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The Dean’s Column

Many institutions are guided by a sense of self-sufficiency. A “we-can-do-it-alone” mentality frames their approaches to all sorts of things — from closed-shop hospital staffing to lopsided inter-institutional partnering formulas. Other institutions are wired differently — imbued instead with a sense that “going-it-alone is not the best option,” and that so much more is to be gained from robust collaboration and interconnectedness. Reaching out to multiple partners, even in creative ways to titular ‘competitors,’ becomes a preferable starting point. For these institutions, Jefferson among them, ‘partnership’ is a core value proposition.

We believe that training physicians of the future demands partnerships. True, the Medical College’s historically large class size has made alignment with multiple teaching affiliates an imperative. However, this is only part of the logic that has driven Jefferson’s historical openness to partners. Multiple training sites translate into a rich training experience for each individual student. Attending physicians ensconced in diverse practice settings create a tapestry of clinical acumen for our students to draw upon. And the benefits of Jefferson’s pro-partnership ethos spillover amply into its research and clinical missions as well.

The Jefferson collaboration mindset touches a multiplicity of specialties, disciplines and sites. Several of these concentric ‘partnership spheres’ stand out.

First, three prestigious, world-class institutions — Nemours/Alfred I. duPont Hospital for Children, Wills Eye Institute and Rothman Institute — serve as Jefferson’s Pediatrics, Ophthalmology and Orthopaedics departments, respectively (please see page 6 for Nemours partnership feature story). Most medical schools would find it hard to even conceive of three core clinical departments such as these sitting outside their ‘financial control orbit’ — but not so for JMC. We simply leverage their greatness and ensure that all boats rise together. The fact that these institutions share a visceral commitment to all elements of the tripartite mission makes this easy.

Second, a web of alliance partners — Main Line Health System, Christiana Care Health Systems in Delaware, Virtua Health System in New Jersey, Albert Einstein Medical Center in Philadelphia, Reading and York Hospitals, among them — form the backbone of our clinical training programs. Approximately 50 percent of our third- and fourth-year students are in training at these affiliated institutions at any one time. There they receive the same superb education that they would have received at the Center City campuses, thanks to our dedicated faculty. We emphasize open communication with our affiliate faculty members and meet with them regularly to review curricular changes, thus ensuring that the education our students receive on any rotation is equally rich at all sites.

Third, other regional universities are part of Jefferson’s universe of academic and research partnerships. There is a robust and growing set of links between Jefferson and the University of Delaware. We have served as the medical school for the State of Delaware for many years, and UD has been a linchpin in our mission-critical bridge to Delaware, alongside Christiana Care and Nemours. In fact, our four institutions have in recent years been knitted together under the banner of the Delaware Health Sciences Alliance.

Another exciting university partnership has been cultivated with Drexel University. Most notably, Drexel’s School of Medicine was brought into Jefferson’s Kimmel Cancer Center, in the course of the recent cancer center core grant renewal by the National Cancer Institute. This represents a most significant development — a wonderful example of two medical schools in one city coming together for a common academic purpose. Now, Drexel and Jefferson scientists alike can benefit from the research core support that KCC has to offer. With outstanding leaders at the helms of their university and medical school, we are poised to explore additional collaborative opportunities with Drexel. In these resource-constrained times, institutions that were once pitted as ‘competitors’ can sometimes be better served by re-imagining themselves as partners — a new take on the coined term ‘coopetition’, or cooperative competition.

Much is said in the press about the necessity to be ‘competitive’ in all spheres of 21st century human endeavor. Our nation is asked to be more competitive when facing off against other countries. Our healthcare institutions are asked to be more competitive in matching up against other regional and national players. But paradoxically perhaps, in some instances competitiveness may actually be enhanced by cooperation and redefining whom the competition really is out there. Historically, cooperation has proved good for Jefferson and its missions. Looking to the future, it also bodes well for the greater good.

Mark L. Tykocinski, MD
Anthony F. and Gertrude M. DePalma Dean
Jefferson Medical College
We believe that training physicians of the future demands partnerships.
A newly discovered function of the enzyme PARP-1 could be the key to more effective therapeutics for advanced prostate cancer patients, a recent preclinical study by researchers at Jefferson’s Kimmel Cancer Center suggests.

The team, led by Karen Knudsen, PhD, professor in the Department of Cancer Biology, found that functions of PARP-1 not only include DNA damage repair but also androgen receptor (AR) regulation in advanced prostate cancer growth and progression. Inhibiting PARP-1 in various models, the researchers found, also suppressed AR activity, which fuels prostate growth.

Researchers believe that the dual function of PARP-1 — both AR and DNA damage function — could be leveraged for therapeutic benefit. New PARP-1 inhibitors targeting both could slow down advanced-stage prostate cancer patients and shrink tumors, the team surmises.

“We hope to capitalize on this previously unknown function in PARP-1 in prostate cancer,” Knudsen says. “Our data show that PARP-1 plays a major role in controlling AR function and that, when suppressed with inhibitors, enhanced anti-tumor effects of castration and delayed onset to castration resistance. This is the basis to support a clinical trial investigating new PARP-1 inhibitors in these patients.”

Today, PARP-1 is seen as a valuable target because of its involvement in DNA repair for cancer cells. The therapy has been successful when combined with DNA-damaging drugs because it heightens the apoptotic activity of these drugs. In other words, it helps halt tumor growth, but only by stopping DNA repair in various cancers.

Prostate cancer is dependent on AR activity for growth and survival, and is largely resistant to standard chemotherapy. AR-directed therapies are the first-line intervention for patients with advanced disease; however, recurrent tumors arise when AR is reactivated, a common occurrence in the castrate-resistant stage of the disease.

Therefore, there is a dire need to develop means to suppress the AR function in these patients. With this new role defined, newly designed PARP-1 inhibitors targeting both functions could sensitize prostate cancer, so AR-directed therapies can perform their intended function in these patients, the researchers suggest in the paper.

Almost 40 percent of men with prostate cancer progress into an advanced stage, including castrate-resistant prostate cancer, where chemotherapy and other therapies have little to no effect.

Using various in vitro and in vivo genetically defined model systems and applying an analysis known as ChIP sequencing, the researchers found that PARP-1 activity is required for AR function and is increased in castrate-resistant prostate cancer. What’s more, inhibiting PARP-1 suppressed proliferation of primary human cancer cells.

“These findings introduce a paradigm shift with regard to PARP-1 in prostate cancer,” Knudsen says, “and provide the basis for new therapies that could help a whole population of cancer patients who have little options.”

Faculty from across Jefferson participated in the study, with key co-authors including Leonard Gomella, MD, chair of the Department of Urology; Peter McCue, MD, professor in the Department of Pathology, Anatomy and Cell Biology; Jonathan Brody, PhD, assistant professor in the Department of Surgery; John Pascal, PhD, assistant professor in the Department of Biochemistry and Molecular Biology; and Adam Dicker, MD, PhD, chair of the Department of Radiation Oncology. A P01 grant to fund future clinical trials is pending and will support the work of Jefferson’s team as well as researchers from the University of Michigan and Memorial Sloan Kettering Cancer Center.
A newly discovered function of the PARP-1 enzyme is its protumorigenic effects in the androgen receptor (AR) of positive prostate cancer cells. Prostate cancer is dependent on AR activity for growth and survival and is resistant to standard chemotherapy. The illustration shows how the process of AR function and the PARP-1 enzyme work together to grow and regenerate the cancer cell.

Once in the nucleus, the PARP-1 enzyme is recruited to the site of AR function.

PARP-1 enzymatic activity is increased. The process of transcription* of the DNA occurs — a vital event in the life of the cell — and the cancer cell survives.

Research has shown that the inhibition of the PARP-1 enzyme stops the AR activity, preventing the cell from surviving the damaging effects of chemotherapy.

Androgenic hormones such as testosterone or dihydrotestosterone found in the cellular wall bind with the androgen receptor and begin translocation, or the process of the AR moving into the cell nucleus.

