



Jefferson

# Hospitalists, first do no harm. Pay attention to each patient's needs.

Paula L. Stillman, MD, MBA, found out firsthand how beneficial the care of a hospitalist—a doctor who only takes care of patients in the hospital—can be when her husband recently was admitted to Jefferson University Hospital.

Stillman, director of Community Engagement of the Institute of Emerging Health Professions at Jefferson University, says that the hospitalist shortened her husband's stay by several days by paying keen attention to his care and follow-up.

"Our hospitalist was an incredibly smart, compassionate, caring physician. She immediately called our primary care physician, spoke to him about my husband, and kept him informed throughout the hospitalization. She also visited us several times a day in the hospital and greatly facilitated the workup. She was able to get complex imaging studies done on the weekend and immediately spoke to the radiologist, and was able to see the results as soon as the procedure was completed," Stillman says.

The hospitalist also communicated with the family and involved them in the decision-making process, and helped schedule followup appointments to ensure a continuum of care.

"She even contacted us when we got home to make sure that my husband was OK," says Stillman, adding, "the care that my husband received should serve as a template for all hospital care."

# Dr. Stephen Spinelli examines the reality of disappearing occupations due to technology

According to Stephen Spinelli, Jr., PhD, co-founder of Jiffy Lube and chancellor of Thomas Jefferson University, technology is transforming virtually every job in every industry, and nearly one million Americans will see their occupations vanish entirely by 2026.

The good news is that for all the jobs that will be lost to automation in the next 13 years, hundreds of millions of new jobs will be created in response to emerging economies, aging populations, and technology development. The challenge is to prepare students for these trends and to anticipate others that will define work in the future.

In order to survive, those entering the workforce must adapt and develop new skills to meet the demands of the marketplace. This puts a heavy burden on the nation's colleges and universities, which must lead the way in preparing students for professions of the future.

"Is our higher education system ready for the challenge? The answer is no—at least not yet," Spinelli says. "Higher education must focus squarely on developing the skills students need to succeed in a rapidly evolving job market."

Spinelli says that increasing automation is a "clarion call for a revolution in higher education."

"If we do our job as educators, we will prepare students to work in symphony with technology, rather than in competition with it. If we only meet the current needs of society, we will leave our students behind."

### Jeff Helps Community with Opioid Crisis

With drug overdoses continuing to rise across the country, the federal government is stepping in to coordinate a three-pronged initiative with a special focus on South Jersey. The new approach includes working with law enforcement to crack down on drug traffickers, teaching doctors and pharmacists how they can help stop prescription drug abuse, and reaching out to community organizations to educate the public.

The New Jersey Division of the U.S. Drug Enforcement Administration (DEA) announced its "360 Strategy" recently, saying it's designed to combat the heroin and opioid epidemic across the southern part of the state, which includes Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, and Salem counties.

According to Valerie Nickerson, special agent in charge of the DEA's New Jersey Division, approximately 64,000 Americans died from a drug overdose in 2016.

James Baird, MD, assistant medical director for the Emergency Department at Jefferson Health in Washington Township, Gloucester County, sees up close how families are torn apart by addiction.



"The substances that are on the street, what we're seeing in our emergency departments, just at an alarming rate with no end in sight right now—we have in my small-community emergency department anywhere from two overdoses a day up to 12," Baird says. "We've given Narcan. We've given it to a 9-year-old, we've given it to a 91-year-old. We are pronouncing people dead on a daily basis—and we are giving Narcan to the same person over and over again."

From witnessing these tragedies firsthand, Baird said he is looking forward to working with the DEA to better provide resources to people in need and help prevent others from being affected.

#### Jeff Doctor has DESIGNs on Change

Bon Ku, MD, MPP, combines the best of his two worlds medicine and design. He is an emergency medicine physician and the founder and director of JeffDESIGN, a program at Jefferson's Sidney Kimmel Medical College (SKMC) that trains med students in design thinking.

