacher, have three children, Matthew (30), Jeffrey (26), and Brian (24).

named president and CEO of Health Specialists of Dayton Inc. Health Specialists of Davton, which has 239 employees, is part of Premier Health Partners, Dayton's largest health network. He currently resides in Centerville, Ohio, with his wife. Debbie. They have four children, James, Kathryn, Megan, and Beniamin.

presented with the Arnold Friedman Community Pediatrician Award from the Ohio Chapter of the American Academy of Pediatrics. The award recognizes the efforts and dedication of pediatricians serving their communities. He practices at Pediatric Associates of Dayton, which has offices in Kettering, Beavercreek, and Englewood, Ohio. He and his wife, Jenni, have two daughters, Stephanie and Melissa.

Cynthia Robinson Lopez, M.D.,

has a private practice at the Eastern Neurology and Neuromuscular Center in Greeneville, North Carolina, In addition to maintaining a private solo neurological practice, she home schooled her children for six years. She and her husband, Jose, have two children, Matthew (14) and Joshua (12).

Christopher Danis, M.D., has been Randell Wexler, M.D., received the Ohio State Medical Association's inaugural Physician Advocate Award. He currently practices at Gahanna Family Medicine Center and is an assistant professor of family medicine in the Ohio State Department of Family Medicine.

Patricia C. Fine Rosenstein, M.D.,

resides in Columbus, Ohio, where she practices at Nationwide Children's Hospital, Whitehall Primary Care Center. She also spends her time teaching a class of 12 second-year medical students the skills they will need to become compassionate physicians. She is married and has two teenage sons.

Julie Karnes, M.D., is currently practicing at Rocky Fork Family Practice Inc. in her hometown of Hillsboro, Ohio. as a solo practitioner. She and her husband, Kenneth, have two children, Kevin (16) and lan (5).

Judith Sigmund, M.D., graduated from United Theological Seminary. She currently practices medicine in Beverly Hospital, in Massachusetts, serves as an instructor in the Integrated Problems Course for first-vear medical students at Newton Theological School, and in her free time, enjoys figure skating, ice hockey, and drawing. She resides in Manchester-by-the-Sea, Massachusetts.

Thanya Lee, M.D., currently resides in Henderson, Nevada, with her husband, Frank, who is also a physician, and their children, Noah (3) and Jonah (2). She is currently practicing at Henderson Pediatrics and enjoys playing tennis.

Rick Wiecek, M.D., has recently joined Magruder Hospital's medical staff in Port Clinton, Ohio. He is a member of Northern Ohio Medical Specialists Healthcare and is currently a general surgeon on the staffs of both Fremont Memorial Hospital and Bellevue Hospital. He and his wife have four children and reside in Fremont, Ohio, where he enjoys spending time with family and friends, outdoor recreation, and traveling.

Heather Pfeffer Hilkowitz, M.D.,

is practicing with Hilltop Obstetrics & Gynecology Inc. in Franklin, Ohio, and also has offices in Lebanon and West Chester, Ohio. She recently started a gynecologic robotic surgery program at her hospital. In 2008, she ran a full marathon in San Francisco and has run at least five half marathons and numerous other races since that time. In her spare time she enjoys running, gardening, cooking, and, along with her husband, Fred, playing with their twins, Jakob and Mia.

Jill Waibel, M.D., currently resides in Coral Gables. Florida, with her husband and two daughters. She is a dermatologist

and the owner of the Miami Dermatology and Laser Institute. Jonathan Gerkin, M.D., completed

his residency training program at the University of North Carolina. He is now an assistant clinical professor of psychiatry at UNC and has served as clinical director of the psychiatry consult-liaison service. He currently resides in Chapel Hill, North Carolina.

Stacey Cacchio (Savage), M.D.,

is currently practicing obstetrics and gynecology with Premier Women's Health in Dublin, Ohio. She and her husband. Chad, reside in Dublin and have two daughters, Sophia (3) and Stella (1).

Jake Havman, M.D., recently finished his sports medicine fellowship at Hennepin County Medical Center after completing a family medicine residency through the University of Minnesota at North Memorial Hospital. He will begin working at Park Nicollet Health System, practicing both family and sports medicine in September. He is engaged to be married in November.

#### **In Memoriam, Teresa Traylor**



Longtime Boonshoft School of Medicine employee Teresa Traylor passed away on May 29, 2011. Traylor was a familiar face to medical students

for many years as a staff member in the Office of Student Affairs and Admissions.

"Terri was a dedicated WSU employee for decades and worked within the medical school student affairs office for more than a decade," said Gary LeRoy, M.D., associate dean for student affairs and admissions. "She had a unique balance of analytical budgeting skills, organizational insights, a delightfully raw wit, an infectious smile, and she knew how to plan and host a great event or party! We will all truly miss her."

Traylor came to work in the medical school in August 1976, when she was hired as a stenographer for the Cox Heart Institute. She worked at Cox until 1986, when she became a secretary in the school of medicine administration. She moved to the Office of Student Affairs and Admissions in 1999 and served there until shortly before her death.

"Terri made a difference on her first day in student affairs," said Paul Carlson, Ph.D., former associate dean for student affairs and admissions, retired. "She was smart and funny and her infectious laugh made everyone feel better. We came to expect that all the special events, from convocation to graduation, would go off flawlessly because we knew Terri was in charge."

A resident of Centerville, Traylor was preceded in death by her father, Joseph L. Ulrich Sr. Her survivors include her mother, June Ulrich, and her brothers, Joe, Steve, and Brian Ulrich.

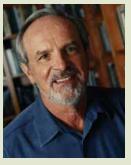




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### **2012 Medical-Spirituality Conference features** bestselling author Thomas Moore



Save the date for the fourth annual Medical-Spirituality Conference featuring bestselling author Thomas Moore, Ph.D., on April 12, 2012, at

Sinclair Community College.

Moore is the author of the bestselling book Care of the Soul and 15 other books on deepening spirituality and cultivating soul in every aspect of life. He has been a monk, a musician, a university professor, and a psychotherapist, and today he lectures widely on holistic medicine, spirituality, psychotherapy, and the arts.

Moore earned his Ph.D. in religion from Syracuse University and has won several awards for his work, including an honorary doctorate from Lesley University and the Humanitarian Award from Einstein Medical School of Yeshiva University. He writes fiction and music and often works with his wife, artist and yoga instructor Hari Kirin. Moore writes regular columns for Resurgence, Spirituality & Health, has recently published Writing in the Sand: The Spirituality of Jesus and the Soul of the Gospels, and will soon publish Care of the Soul in Medicine, and The Guru of Golf and Other Stories about the Game of Life. VS