*Transcription (n)
The process by which messenger RNA is synthesized from a DNA template resulting in the transfer of genetic information from the DNA molecule to the messenger RNA.
Imagine you just turned 21. You have had ulcerative colitis since you were 8. It has been closely managed by your pediatricians, but now that you are an adult, they can no longer treat you. Your condition hasn’t gone away — but your medical support team has. What do you do? Where do you go for your healthcare needs?

“The department of pediatrics at Nemours/Alfred I. duPont Hospital for Children is actually the academic home for pediatrics at Jefferson,” says Jay Greenspan, MD, professor and chair, Department of Pediatrics. “At the same time, Jefferson has incredibly strong divisions like gastroenterology. So for our pediatric patients with ulcerative colitis or who are diagnosed with liver failure and have a transplant at Nemours, the obvious place for the next stage of their care is Jefferson. But that handoff doesn’t exist today — so our goal is to help these patients make a smooth transition to adult care.”

Thirty Years of Partnering Pave the Way

Located in Wilmington, Del., Nemours began partnering with Jefferson in the early 1980s. Pediatrics is a core element of medical education, but at that time, the Jefferson pediatrics department was limited. Delaware had Nemours, a stellar pediatrics hospital located just a few miles south of Philadelphia on Interstate 95, but it didn’t have a medical school. Partnering answered the needs of both organizations. Today, Jefferson serves as the medical school of Delaware, and its students train at the department of pediatrics at Nemours. “Students are very much embedded in day-to-day patient care,” says Greenspan. “The six-week pediatrics rotation is usually at Nemours, which has the largest patient base in the Jefferson system.* Students are our eyes and ears, and they present patient cases first in rounds.” In addition to training students on rotation, Nemours provides clinical experience for pediatric residents and fellows.

“The relationship is incredibly important for both sides,” says Greenspan. “For Jefferson, it allows us to train effectively with an appropriate caseload, which reinforces our reputation as a top-notch medical school, and for Nemours, it provides the opportunity to have a connection with a major academic medical center.”

Nemours and Jefferson collaborate on multidisciplinary pediatric programs for chronic or complex medical conditions, partner on important research studies and coordinate care as needed, such as facilitating the transfer of extremely ill patients from Jefferson to Nemours. “It’s a vital relationship that both Jefferson and Nemours can be proud of,” says Kevin Churchwell, MD, chief executive officer for Nemours. “The continued development of our relationship is important for pediatrics in this region and nationally. Any way you look at it — from an academic standpoint, a patient-service standpoint or a research standpoint, Nemours being the pediatric home for Jefferson creates a great environment for success.”

A significant challenge for the two partners is the 25-mile distance between campuses. “We’re working on improving communication and collaboration to help solve that obstacle,” says Churchwell. “We want to be more intentional about how we continue to support clinical program development, academic development and research development.”

“The challenge of our physical distance from each other is one that we will never be able to change,” agrees Greenspan. “But we can overcome that hurdle as people recognize how strong both partners are in this relationship and how important it is to the future of both institutions to strengthen that relationship.”

Working closely together, the two institutions provide pediatric care to the region’s children both in Wilmington and at a satellite pediatrics site in Philadelphia. “By aligning our strategies and leveraging

*Other affiliate institutions where students train include Main Line Health System, Virtua Health System, Albert Einstein Medical Center, Christiana Care Health System, Reading Hospital and York Hospital.
Jay Greenspan, MD, with a newborn at Nemours. Photo by Cynthia Brodoway, courtesy of Nemours/Alfred I. duPont Hospital for Children.
institutional strengths, we are advancing the care of children both at Nemours and on the Jefferson campus,” explains Pauline Corso, practice administrator at Nemours.

**Women and Children Service Line Launched**

In June 2012, Jefferson launched “women and children,” its sixth service line. An outcome of long-term strategy planning, it was born of a newfound focus on the future of health care for both women and children. Initiatives are currently in the development stage and include the participation of Nemours as the primary practice site for pediatrics. “All of our discussions start with ‘What’s best for the patients?’ then we work backwards to deal with logistical challenges. For example, which services should be on the Philadelphia campus, and which should be in Wilmington? Managing the geographic distance between the two campuses is a significant part of the discussion,” says William Schlaff, MD, the Paul A. and Eloise B. Bowers Professor and chair of the Department of Obstetrics and Gynecology. “And within a local context, we need to address programs like the expansion of obstetrical services and how that impacts pediatrics and neonatal intensive care.”

New perinatal programs will go beyond re-engineering obstetrics at Jefferson, given the opportunity to collaborate across the organization. “High-risk obstetrics tends to focus on caring for the fetus, and not the sick mother. So one of the initiatives we are looking at is integrating with the Department of Medicine to treat women with medical problems who are pregnant or who want to become pregnant,” says Schlaff. “We want to be the place that takes care of these patients most safely. By defining most of our initiatives as multidisciplinary — having the support of medicine, cardiology, neonatal ICUs and other specialties — we can leverage our institutional strength to provide something unique to patients that they couldn’t get somewhere else.”

**Planning for the Future**

The launch of the new women and children’s service line is just the beginning. In the future, tools like single medical records maintained across lifetimes could support continuity of care for pediatric patients entering the adult medical arena. Combined pediatric and adult centers of excellence, with partner institutions sharing space and other resources, could be positioned to provide the next generation of patient care.

Today, Nemours and Jefferson enjoy a collaborative partnership in their transplant departments, which sets the stage for other opportunities. “We see all sorts of possible connections between Nemours and Jefferson, and with a little bit of effort, we can make both institutions stronger,” says Greenspan. “For example, Nemours is a leader in pediatric orthopaedics, and Jefferson is a leader in orthopaedics, so if Jefferson has a pediatric patient with an orthopaedic problem, we should automatically refer him to Nemours rather than another children’s hospital in Philadelphia. Together, we can be number one in orthopaedics.”

Like most pediatric departments across the United States, transitioning pediatric patients to adult medical care is a critical issue for Nemours. “Children with chronic health conditions can find progressing to adult medical care very difficult after being cared for by a children’s hospital for most of their lives,” says Corso. “So our partnership with Jefferson positions us well to help make this transition smoother for patients and families.”

Learning to seamlessly transition pediatric patients to Jefferson will benefit the hospitals and patients alike. By taking advantage of connections in every specialty, from family practice to cardiac disease, adult care could be handled by a Jefferson provider. “This is important for our patients but also for Jefferson’s longevity, because that’s where many of our patients are going to come from in the future,” says Greenspan.

Children with chronic disease make up one of the most challenging patient populations to hit the triple targets of improving quality, enhancing access and reducing costs because they struggle with their conditions for a very long time. In the past, they wouldn’t have survived into adulthood. “Jefferson is uniquely positioned to manage them efficiently, and as we do that, we will improve the bottom line of our business,” says Greenspan. “If we leverage it properly, we can be the medical home for kids with complex disease throughout the world because partnerships between pediatrics and adult institutions are rare.”

In addition to partnering on pediatric training and clinical care, there is an expanding research relationship that spans basic lab work and clinical studies at both institutions. Jefferson professors, associate professors and assistant professors at all levels are working in labs, in the clinical arena and in the outpatient area of Nemours. One reason that research has been growing steadily since 2000 is that...
Jefferson investigators who want pediatrics to be part of a study’s population will reach out to Nemours.

**A Business Case to Partner**

As hospitals across the country wrestle with pressure to increase efficiency, healthcare partnerships are on the upswing, according to a March 2012 report by Moody’s Investors Service Inc. While hospitals have always looked to mergers as a way of becoming larger, some hospitals will join forces with once-unlikely partners — health insurers and for-profit companies — the report says.

Academic medical centers are not immune to these challenges, and strategic partnering is quickly becoming a key component of long-term planning.

“We don’t have the luxury of thinking in monolithic, self-focused ways, like we did 30 years ago,” says Schlaff. “Frankly, unless it’s illegal or unethical, we can entertain any discussion.”