Ku, associate professor at SKMC and assistant dean for Health and Design, leads students in thinking "outside the box" to create devices and architectural areas that can solve some of healthcare's biggest challenges. He says he loves his job: one minute he could be working a clinical shift in the Emergency Department, the next he could be running a workshop for medical students on how to redesign spaces to make patients more comfortable and doctors more effective.

JeffDESIGN is the first design thinking program in a medical school. One challenge the doctor believes needs to be addressed is gender bias in healthcare.

"During a shift in the Emergency Department, I started asking female physicians about how often their patients mistake them for being nurses," he says. Unfortunately, it happens a lot—and not just in the United States, but around the world. His remedy? "We need more women in leadership positions in healthcare... and more support from male colleagues." He also sees the need to use his design talents to create healthy spaces for working mothers in healthcare.

"I have been working with architects to promote the inclusion of lactation rooms as best practice for designing healthy spaces... How can we be promoting health if we can't provide decent and convenient lactation rooms for doctors and nurses with newborn children?"

### Dr. AI – Machines Could Change Hospital Care

The future of healthcare is becoming futuristic, as providers increasingly look to computerized data and tools to improve outcomes. For example, many hospitals are looking into electronic health record (EHR) data and machine learning, which is the process of having computers teach themselves things to predict which inpatients are going to develop severe sepsis or septic shock. Computers can compare large numbers of patients' outcomes with their vital signs, test results, and other information, and then develop systems for predicting outcomes in advance. While the technology can be very helpful, there are challenges to overcome to insure that the models are safe and being used to the maximum efficiency, according to Rebecca Jaffe, MD, ACP Member, a clinical assistant professor and hospitalist at Thomas Jefferson University in Philadelphia.

"Recognizing patterns and changes within that data, you can lose the trend just from trying to incorporate the massive amount of data points. If we offload some of that into the system itself, then providers can focus on activating the right interventions at the right time and have computers do the things that they do well," she explains.

Dr. Jaffe was chosen to lead the implementation of a predictive model at Jefferson, in partnership with data scientists and analysts.



Bon Ku, MD, MPP, founder and director of JeffDESIGN

#### Jeff Doc Heads South to Solve Cancer Mystery

Two Alabama regions have one disconcerting thing in common: a statistically high occurrence rate of a rare eye cancer.

Thomas Jefferson University Hospital's Marlana Orloff, MD, has treated some of the patients and conducted research in Huntersville, and was recently contacted by residents of Auburn to ask if she could look into their cases.

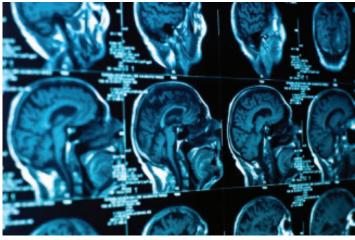
References to the cancer cases in Huntersville and Auburn were included in an abstract Orloff presented at a 2015 meeting of the American Society of Clinical Oncology. The conclusions in that report, which was prepared by Orloff and colleagues at Wills Eye Hospital and Thomas Jefferson University, outlined the need for further investigation into the cases.

In Auburn, Orloff and colleagues will be looking to establish a

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working relationship with patients and medical professionals to potentially lay the groundwork for another coordinated study. At this point, she has determined there are as many as nine cases involving people who were students at Auburn between 1989 and 1993; her team will be gathering information to determine the next step in researching the situation.



Tests for Cognitive Function in Senior Workers

Recently, 71-year-old President Donald Trump underwent a routine physical—complete with a cognitive function test (at his request).

Trump is just one example of a senior citizen continuing to work during what was once considered the retirement years, sparking the issue of how to assess competency in older workers. Many health systems now have programs, for example, that test whether older doctors are having physical or cognitive problems that impair their ability to do their jobs.

Cognitive functioning becomes more of an issue with advancing age. According to the Alzheimer's Association, three percent of people aged 65 to 74 have Alzheimer's compared with 17 percent of those 75 to 84. Brain changes and mild symptoms begin years before people are diagnosed with dementia.

The Affordable Care Act authorized Medicare to cover an "annual wellness visit" that includes the "detection of any cognitive impairment." To that end, the patient and family, if present, would be asked if the patient has experienced any changes in thinking ability or memory. Changes in the ability to manage money, medications, and driving are often early signs of cognitive trouble.