One suggestion is to remake the relationship between center city academic medical centers and community-based teaching hospitals. “We need a hub and spoke model, where the quaternary care academic center

is the hub and strong relationships with community-based teaching hospitals go out like spokes on a wheel,” says David Paskin, MD ’64, vice dean for graduate medical education and affiliations. “That way you can have patient care delivered at the academic center or the community-based teaching hospital while maintaining access to the academic medical center if requested.

Our neuroscience network is an example of how this can work successfully. There is no sense economically with everyone having expensive technology and expertise in everything at every moment everywhere. The role of an academic center like Jefferson should be to provide those kinds of services and fortify the relationships that we have with the affiliates.”

Greenspan agrees. “In the future, complex, challenging cases that other hospitals don’t want to deal with are going to come to a major academic hospital. A large segment of that could be young adults with special healthcare needs that have weathered the storms of the children’s hospital but are now looking for medical homes in the adult arena. There could be a business case made for tracking complex patients because we do it better, we do it cheaper and we do it with better access,” he says.

“If we take care of these mothers and these children, if we do this well and build new programs, it will be good for Jefferson and will have positive financial implications. We can articulate a vision that’s unique to us,” says Schlaff. “We can do it.”
Residency Program Limits:

Can We Break the Training Bottleneck?

By Karen L. Brooks

For fourth-year medical students, “March Madness” has nothing to do with basketball. They spend the first three weeks of the month anxiously awaiting Match Day, when they will unseal the envelopes that hold their fates.

The Match process, coordinated by the National Resident Matching Program annually since 1952, involves a computer algorithm that synchronizes applicants’ preferences with those of residency program directors to fill training slots across the country.

Although March 2012 brought the highest Match rate in 30 years — 95 percent of fourth-year allopathic students received residency placements — the future of graduate medical education in the United States remains in limbo. The number of first-year residency applicants has swelled by more than 6,500 since 2001, but the number of positions available has not kept pace, increasing by a mere 3,000 over the same period.

A freeze in federal support for GME has stifled the growth of residency opportunities, worrying healthcare experts who say America no longer has the capacity to train enough physicians to meet the public’s needs. Aging baby boomers, skyrocketing rates of chronic disease and the barrage of 30 million newly insured individuals under the Affordable Care Act will apply mounting pressure to an already overstretched system.

“U.S. medical schools have been expanding enrollment and are on track to increase capacity by 30 percent by 2016,” says Darrell G. Kirch, MD, president and CEO of the Association of American Medical Colleges. “But without an increase in federal support to create more residency slots, we will not be able to avert the expected shortage of 90,000 physicians by 2020.”

Competition Up, Funding Down

In 2012, 815 fourth-year medical students failed to match, and that figure will grow in coming years, according to Thomas J. Nasca, MD ’75, CEO of the Accreditation Council for Graduate Medical Education, an organization that accredits GME programs.

“We will not have nearly enough entry-level residency positions for the combined graduating group of allopathic and osteopathic physicians by 2020 if current enrollment trends continue,” says Nasca, former dean of JMC. “The problem is not just that we won’t be able to meet the training needs of young physicians but that we won’t be able to meet the healthcare needs of the general public.”

The enrollment trends Nasca references involve schools’ responses to the AAMC’s projection of a shortage of 45,000 primary care physicians and 46,000 surgeons and specialists by 2020. Colleges and universities are steadily expanding class sizes to meet the demand for more physicians, and there are currently 18 new U.S. medical schools under development.

Regardless of the spike in enrollment, the number of federally funded residency training positions has remained frozen since the Balanced Budget Act of 1997; physicians and some legislators are lobbying for increased funding.
additional costs associated with running a training program, such as more patient testing. Recently, there have been multiple proposals to slash GME funding as Congress looks to cut federal spending; the Medicare Payment Advisory Commission and the National Commission on Fiscal Responsibility and Reform have recommended reductions as high as 50 percent.

Charles Pohl, MD ’87, senior associate dean for student affairs and career counseling at JMC, says these cuts could lead to a national crisis.

“What’s the point of graduating students with significant educational debt who can’t go on to complete their training and become physicians? This is a huge challenge for American health care, as it only increases the competition for the current residency spots without increasing the supply of practicing physicians — in the future, we’re not going to be able to meet workforce needs,” Pohl says.

As millions of people gain insurance for the first time, a shortage of primary care physicians poses the most significant workforce concern. Nasca says academic health centers will have to “get creative” if GME funding decreases.

“Institutions can expand internal medicine, pediatrics and family medicine residency programs by ceasing to pay residents in more competitive programs like dermatology, orthopaedic surgery and radiology. They could use federal funds that previously supported the competitive programs to pay for new primary care positions and could start charging residents in the more competitive programs tuition,” Nasca says.

“We could also see residencies become funded by device manufacturers or pharmaceutical companies,” he says. “And the conflict of interest issues and influence on the physician’s future practice in that case would be disastrous.”

A Push for Change

The Accreditation Council for Graduate Medical Education estimated in a 2011 report that a 50 percent reduction in Medicare GME funding would force the closure of 2,551 residency and fellowship programs and the loss of 33,023 GME positions across the country — results that would devastate young trainees as well as teaching hospitals, which depend on residents to provide patient care at a lower cost than attending physicians.
With projected physician shortages in mind, legislators have drafted bills that aim to lift the 1997 GME funding cap. The Resident Physician Shortage Reduction and Graduate Medical Education Accountability and Transparency Act, or HR 6352 — which was introduced in the House Aug. 2, 2012, and has a companion bill in the Senate — calls for Medicare to fund 15,000 new residency positions over the next five years. Another bill, HR 3667, proposes a Medicare-funded primary care residency pilot project in community-based clinics and hospitals to fill healthcare gaps in rural and other underserved communities.

Federal budget woes are likely to interfere with the system’s growth, though, and expanding GME programs is expensive. Nasca says the cost would be worth it. "Residencies aren’t just about training — they are also about patient care. Think about the fact that there are 125,000 physicians in training right now, which is one of out every six practicing physicians. Residents provide an enormous amount of care, yet they account for less than 2 percent of the Medicare patient care spending budget," he says. "Purely based on the amount of care that residents deliver, there should be more federal funding for GME.”

The Institute of Medicine, the health arm of the National Academy of Sciences, is also investigating GME issues. An 18-member committee has been appointed to analyze the entire GME system, from regulation to financing to governance. The group will release its recommendations for improving GME by spring 2014.

“I am hopeful that the IOM committee will move beyond funding to talk about workforce needs and specialty distribution and that they will emphasize the need to better structure educational programs to meet the needs of the public,” Nasca says.

Before 2012, students who failed to obtain a residency during the initial match resorted to a process called the “scramble.” On Monday of Match Week, students who learned they did not match could meet with their advisers to form a game plan for Tuesday, when a list of programs with available first-year positions was published. Tuesday at noon, they could start contacting unfulfilled programs with hopes of securing a slot.

The scramble was chaotic and highly competitive — phone and fax lines would become clogged, and positions were filled quickly and often haphazardly. To streamline the process, last year the NRMP introduced the Supplemental Offer and Acceptance Program (SOAP). Unmatched applicants now receive a list of unfilled positions on Monday and can begin applying right away, but they cannot reach out to the program directors themselves. Instead, the programs began extending offers in eight rounds that start on Wednesday. Applicants have two hours to make a decision after receiving an offer.

“The NRMP introduced SOAP to allow more time for communication between students and programs during Match Week. But like any new process, it presented some challenges," Charles Pohl, MD ’87, says. “The student affairs team was often removed from the equation — during the scramble, we were very present to advise our students about programs and career choices that matched their needs and to advocate for our stronger students to residency programs. But during SOAP, students were alone in the driver’s seat.”

Pohl says some students found that programs pressured them to commit immediately after receiving an offer regardless of the allotted two-hour window to ensure that their program filled the open position.

“Programs didn’t want to remain unmatched any longer than they had to and sometimes pushed students to rush an acceptance, which was uncomfortable and unfair. This was not an outcome intended by the NRMP, though, and over time I do expect some of these kinks with SOAP to be worked out,” he says.
In 2012, people across the United States suffered more than 1 billion common colds — and chances are, you endured at least one of them. But how did you know it was just a cold and not a case of whooping cough?
Scientists introduced a vaccine against whooping cough, or pertussis, more than 70 years ago, but recent surges show the illness is far from eradicated. Last year brought the worst outbreak the nation has seen since 1959, with more than 39,000 cases reported to the Centers for Disease Control and Prevention — more than twice the number reported in 2011. And experts know that many more cases went unrecognized.

“You really have to be looking for whooping cough to diagnose it in adults, since they often experience mild symptoms,” says Cynthia Hill, MD ’87, a pediatrician with Society Hill Pediatrics in Philadelphia. “The danger begins when these adults have contact with infants, because for them, whooping cough can be fatal.”

Whooping cough initially feels like a regular cold, but within weeks a violent and uncontrollable cough develops, lingering for up to three months. The highly contagious illness gets its name from the “whooping” sound made by those infected as they try to inhale during these bouts of coughing.

In infants lacking antibody protection, coughing spells can be so harsh that eating, sleeping and breathing can become nearly impossible. Those who are not fully immunized may develop pneumonia or seizures, and more than half of babies who contract the illness must be hospitalized. Eighteen Americans, most of them infants, died from whooping cough in 2012.

Gary A. Emmett, MD ’76, says most of these deaths could have been prevented. “Whooping cough naturally follows a three- to five-year cycle, but there are other reasons we are seeing an increase,” says Emmett, a pediatrician with Nemours and director of hospital pediatrics at Jefferson. “Unfortunately, most of those reasons involve human error or unjustified fear that can lead to very sick children.”

**Why Cases Are Climbing**

Whooping cough’s spike can be partially explained by an anti-vaccination movement that has led many parents to decline immunizations for their children. In recent years, widespread statements in the media — including some from high-profile celebrities — have linked vaccines to terrible health problems, causing panic among the general public.

Although these claims have no scientific basis, more and more families are forgoing vaccinations and contributing to outbreaks in the process. All U.S. states allow religious and medical exemptions for children’s vaccinations, but half of the whooping cough cases in 2012 came from six states that offer a personal or philosophical exemption, according to the CDC.

“People believe what they see on television and the Internet over what they hear at the doctor’s office. So many people think you get sick from vaccines, but that’s not true,” Emmett says. “Those refusing vaccines have not seen a lot of disease or had personal experience with it, so they don’t realize how important vaccinations are. As we see more acute illness, they could get a rude awakening.”

And even people who support vaccination can fall victim to whooping cough. A reformulated vaccine has proved weaker than its predecessor, and immunity wanes over time. In 1997, the original “whole cell” DTwP vaccine — which protected against diphtheria, tetanus and pertussis and contained entire, dead pertussis bacteria — was phased out because of concerns about side effects like high fevers and sore limbs. But the new vaccine, the acellular DTaP given to infants and children up to age 7, gradually loses effectiveness, dropping to about 70 percent protection within five years.

“The medical community made a conscious decision to reduce side effects but ended up inadvertently changing the long-term immunogenicity of the vaccine. It’s still a great vaccine — it just doesn’t give you permanent immunity, and you need boosters throughout life,” Emmett says.

But a booster called Tdap for teens and adults also weakens after a few years, and many adults don’t even realize they need it. The CDC reports that just 8 percent of American adults have received the Tdap booster since it became available in 2006. “Many adult patients don’t know to ask about Tdap, and clinicians who treat adults aren’t always used to giving vaccines like pediatricians are,” Emmett says. “Vaccinating is an expensive process that requires a lot of staff time. Not all adult practitioners have those resources, and if they aren’t giving shots frequently, it’s hard to keep them around. They expire, and that costs money.”

**Stopping the Spread**

Even though the newer vaccine doesn’t last as long as the old one, experts say vaccination is still the best way to avoid whooping cough. Vaccination reduces
“Our biggest push as pediatricians is to immunize anyone who will be taking care of an infant: parents, grandparents, siblings, babysitters. When I educate my patients and their families about the importance of immunizations, they are more likely to comply.”

– Cynthia Hill, MD ’87
Jefferson Faculty

Robert L. Brent, MD, PhD:
An International Authority on Congenital Disorders

Bob Brent can’t explain what drew him to the field of medicine. Nobody in his family had attended college, let alone medical school, and he didn’t have any physician role models as a child. But even in his youth, he somehow sensed his calling.

“When I was 8, I decided that I was going to be a physician who didn’t charge his patients,” he says. “My mother didn’t think that sounded very practical.”

Brent wasn’t deterred and went on to fulfill his dream. One of the world’s leading experts in radiation biology, developmental biology, embryology and teratology, he has been providing free reproductive risk assessments to women and families for more than 50 years.

Raised in Rochester, N.Y., Brent didn’t hesitate before pursuing his ambitions. Knowing he would be drafted into World War II after high school, he took his advanced exams early and was accepted to the University of Rochester at age 15. As a student, he held a job with the Manhattan Project (later the Atomic Energy Commission), researching the effects of radiation on developing embryos. This work provided the foundation for his entire career.

The war ended before the date of Brent’s U.S. Army induction notice, so he completed his bachelor’s degree at just 18. “Getting into medical school as a teenager wasn’t easy. I applied to 86 schools over the next three years,” says Brent, who continued his radiation research the whole time.

Finally accepted to the University of Rochester School of Medicine and Dentistry at 21, Brent received his MD in 1953 and a PhD in embryology and radiation biology in 1955 and did a pediatric residency at Massachusetts General Hospital. He then served two years in the Army, heading the radiation biology section at the Walter Reed Army Institute of Research, where he was involved in monitoring radiation exposure resulting from nuclear bomb testing programs.

After his military service, Brent joined Jefferson’s faculty and advanced to become chair of pediatrics, a role he held for three decades. He is now the Distinguished Louis and Bess Stein Professor of Pediatrics, Radiology and Pathology and head of the Clinical and Environmental Teratology Laboratory at the Alfred I. duPont Hospital for Children in Wilmington, Del. — a major Jefferson partner. The author of nearly 500 scientific publications, including six books and four movies, Brent has won many awards for his achievements, such as Castle-Connolly Physician of the Year; the Alfred I. duPont Award for Excellence in Children’s Health Care; and election to the Institute of Medicine of the National Academies.

Although he rarely works in the clinic these days, Brent continues to counsel patients as an expert editor for the online community of the Health Physics Society, a group of specialists in radiation safety. As leader of the site’s pregnancy section, he conducts about 2,000 free consultations per year for pregnant women and families who have been exposed to potentially toxic agents. He recently surpassed his 25,000th assessment.

Brent’s charitable activities extend beyond free health counseling. He and his wife of 63 years, Lillian, have established four scholarships at Jefferson and in 2011 created the Robert and Lillian Brent Alumni Giving Incentive Fund to inspire generosity among JMC graduates. The Brents made a donation that places funds in each new graduate’s account for five years, resulting in 100 percent giving participation for that class. They hope that after five years, alumni will be motivated to maintain this status on their own.

“The gratification and joy of sustaining an institution of education is a very rewarding part of life,” Brent says.

And while Brent might not have encountered many physician role models growing up, he has certainly served as one for subsequent generations. His sons, David and Larry, are JMC alumni, and his daughter, Deborah, graduated from the Jefferson School of Nursing. This past fall, his granddaughter, Elyssa, began her first year at JMC.

Brent recently shared reflections on his profession.

Q: What brought you to Jefferson back in 1957?
A: After I was discharged from the Army, I received four job offers, but Jefferson’s was exceptional. The University offered me four laboratories, my own animal facility and the rank of associate professor, even though I was only 29 years old. Also, the chairman of obstetrics and gynecology, Dr. Thaddeus Montgomery, interviewed me and was a real class act, just such
an impressive and ethical person. I thought that if this was the kind of faculty that Jefferson employed, it had to be a good place.