Andrew Newberg, MD, an internal and nuclear medicine doctor who is director of research at Jefferson Health's Marcus Institute of Integrative Health, conducts daylong evaluations—most are for executives—in the Executive Great Life and Advanced Brain Health programs. Most of the participants in the brain program are 55 and up, and worried about changes or a family history. Some opt for advanced brain imaging that shows whether there are signs of amyloid, a protein associated with Alzheimer's disease, or other structural abnormalities in their brains.

#### Jefferson Joins Eagles to Fly for a Good Cause

They've won the Super Bowl, now they're planning on a win against autism.

The Philadelphia Eagles are partnering with Thomas Jefferson University and Jefferson Health, Children's Hospital of Pennsylvania (CHOP), and Drexel University for the Eagles Autism Challenge on May 19, 2018. The goal of the citywide event is to raise money for innovative research and programs to help unlock the mystery of autism. Events include 15-, 30-, and 50-mile bike rides, and a 5K run or walk. All routes will begin and end at Lincoln Financial Field.

Team captains, Stephen K. Klasko, MD, MBA, president and CEO of Thomas Jefferson University and Jefferson Health, and Jamie J. Maguire, executive chairman of Philadelphia Insurance Companies, have invited all employees, students, faculty, alumni, and friends at Abington, Northeast, Center City, East Falls, and Kennedy campuses to participate in this new initiative. Those who join Team Jefferson will inspire and engage the community alongside Jefferson's leaders in autism research for much-needed support that will make a lasting impact on the field.

The Eagles Autism Challenge is matching the first \$25,000 in online donations.

To register for the event, go to Jefferson.edu/ EaglesAutismChallenge

#### Jefferson Student Wins Top Award for Invention

Living with congenital adrenal hyperplasia, a potentially lifethreatening condition that affects the adrenal glands, inspired MS in industrial design student Julia Anthony to develop "SOLUtion." The invention earned her first place in the annual Top Ram Business Model Competition at Jefferson (Philadelphia University + Thomas Jefferson University).

"I'm really excited," she said just after winning the Matt Glass Award for Entrepreneurship. "I've had this idea for a long time."

Her dual-chamber auto-injector offers those with adrenal insufficiency disorders a fast and effective way to dispense medication in emergency situations. Anthony said she plans to use the \$1,000 prize to help with prototyping.

The Top Ram competition in December consisted of seven teams of students from East Falls and Center City campuses pitching their ideas to a panel of judges. A brief Q&A followed each seven-minute presentation. Finalists were scored on concept, research, storytelling, business model feasibility, and business model design and innovation.

Second place and the \$500 prize went to Circalux, a team that featured three Sidney Kimmel Medical College students who are developing portable, user-responsive, circadian-friendly nightlights designed to give caregivers sleep-friendly light.

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Other innovations included a wearable platform for respiratory disease management, a company that provides underdeveloped communities with sustainable and affordable housing, and a firm that uses recyclables to create art and puzzles for children and seniors.



#### Interior Design Alumna Wins Emmy Award for Veep Production Design

Shortly after earning her degree in interior design from Jefferson (Philadelphia University + Thomas Jefferson University), Kimberly Wannop '99 headed to Hollywood to start her career.

"I've always been into TV and film sets," she says. "I don't think I believed in college that I would ever be able to make a career out of it, but the interest was definitely there."

That interest recently earned her an Emmy Award as set decorator for the hit HBO comedy series *Veep*.

"I was just so happy and excited to have won," says Wannop, who had been nominated twice before for the TV industry's top honor. Upon arriving in Hollywood, she found work in art departments, then moved into TV movies and series. From 2006–11, she worked on the Fox series *Bones*, and her credits include work on other top shows such as *Parks and Recreation*, *Love*, and *The Good Place*.

"I definitely credit my interior design education with helping and influencing my career," Wannop says. "I learned to draft and use CAD, which helped me get art department jobs early on, and even now I use space planning, fabric, and textiles almost every day. I am very grateful to my parents who provided this education for me and very proud that Philadelphia University educated me to succeed in this career."