Q: You’ve enjoyed a lengthy career. What advice would you give students going into medicine today?
A: Don’t be discouraged by the pressures and responsibilities that come with being a physician — they are all worthwhile. No other profession will give you more satisfaction or allow you to make a greater contribution to the world. You will constantly be stimulated by new discoveries, so take every opportunity to learn. I am 85 years old and still learn at least five things every day.

Q: What inspired you to establish scholarship funds at Jefferson?
A: I believe that education should be free. Tuition these days is just too high for a young person to handle. There is nothing more important than education, and my family wants to make medical education attainable.

Q: What is your proudest professional accomplishment?
A: First, the growth I oversaw in Jefferson’s Department of Pediatrics. When I became acting chairman, I had three faculty members and a very small budget. By the time I became emeritus chairman 30 years later, our main pediatrics site had moved to the Nemours/duPont Hospital for Children with 140 faculty members and a budget of about $125 million. The Nemours programs are now among the largest in the country and a great source of pride for me.

Second, my research. I couldn’t counsel my patients without having completed so much basic research in reproductive biology, embryology and toxicology. People I have met or taught over the years might someday forget me, but my research publications will live on forever. The medical literature chronicling all of the new knowledge I uncovered — that is my legacy.

— Karen L. Brooks
**Bar-Ad Named Residency Program Director**

Voichita Bar-Ad, MD, associate professor in the Department of Radiation Oncology, has been named director of the department’s residency program. Bar-Ad primarily treats head and neck and gastrointestinal cancer cases and maintains a research focus on treatment-related side effects and toxicities, patient quality of life and symptom management.

**Waldman Receives NCI Grant**

Scott Waldman, MD, PhD, chairman of the Department of Pharmacology and Experimental Therapeutics, has been awarded a prestigious “Provocative Questions” grant from the National Cancer Institute as part of its program to tackle “important but not obvious” questions related to cancer. Out of 700 applicants nationwide, just 57 recipients were chosen.

Waldman’s four-year, $1.2 million grant will support his studies into the relationship between obesity and cancer. He is specifically looking at a hormone receptor known as guanylyl cyclase C (GcC), found mostly in the intestinal tract, and how its levels affect cancer risk.

**Knudsen Named Journal Editor**

Karen E. Knudsen, PhD, professor of cancer biology, urology and radiation oncology and deputy director for basic science the Kimmel Cancer Center, has been named editor-in-chief of *Molecular Cancer Research*, one of the American Association for Cancer Research’s seven major peer-reviewed journals. *Molecular Cancer Research* publishes original, novel and well-designed studies on the molecular and cellular aspects of cancer biology. Knudsen began her term in January 2013.

**Loss of Protein Linked to Critical Limb Ischemia**

Restoring diminished levels of a protein shown to prevent and reverse heart failure damage could also help patients with critical limb ischemia (CLI), researchers from Jefferson’s Center for Translational Medicine suggest in a preclinical study published online Oct. 9, 2012, in *Circulation Research*. Low levels of the protein S100A1 have been linked to congestive heart failure and high blood pressure and now appear to be associated with critical lower limb ischemia, a condition found in type 2 diabetic patients where blood flow to legs is cut off, often resulting in amputation. Past studies have shown that returning the protein to normal levels or above prevented and/or reversed congestive heart failure in large animal models with gene therapy. Given these new findings, the researchers posit that S100A1 could also be a potential therapeutic target in CLI to promote revascularization.

The team was led by lead author Patrick Most, MD, adjunct assistant professor of medicine, and senior author Karsten Peppel, PhD, associate professor in the Center for Translational Medicine.

**New Function of ATP Discovered**

Jefferson researchers have unraveled a new function of adenosine triphosphate, or ATP, beyond its passive roles as an energy source and a phosphate donor for phosphorylation reactions. Their studies revealed a new model of kinase regulation, whereby ATP modulates an “on-off-switch” mechanism in Akt — a serine/threonine-specific protein kinase that plays a key role in...
multiple cellular processes such as glucose metabolism, apoptosis, cell proliferation, transcription and cell migration — by inducing conformational changes in the Akt kinase domain. The three members of the Akt protein kinase family play key roles in multiple cellular processes, including glucose metabolism; cell survival and proliferation; and cell migration.

A molecular switch that affects the activation state of specific Akt isoforms may be exploited to modulate Akt signal strength in malignant diseases, as well as in diabetes and diseases of the heart and the central nervous system.

The data was reported in the *Proceedings of the National Academy of Sciences* and was the subject of a perspective in *Science Signaling* in its May 2012 issue.

**Study Connects Empathy and Outcomes**

Patients of doctors who are more empathic have better outcomes and fewer complications, according to an empirical study by a team of Jefferson and Italian researchers who evaluated relationships between physician empathy and clinical outcomes among diabetic patients and physicians in Italy.

The study, published in the September 2012 issue of *Academic Medicine*, serves as a follow-up to a smaller Jefferson study published in the same journal in March 2011.

“This new, large-scale research study has confirmed that empathic physician-patient relationships is an important factor in positive outcomes,” said Mohammadreza Hojat, PhD, research professor in the Department of Psychiatry and Human Behavior and director of the Jefferson Longitudinal Study of Medical Education in the Center for Research in Medical Education and Health Care at JMC. “Compared to our initial study, it has a much larger number of patients and physicians, a different tangible clinical outcome, hospital admission for acute metabolic complications and a cross-cultural feature that will allow for generalization of the findings in different cultures and different health care systems.”

**Contrast-Enhanced Ultrasound Better Detects Prostate Cancer**

Led by principal investigator and Prostate Diagnostic Center Co-director Ethan Halpern, MD, researchers have found that contrast-enhanced ultrasound detects high-grade prostate cancer better than conventional methods, making it a more appropriate approach for screening clinically important cancers and monitoring low-risk ones with fewer biopsies. Their phase III study was published online in September 2012 in the *Journal of Urology*.

Findings from the randomized, double-blind trial revealed the technique, which uses microbubbles to measure change in blood flow, found almost three times as many higher-grade cancers using half as many needle biopsies compared to systematic biopsy methods.

**Protein Could Help Guide Prostate Cancer Treatment**

Men who had high levels of the activated Stat5 protein in their prostate cancer after a radical prostatectomy were more likely to have a recurrence or die from the disease compared to men who had little to no presence of the growth protein, according to a study published in *Human Pathology* by researchers from the Kimmel Cancer Center at Jefferson. The findings suggest that Stat5 — which, when activated, signals cancer cells to grow and survive — could be an ideal biomarker to help guide patients and physicians for future treatment.

The team, led by Marja Nevalainen, MD, PhD, associate professor of cancer biology, medical oncology and urology, examined prostate cancer biopsies and tumor tissues obtained from 562 men who underwent a radical prostatectomy, comparing Stat5 levels with outcome. They also looked at prostate tumor tissue in 106 patients who were under a “watchful waiting” or active surveillance treatment plan and had no neoadjuvant therapy.

**Tumor Tracking Technique May Improve Lung Cancer Patient Outcomes**

Medical physicists at Jefferson and the Kimmel Cancer Center have discovered a tumor-tracking technique that delivers higher levels of radiation to moving tumors while sparing healthy tissue in lung cancer patients.

Researchers have been searching for ways to better track tumors — which are in constant motion because of breathing — in order to up the dosage during radiation therapy without increasing side effects. They have now shown that their real-time tracking technique can achieve such tasks. The results of the study, which was led by Ivan Buzurovic, PhD, a medical physics resident and researcher in the Department
of Radiation Oncology, and Yan Yu, PhD, vice chair and director of medical physics, were published in the November 2012 issue of Medical Physics.

Brazilian Mediums Shed Light on Brain Activity During Trance State

A study by researchers at Jefferson and the University of Sao Paulo in Brazil analyzed the cerebral blood flow of Brazilian mediums during the practice of psychography, described as a form of writing whereby a deceased person or spirit is believed to write through the medium’s hand, and revealed decreased brain activity during mediumistic dissociative state that generated complex written content. The mediums were injected with a radioactive tracer to capture their brain activity during normal writing and during the practice of psychography, which involves the subject entering a trance-like state. The subjects were scanned using single photon emission computed tomography to highlight the areas of the brain that are active and inactive during the practice.