"We are incredibly proud of Kim," says Lauren Baumbach,

associate professor and director of Jefferson's Interior Design and Interior Architecture programs. "She was an adventurous design student with a lot of spunk. As a young designer, she took off for Los Angeles with dreams of being a set designer, and that risk paid off big. We celebrate her talent and incredible accomplishments."

For the full story, please visit Jefferson.edu/Ambassadors



# Announcements

#### Jefferson Health and Magee Rehabilitation Combine, Strengthening Patients' Path to Independence

Jefferson Health and Magee Rehabilitation are embarking on the next chapter of their decades-long clinical partnership by combining their organizations. The integration will enable two of Philadelphia's nationally ranked hospitals to provide an even higher level of care to patients regaining independence from spinal cord injury, stroke, brain injury, amputation, multiple sclerosis, or orthopedic injuries.

Under terms of the combination, Magee, the 13th-ranked rehabilitation hospital in the country according to U.S. News & World Report, would apply its leading-edge, best-practice approach to rehabilitative medicine across the Jefferson Health enterprise, which now includes 14 hospitals across two states. In turn, Jefferson Health, including Thomas Jefferson University Hospitals, the 16th-ranked hospital in the country, will extend certain services to Magee patients, such as JeffConnect telemedicine, enabling to consult with their physicians through the convenience of a laptop or other mobile device.

The merger, effective January 2018, marks Jefferson Health's fourth in as many years, growing from a local three-hospital system in Philadelphia to a regional 14-hospital network in two states. Now, Jefferson Health provides care to patients at 14 hospitals and more than 50 outpatient locations. Operating revenue has grown from approximately \$1 billion to \$5 billion.

Jefferson's strong partnership with Magee began in 1978, when the organizations formed the Regional Spinal Cord Injury Center of the Delaware Valley, and through this affiliation, became designated as one of the nation's 14 Model Spinal Cord Injury Centers by the National Institute on Disability, Independent Living, and Rehabilitation Research. This year marks the 40th consecutive year of the partnership, which includes research and collaboration in the areas of biomedical services, pharmacy, respiratory therapy, radiology interpretations, residency programs, and other student education.

#### Jefferson Receives \$2.8 Million Grant from the Bristol-Myers Squibb Foundation

The Bristol-Myers Squibb Foundation has awarded Thomas Jefferson University and Jefferson Health \$2.8 million to bring lung cancer screening, care, and prevention programs to underserved communities in Philadelphia.

Jefferson, home to the NCI-designated Sidney Kimmel Cancer Center and the Jane and Leonard Korman Respiratory Institute, will use the gift to launch a citywide campaign in low-income, high-risk communities to increase knowledge about lung cancer, promote prevention, reduce the stigma of the disease, introduce screening programs, and improve outcomes. Philadelphia ranks the highest in poverty among the nation's 10 largest U.S. cities, and also has the highest rate of smoking—the leading cause of lung cancer among adults.

Despite new national lung cancer screening guidelines, rates remain very low, with less than four percent of eligible people getting screened. This problem is compounded in impoverished areas of Philadelphia where the average family income can be well below the federal poverty level. Lack of effective communication about the purpose and process of screening, screening services, and treatment results in higher mortality rates for cancer patients in the city. Jefferson aims to collaborate with clinical and community partners to remove barriers and provide lung cancer programs to the city's uninsured and underinsured residents.

These efforts will be led by the Korman Respiratory Institute, a collaboration between Jefferson Health and National Jewish Health; the combined services of the Sidney Kimmel Cancer Center and its Center for Health Decisions; and the Center for Urban Health, a signature program of the Jefferson Department of Family and Community Medicine.

#### Thomas Jefferson University to Establish the First Education and Training Center for Biologics Manufacturing in North America in Partnership with Global Leader NIBRT

New biologic therapies are rapidly gaining momentum by turning debilitating illnesses like rheumatoid arthritis, diabetes, and cancer into manageable illnesses, and even creating cures.