“This first-ever neuroscientific evaluation of mediumistic trance states reveals some exciting data to improve our understanding of the mind and its relationship with the brain. These findings deserve further investigation both in terms of replication and explanatory hypotheses,” says Andrew Newberg, MD, director of research at the Jefferson-Myrna Brind Center of Integrative Medicine. The findings appeared in the Nov. 16, 2012, edition of the online journal PLOS ONE.

Older Age Marker Needed for Papillary Thyroid Cancer Prognosis

Jefferson researchers have shown that age 45 is no longer a useful outcome predictor in the staging of papillary thyroid cancer patients. Since the 1970s, physicians have used age at diagnosis to determine the severity of these cancers. Papillary thyroid cancers — those including affected lymph nodes — diagnosed before age 45 are designated as Stage 1, while the same cancers with lymph node involvement presenting after age 45 years are Stage 3.

The team analyzed 45,390 thyroid cancer cases diagnosed between 2001 and 2007 and reviewed five-year survival rates. The most significant drop was seen in those aged 65 to 74 years, though prognosis was still good at 92 percent.

“With time, we have developed new therapies and surgical techniques, leading to better survival rates,” says Jeffrey L. Miller, MD, co-director of the Thyroid Center at Jefferson. “We feel that age 45 is no longer an appropriate age designation to influence papillary thyroid cancer prognosis.”

NIH Grant to Fund Skin Disease Study

Researchers at the Jefferson Institute of Molecular Medicine have been awarded almost $384,000 by the National Institutes of Health to investigate the mechanisms involved in the development of a serious and sometimes fatal disease, nephrogenic systemic fibrosis, which is a rare skin disorder linked to gadolinium-based contrast agents used in magnetic resonance (MRI and MRA) studies.

NIH Grant to Fund Skin Disease Study

The team, led by Sergio A. Jimenez, MD, co-director of the Jefferson Institute of Molecular Medicine and director of the Jefferson Scleroderma Center, aims to gain a better understanding of the molecular mechanisms behind the initiation of the disorder in order to develop possible new treatments. They will investigate the role of specialized cells known as macrophages and their cell surface receptors known as Toll-like receptors in gadolinium-based contrast agent induced skin fibrosis.

Combining Therapies Cuts Angioplasty, Stenting Complications

Jefferson researchers have shown that combining distal protection devices with prophylactic use of the drug nicardipine is more effective at preventing life-threatening complications following a percutaneous coronary intervention such as angioplasty or stenting on patients who have undergone previous bypass surgery than distal protection devices alone.

Angioplasty or stenting on bypass vessels is associated with a high risk of complications due to distal embolization, the dislodging of plaque and clots downstream, impairing blood flow and leaving patients at risk for a heart attack. Distal protection devices are commonly used to prevent blockages by catching the dislodged plaque and clot in a basket-like device, allowing blood to filter through the bypassed artery. Still, complications remain in up to 10 percent of patients. Preliminary studies have suggested that prophylactic doses of nicardipine, a common intracoronary vasodilator, can
also help in this regard, but never have the two techniques been combined.

“Through the combined power of these two therapies, we have a new approach that is improving outcomes for this high risk subset of patients,” says Michael P. Savage, MD, director of Jefferson’s Cardiac Catheterization Lab.

### Deviating from Radiation Protocols Increases Risks

Ensuring that radiation therapy protocols are followed not only decreases deviations but can improve overall survival in cancer patients, Jefferson researchers suggested in a first-of-its kind study presented at the American Society for Radiation Oncology 54th Annual Meeting in October 2012.

Faculty from the Department of Radiation Oncology analyzed radiation therapy protocols, quality assurance measures and patient outcomes in eight large clinical trials to determine if deviations were associated with inferior clinical outcomes. Examples of radiation therapy deviation include inadequate targeting of high-risk lymph node regions or incorrect dose calculation. Their findings revealed that deviating from protocols was associated with up to a 75 percent increased risk of treatment failure and mortality. This suggests that implementing quality assurance measures to ensure protocols are followed could improve outcomes for cancer patients, according to the authors.

### Aspirin as Successful as Warfarin in Preventing Clots

If you’ve had joint replacement surgery, you’ve likely been given warfarin, a common blood thinner and clot-preventer, prior to surgery. Researchers from the Rothman Institute at Jefferson have shown aspirin to be just as effective in preventing clots — specifically pulmonary emboli, life-threatening blood clots that can develop in the arteries of the lungs following joint replacement surgery. Their research was recognized as one of the best poster presentations at the recent American Association of Hip and Knee Surgeons meeting in Dallas.

“While warfarin is successful in the prophylactic prevention of clots it can also lead to increased bleeding, infections and hospital readmissions,” says Javad Parvizi, MD, director of research at the Rothman Institute and lead author of the study.

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10th Annual Jefferson Awards Gala

Jefferson hosted its sold-out 10th Annual Awards Gala Oct. 25 at the Hyatt at the Bellevue in Philadelphia. Every year, this event honors two members of the Jefferson community whose leadership has profoundly affected the field of medicine.

Honorees for 2012 were William Keane, MD, the Herbert Kean Professor and Chair of the Department of Otolaryngology-Head and Neck Surgery and medical director of Jefferson University Physicians; and Robert Nicoletti, a local business leader and philanthropist whose family has established two endowed professorships at Jefferson.

The 2012 gala raised more than $700,000 to support two initiatives selected by the awardees. Gifts honoring Keane will benefit an education legacy fund supporting otolaryngology resident training programs, and gifts honoring Nicoletti will provide scholarship funding for Jefferson Medical College students in need of financial assistance.

The Jefferson community is grateful to all who helped to make this year’s gala a resounding success.

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Pictured (from left) are TJU President Richard Gozon; gala honoree William Keane, MD, and his wife, Louise; gala honoree Robert Nicoletti; and TJUH President David McQuaid, FACHE.
Cynthia L. Sears, MD ’77: A Life’s Work Inspired by Service Overseas

In spring 1979, Cynthia Sears found herself in a Cambodian refugee camp triaging 35 vomiting, dehydrated children. The patients, all from a camp orphanage, had been fed contaminated food, and with the help of two nurses, it was up to Sears to care for them — not to mention the dozens of other refugees with infectious diseases occupying her residency group’s make-shift emergency ward. “It was experiences like that that made me realize I wanted to pursue a career in infectious diseases over GI medicine,” she says.

Growing up in Pottstown, Pa., Sears thought she would follow in the footsteps of her mother and become a nurse. But her father encouraged her to dream bigger and become a doctor. So as a junior in high school, Sears applied for the five-year joint undergraduate and medical degree program through Penn State and JMC. She interviewed for the program her senior year, was accepted, and went off to Happy Valley and eventually, Philadelphia.

But toward the end of her internal medicine residency and fellowship at Cornell Medical Center (now Weill), Sears remained undecided if she should apply for a fellowship in infectious disease or GI medicine. Around the same time, her residency group was given the opportunity by the International Rescue Committee to run an emergency room in a Cambodian refugee camp. So she went to the camp in Thailand. “I saw an astonishing array of infectious disease, including diarrheal illnesses and childhood illnesses,” says Sears. “Because of the policies of Pol Pot, there was limited immunity to common childhood illnesses built up in the population. When the refugees were crowded in the camp, there were outbreaks of childhood diseases and more — measles, mumps, rubella, chicken pox, meningitis and cholera. I was in the middle of it.”

She came back to the United States and completed one year of the internal medicine fellowship at Cornell, then applied for infectious disease fellowships. While waiting for acceptance, Sears went to Memorial Sloan-Kettering to study with Donald Armstrong, MD, her attending at the refugee camp and head of infectious diseases at Sloan-Kettering. At that point, it was 1981, and HIV had hit New York City. “That was an amazing year,” she recalls. “I had a remarkable experience watching this epidemic unfold and manifest as opportunistic infections.”

After her year at Sloan-Kettering, Sears completed her infectious disease fellowship at the University of Virginia. By then, she had decided to train to become an enteric pathogen expert — a process she says is ongoing.

Having worked at Johns Hopkins University School of Medicine for the past 25 years, Sears, a professor of medicine in infectious diseases and gastroenterology, is now studying a bacterium called enterotoxigenic Bacteroides fragilis (ETBF). She was originally examining how toxins made by bacteria might contribute to diarrheal disease. But in working with ETBF, her team learned that it linked to an oncologic pathway. They tested the hypothesis that ETBF may induce tumors in the colon, and those experiments proved positive. “In research you end up with a few moments, a few experiments, over the course of your career that really make you rock back on your heels and think more deeply,” she says. This was one of them.

Now her team is working to understand the mechanisms that cause bacteria to be oncogenic in the colon and how the microbiome contributes to the pathogenesis of colon cancer — a task that will be her life’s work. “I’ve considered taking on a leadership position, but I think I am going to work away at this question of how bacteria may influence colon cancer,” she says. “I hope we can come up with a new approach to prevent a disease that is extremely common.”

In her spare time, Sears is involved with Moveable Feast, a Baltimore-based nonprofit with a mission to provide nutritious food at no cost to low-income individuals with life-threatening diseases, particularly HIV and cancer. Besides sitting on the board of directors of Moveable Feast and volunteering to deliver food, Sears participates in fierce Chicks Rock, a bike team that completes an annual 140-mile ride called Ride for the Feast to raise funds for Moveable Feast.

But whether she’s working with Moveable Feast or in the lab at Hopkins, Sears remembers the refugee camp and the career clarity it provided her. “There are times when I realize I am really enjoying my job because aspects remind me of the refugee camp,” she says. “Those five months made a big impact.”

— Elizabeth Seasholtz
ClassNotes

'47
Joseph Corson is a surgical pathologist currently focusing on malignant mesothelioma. He is a professor of pathology at Harvard Medical School and lives in Lexington, Mass.

William Harrer, Courtney Malcarney, Joseph Sokolowski and Stephen Vasso joined together to organize a private celebration during their 50th reunion weekend in October. Malcarney and his wife, Kay, provided their home; Vasso and his wife, Edna, provided the wine; and Harrer and Sokolowski's wives, Carol and Maureen, provided the food. The classmates would like to express thanks to their peers for their participation in reunion weekend and to Phillip Marone, MD '57, MS '07, and Toni Agnes of the alumni relations office at JMC and everyone at the Jefferson Foundation for their help with this year’s reunion events.

'53
Thurman Gillespy Jr. is founder and senior partner of the Orthopaedic Clinic of Daytona Beach, Fl., a nine-physician orthopaedic group that includes his two sons, Albert, MD '82, and Mark, MD '86, as well as Gilbert Martin, MD '54. Gillespy stopped performing surgeries four years ago but still sees office patients and energizing career.” Pizzutillo lives in Wynnewood, Pa.

JeffersonMedicalCollegeAlumniBulletin

'57
Vincent Cuddy retired from practicing surgery in 1996. He is a volunteer faculty member in the University of Pittsburgh’s Department of Surgery and Anatomy. Cuddy has 18 grandchildren and lives in Beaver Falls, Pa.

'61
Jerry Harrell recently reconnected with Ed Downing, MD '64, at a medical mission seminar and reminisced about work in Mombasa, Kenya. Downing and his wife, Lois, are dear friends of Harrell, who lives in St. Simons Island, Ga.

'62
Harry Candela retired in 1994 after 30 years with the U.S. Navy. He now volunteers with the Nemours program “Healthy Habits for Life,” a childhood obesity prevention initiative, in Orlando, Fla. Candela lives in Maitland, Fla.

'64
John P. Whitecar writes that he is proud of his two daughters, Linnane R. Batzel, MD '99, and Colleen J. Whitecar, MD '06, both of whom graduated from Jefferson. Whitecar continues to enjoy practicing hematology and oncology in Columbus, Miss.

'67
Anthony Padula is a medical director for Independence Blue Cross in Philadelphia, where he lives.

'70
Peter Pizzutillo has served as director of orthopaedic surgery and associate surgeon-in-chief at St. Christopher’s Hospital for Children for nearly two decades. He reports that “the clinical care, educational and research activities and mentoring of young associates at this institution have provided me with a stimulating and energizing career.” Pizzutillo lives in Wynnewood, Pa.

'72
Robert McKay splits his time between practicing anesthesiology and holistic medicine. He is currently studying acupuncture, myofascial release, therapeutic yoga and reiki. McKay lives in Bristol, Tenn.

'75
Joseph J. Korey is still actively practicing obstetrics and gynecology. He and his wife, Linda, live in Reading, Pa., and celebrated their 40th anniversary in June 2012.

'76
David W. Willis recently returned to the east coast after 30 years in Oregon, having been recruited to the Health Resources and Services Administration’s Maternal Child Health Bureau as director of the Division of Home Visiting and Early Childhood Systems. This work involves building early childhood investments to address the social determinants of health, education and social capacities of our most vulnerable children. Willis now lives in Bethesda, Md.

'78
Alexander Mamourian was recently promoted to full professor of radiology at the University of Pennsylvania. He sends his thanks to the Jefferson faculty who supported him during his time at JMC and his best wishes to all of his classmates. Mamourian lives in Wayne, Pa.

'80
Angela E. Lin reports that she enjoys working as a medical geneticist at Massachusetts General Hospital and recently was promoted to clinical professor at Harvard Medical School. Lin has applied her previous training in pediatric cardiology to her current work in cardiovascular genetics and coordinates the Turner Syndrome Clinic and Hereditary Hemorrhagic Telangiectasia Center. Lin writes that her highlights from 2012 included receiving the service award from the National Birth Defects Prevention Network; seeing classmate Marianne T. Ritchie, MD '80, named the new JMC Alumni Association president; and unexpectedly running into classmate John C. Wain, MD '80, now director of thoracic surgical research and the surgical director of MGH’s lung transplant program, in an elevator at MGH. After 15 years working in the same institution, Lin and Wain promised to do lunch very soon.

'81
Stuart Gordon is the division head for adult hip and knee reconstruction at Cooper University Hospital in Camden, N.J. He lives in Haverford, Pa., with his wife, Marianne Ritchie, MD '80, president of the JMC Alumni Association.

'82
Judd Moul is director of the Duke Prostate Center and the James H. Semans, MD, Professor of Surgery at the Duke University School of Medicine. He and his wife, Ellen, live in Chapel Hill, N.C.
Alumni Association
President’s Message

Let’s talk technology. OK, so I don’t have a smart phone. No problem. My “dumb phone” keeps me connected just fine, and it’s still more convenient than a pay phone.

What’s that? You’re aghast that my 8-year-old Toyota has no GPS? That’s OK. Stopping for directions at gas stations leads to making new friends.

As of Oct. 1, 2012, federal regulations mandate that all medical records be electronic; we no longer have a choice about documentation. On the bright side, now we can tap into universal records with notes from colleagues, lab and X-ray results and medication lists. Even better, we can access the information from the hospital, office or home. Another plus is not worrying about misplaced charts in a big office. And no more jokes about doctors’ illegible handwriting. The printed word is definitely easier on the eye.

But beware — the new world of Electronic Medical Records isn’t perfect.

1. Make use of free-texting. The drop-down selections do not always offer the options I might want to include when I’m completing a history and physical. An effective clinician captures the specific nuances in each patient’s history and physical. A fill-in-the-blank template doesn’t always lend itself to communicating the exact details that distinguish the belly pain of a virus from appendicitis, or irritable bowel from inflammatory bowel.

2. Look the patient in the eye. Students learn the value of appreciating the Hippocratic Facies — the expression on the patient’s face. How can we win a patient’s trust if our back is turned while we type on the computer keyboard?