And yet because of the complex manufacturing process, and lengthier regulatory timeline compared to traditional drugs, biologics remain challenging to produce in large quantities with only a handful of centers throughout the world dedicated to training people to synthesize these life-saving drugs.

Jefferson (Philadelphia University + Thomas Jefferson University) intends to close that gap by creating the Jefferson Institute for Bioprocessing (JIB), the first—and only—such institute in North America, which will be established in collaboration with the National Institute for Bioprocessing Research and Training (NIBRT).

Leaders from Jefferson and NIBRT, which is based in Dublin, Ireland, announced this unprecedented global partnership at the Biopharma Ambition Conference at Dublin Castle, with Irish Minister for Health Simon Harris, TD, in attendance.

NIBRT is internationally recognized for its excellence in bioprocessing research and training and serves about 4,000 industry professionals worldwide from its headquarters in Dublin. JIB will leverage the renowned NIBRT curriculum to provide a premier U.S.-based option with a significant potential market

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that includes 900-plus pharmaceutical-related companies in the Northeast United States.

When fully operational, the Jefferson Institute for Bioprocessing is expected to serve 2,500 people annually, including working with the pharmaceutical companies, providing workforce training through community college partnerships and bioprocessing certifications through regional university partnerships. Importantly, the Institute will facilitate enrollment of 70 additional Jefferson students in bioprocessing engineering, from undergraduate to PhD.

Biologic pharmaceuticals are manufactured in a living system such as a microorganism, plant, or animal cell, often using the latest genetic manipulation technology. The development of biologic pharmaceuticals is growing rapidly, and represents a major shift in the industry from traditional chemical synthesis techniques. More than 40 percent of therapeutics currently in research and development are biopharmaceuticals.

Jefferson expects the first training opportunities for industry professionals to be offered in mid-2019.

## Jefferson and Einstein Healthcare Network Sign Letter of Intent to Merge

On March 28, 2018, leadership from Jefferson and Einstein Healthcare Network announced the signing of a nonbinding letter of intent to merge, potentially bringing together two historically linked academic medical centers whose shared vision is to improve the lives of patients and their communities.

The move also sets the stage for a clinical academic enterprise that would boast the largest residency program in the Greater Philadelphia region, making Jefferson (Philadelphia University + Thomas Jefferson University) uniquely positioned to educate the brightest healthcare professionals of tomorrow with a multihospital clinical rotation unlike any other. The merger would also bring together nationally recognized MossRehab and Magee Rehabilitation, two of *U.S. News & World Report*'s topranked rehabilitation hospitals.

"At the new Jefferson our mission is to improve lives. To bring Einstein, with its history, quality and values, into the family brings us closer to that goal," said Stephen K. Klasko, MD, MBA, president and chief executive officer of Thomas Jefferson University and Jefferson Health. "As two academic medical centers that have embraced a no-limits approach to a very different future, we are a perfect match."

Under the leadership of President and Chief Executive Officer Barry R. Freedman, Einstein has maintained a deep and abiding commitment to the communities it has served for more than 150 years, while also expanding into new areas, including Elkins Park, the construction of Einstein Medical Center Montgomery in East Norriton in 2012, and the development of a dozen outpatient care centers throughout the region. "This merger would enable Einstein to continue living its mission of providing high-quality care with humanity, humility and honor, and also provide opportunities for growth and expansion currently out of the organization's reach," Freedman said. "Both Jefferson and Einstein are aligned in our belief that together we can redefine how patient care is delivered, how health professionals are educated, how research discoveries are brought to patients, and how the health of our communities can be improved."

The proposed merger marks a new chapter for the decades-long academic relationship between Jefferson and Einstein. Einstein Medical Center Philadelphia is the largest independent academic medical center in the region, and the Network trains more than 3,500 health professional students and 400 residents in more than 30 programs each year.

Jefferson and Einstein will enter a period of due diligence during which time each of the organizations will take a closer look at various aspects of the other. If both organizations decide to move forward, they will sign a definitive agreement, and seek all necessary regulatory approvals.