3. Do not depend on spell check. Read your notes before you click “finalize.” On many occasions, I have dictated a letter to a referring doctor. When reviewing the typed draft, I have found the words “Unfortunately, the biopsies were negative for cancer,” when in fact I had recorded the words “Fortunately, the biopsies were negative for cancer.” This error would go undetected if I depended on spell check.

4. Read notes critically. The document isn’t more official or valid just because it’s printed. Remember, it’s not hard to “click and send” an error, such as ordering milligrams of a drug rather than micrograms.

5. Reference “Copied and Pasted and Misdiagnosed (or Cloned Notes and Blind Alleys),” a very informative article written by our Jefferson colleague, Dr. Susan Rattner, that suggests EMR makes it easy to cut and paste other clinicians’ notes. “The process of composing a note encourages critical thinking; copying a note does not.” Students and residents need to start from scratch, take their own histories to learn the process, but also because the history is dynamic. Symptoms and signs often change between the time of the initial exam and later exams. A patient may remember additional vital information when repeating the history the third or fourth time.

6. Pick up the phone and call your colleague. Direct communication with another physician allows for more accurate exchange of details and more importantly, the chance to brainstorm ideas. Such collaboration leads to safer, more efficient and cost-effective patient care.

So no need to say goodbye to the Flintstones and leave the stone-age town of Bedrock for Orbit City. The Jetsons don’t live in nirvana, either. Live somewhere in between by embracing the advantages of technology but sticking to the basics of a conscientious, methodical, thinking clinician.

Marianne T. Ritchie, MD ’80
President, JMC Alumni Association
In Memoriam

1944
Irvin Gerson, 93, of Bala Cynwyd, Pa., died Oct. 18, 2012. Gerson was a family practitioner, neurological researcher and faculty member at JMC. He is survived by his wife, Rosalie; five children; and eight grandchildren.

1944
Seymour Krevsky, 92, of Bloomfield, Ill., died July 11, 2012. Krevsky practiced pediatric medicine for 50 years. He is survived by his wife, Margery, and a stepson, Joseph Stearns.

1945
Luther F. Corley Jr., 87, died in September 2011. Corley practiced family medicine in Boaz, Ala., for more than 45 years after serving in the military in Korea and was instrumental in the formation of the Boaz-Albertville Hospital. He is survived by his wife, Clare; two sons, Trey, MD ’79, and Tom, MD ’80; and three grandchildren.

1946
Richard Murphy Whittington, died Nov. 20, 2012, in Palm Coast, Fla. After graduating from JMC and serving in the U.S. Army in Korea and at Walter Reed Army Hospital, Whittington joined the Veterans Administration in 1952. He held a number of positions within VA including chief of staff at the Cleveland VA Hospital and associate chief medical director at VA Headquarters in Washington. He became chief of staff at the Gainesville VA Medical Center in 1976 and served as associate chief of staff for geriatrics and extended care from 1992 to 1999. After 52 years of government service, Whittington continued serving the VA in his retirement as a consultant in geriatric medicine to the VA network director in Florida. He was preceded in death by his first wife, Eileen; his second wife, Joan; and his son, David. He is survived by his sister, one son, three daughters, two stepchildren, five grandchildren and three step-grandchildren.

1947
H. William Schmidt, 91, of King of Prussia, Pa., died Aug. 21, 2012. Schmidt, a pathologist, was retired from Montgomery Hospital in Norristown, Pa. He is survived by his wife, Marina; his son, Mark; and two grandchildren.

1948
Bernard B. Borkowski, 86, of New Hope, Pa., died July 19, 2012. He completed his internship in general surgery and residency in general, vascular and thoracic surgery at Jefferson and remained on the medical staff until 1973. He retired in 1993 as an emergency department physician at Grandview Hospital in Sellersville, Pa. Borkowski is survived by his wife, Barbara, a 1958 Jefferson diploma nursing graduate; and two daughters.

1949
Bertram H. Frohman, 84, of Yardley, Pa., died Aug. 10, 2012. After serving in the Korean War, Frohman established a family medicine practice in Trenton, N.J., and later in Hamilton, N.J., serving the community for over 50 years. He is survived by his wife, Mary; and seven stepchildren.

1950
Shlomo Friedman, 67, of New Orleans, La., died Oct. 22, 2012. Seltzer was a neurologist who researched Alzheimer’s disease and taught at the medical schools of Harvard, Boston University and Tulane, which he left after Hurricane Katrina. He returned to Harvard and the Boston VA before becoming director of the Program in Cognitive and Behavioral Neurology at Barrow Neurological Institute in Phoenix. He served on the Scientific Advisory Board of the Arizona Alzheimer’s Consortium. Seltzer is survived by his wife, Natalie; his mother, Sylvia; a sister, Marjorie Stanek, MD, who is on the faculty at Jefferson; his children, Daniel, Jennifer, Peter and Nathan; and two grandchildren.

1951
William Joseph Thomas, 79, of Hyannis, Mass., died Oct. 4, 2012. After graduating from JMC, Thomas joined the U.S. Navy and established a distinguished career in adult psychiatry. He worked at several hospitals in addition to maintaining a large private practice in Norwood and Dover, Mass., for more than 20 years. A lifelong lover of music, Thomas was an accomplished pianist. He is survived by his wife, Grace A. Murphy; and four children.

1955
Albert A. Dubin, 85, of Gilbert, Ariz., died Aug. 25, 2012. Dubin is survived by his daughter, Lisa; his son, Michael; eight grandchildren; and one great-grandchild.

1969
Benjamin P. Seltzer, 67, of New Orleans, La., died Oct. 22, 2012. Seltzer was a neurologist who researched Alzheimer’s disease and taught at the medical schools of Harvard, Boston University and Tulane, which he left after Hurricane Katrina. He returned to Harvard and the Boston VA before becoming director of the Program in Cognitive and Behavioral Neurology at Barrow Neurological Institute in Phoenix. He served on the Scientific Advisory Board of the Arizona Alzheimer’s Consortium. Seltzer is survived by his wife, Natalie; his mother, Sylvia; a sister, Marjorie Stanek, MD, who is on the faculty at Jefferson; his children, Daniel, Jennifer, Peter and Nathan; and two grandchildren.

Post-Graduate

1971
Shlomo Friedman, of Dallas, died Feb. 12, 2012, of natural causes. Friedman was a pediatrics resident at Jefferson from 1968 to 1971 and a Cardeza Research Fellow from 1971 to 1972.
In fall 2011, JMC launched a private online networking community strictly for alumni. The site not only publishes Jefferson news and event information but also enables grads and post-grads to create personal profiles and connect with peers and classmates for both social and professional reasons. You control your profile and decide how much information to share, from contact information to photographs to LinkedIn profiles.

The community is constantly changing and expanding. Visit connect.jefferson.edu/medicalcollege to join and explore.

By THE Numbers

JMC Alumni Online Community

JMC graduates listed in the community’s online directory: 19,344

Class year with the greatest community participation: 1977

Categories of events posted on the site: 3 (JMC alumni events, CME and national meetings)

Top five countries sending the most visitors to the site:
1. United States
2. Canada
3. India
4. United Kingdom
5. Germany

Number to call if you need your ID number or have trouble registering: 215-955-4354

Your constituent ID, needed for log-in: Unique to you!
Find your ID number on the mailing label on the back cover of this magazine.

Non-alumni who can view your profile: 0 (Your secrets are safe with us!)
Now it’s easier than ever to stay connected!

FOLLOW THESE EASY STEPS TO GET STARTED.

1. Visit connect.jefferson.edu and select the MEDICALCOLLEGE community in the top bar.
2. Click “register now” in the upper right-hand corner.
3. Fill in your name to search for your record.
4. Enter your constituent ID. Not sure what it is? It’s right above your name in the mailing label on this page.

Your ID# 500374190
Mr. and Mrs. Thomas Jefferson
PO Box 123
Philadelphia, PA 19107-0123

5. Take a few minutes to set up your profile.
6. Simply click “login” every time you visit in the future.

Explore tools and resources at connect.jefferson.edu/medicalcollege today!