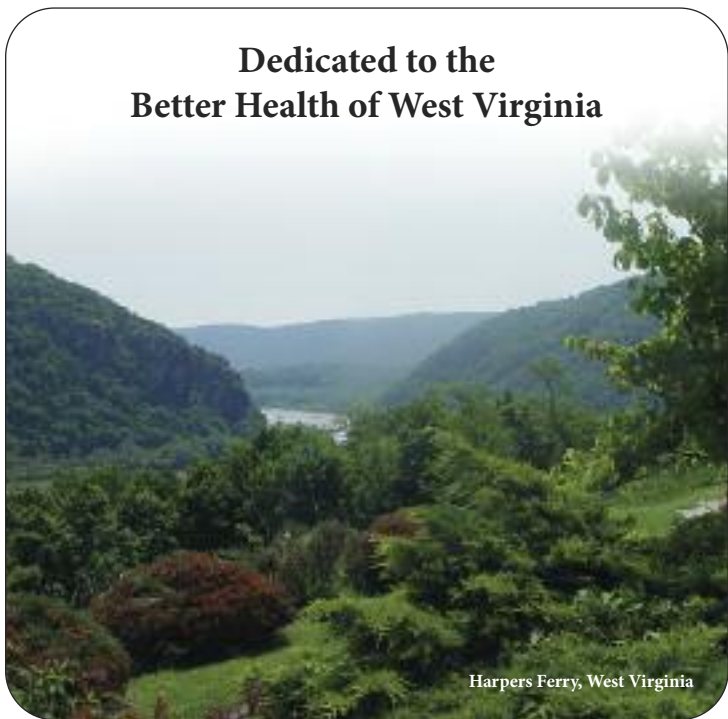


**Dedicated to the
Better Health of West Virginia**



Harpers Ferry, West Virginia



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Annual Report 2008-09

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Mission Statement

To improve the health of West Virginians by educating health professionals; providing state of the art patient care; conducting basic science, clinical, and rural public health research; and by offering a variety of supportive health services to our residents.



INTRODUCTION

Messages from the Dean and Vice President



Introduction

Message from the Dean

The West Virginia University School of Medicine is a complex organization, with hundreds of talented people and locations across our state. But we have a simple mission. We are dedicated to the health of the people of West Virginia.

That dedication is true to all our missions. We educate the doctors and other health professionals our people need. We care for tens of thousands of patients and provide specialized services not just here in Morgantown but all over the state. We conduct research that is aimed specifically at health issues important to the people of West Virginia.

Together, these efforts result in positive changes that have an impact on the lives of everyone in our state. The highlights noted in this report begin to tell the story of our work.

The School of Medicine is also a force for economic development. Our health system is one of West Virginia's largest employers, and our research growth is fueling Morgantown's continued economic stability and growth in the midst of a worldwide financial setback.



We do not know what the future holds. But, we do know that we must remain true to our mission and dedicated to the people we serve.

James Brick, M.D.
Interim Dean

Message from the Vice President

It has been my privilege and honor, and a most humbling experience, to serve as interim vice president of the Robert C. Byrd Health Sciences Center. As my time in that role draws to a close, I am particularly proud of the achievements of the faculty, students, and alumni of the School of Medicine, many of which are noted in this report.

In an era of contentious debate over the future of healthcare, the School of Medicine continues to provide West Virginia with steady, conscientious, and dedicated service. Our role will remain the same, no matter the outcome of the discussions of healthcare reform.

We're rooted in the traditions of scholarship, discovery, education, and medicine. We're inspired by the land grant mission of West Virginia University and energized by the Mountaineer spirit that binds all of WVU's students and alumni. And we are proud to be a part of our state's present, past, and future—and to be a vital link between the people of this state and the medical, academic, and scientific communities that span the planet.



Fred R. Butcher, Ph.D.

Interim Vice President for Health Sciences



PATIENT CARE

Features • Highlights • Noteworthy





Features

WVU Rolls Out Electronic Medical Records Project

Thick paper-filled medical charts are a thing of the past at WVU Hospitals and University Health Associates' clinics with the launching of Merlin, the electronic medical records project. The three-year, \$90 million project applies to all WVU Healthcare sites.

All healthcare provider orders and patient information is automated in an online system that can be accessed by about 5,000 licensed users, including approximately 500 doctors. The system contains built-in privacy guarantees, with only individuals involved in the patient's treatment allowed to access the electronic record.

“The system is ‘paper light’ in many areas and paperless in others, such as lab test results,” explained Claudia Wilhelm, R.N., director of clinical operations for the project. “Doctors and other healthcare providers got lab test results on a piece of paper. On January 17 providers got test results in their Merlin InBaskets.”

As a result of Merlin:

- medical professionals can better manage and track a patient's healthcare delivery
- everyone involved in providing patient care can view or access the same information at the same time, including immediate updates
- pharmacists can manage and prioritize as they fill prescriptions and advise patients on possible drug interactions
- confusing and repetitive information entry is reduced
- delays caused by missing or incomplete records are eliminated
- medical teams can easily reach out to patients when records show they are in need of follow-up care or annual testing

Merlin was installed in a variety of clinical satellite locations including Buckhannon, Charles Town, Clarksburg, Gilbert, Harper's Ferry, Kingwood, Martinsburg, Moorefield, Morgantown, Reedsville, and Wheeling.

Implementation of additional Merlin features continued with the launch of myWVUChart, which allows patients to access their records electronically as well.

OBGYN Uses Latest Minimally Invasive Techniques to Help Patients

The Department of Obstetrics and Gynecology (OBGYN) at WVU provides outstanding care to women from West Virginia and surrounding states. In addition to having the state's largest Maternal Fetal Medicine program and Neonatal Intensive Care Unit, OBGYN is employing the use of the latest technology in the treatment of their patients.

The department uses the da Vinci® Surgical System for complex hysterectomies and other gynecologic procedures. Through tiny, 1-2 cm incisions, surgeons using the da Vinci® System can operate with greater precision and control, minimizing the pain and risk associated with large incisions while increasing the likelihood of a fast recovery and excellent clinical outcomes.

“We are the tertiary care center for the state, so when serious gynecological problems requiring surgery occur, patients come here,” Michael Vernon, Ph.D., professor and OBGYN department chair, said. “When we have a high-risk pregnancy that requires cutting-edge intervention they come here, and we have a very high success rate for what we do.”

At WVU, the pregnancy success rate is above the national average.

“I’m very proud of our group. Sometimes we forget that West Virginia is a small state, yet we have a facility that is as good as any,” Dr. Vernon said. “It takes expertise to do this and for us to have that much expertise here is an outstanding advantage for us in order to deliver the best OBGYN care for the women of our state.”



da Vinci® Surgical System

Features

A New Level of Cancer Care

A week-long series of events held in April showcased the renovation and expansion of WVU's Mary Babb Randolph Cancer Center.



Patients from the Cancer Center participated in the ribbon-cutting ceremony and spoke passionately about the care they received at WVU.

The Cancer Center's \$22 million expansion more than doubled its clinical space, adding more treatment chairs in the infusion center, and tripling the amount of space devoted to pharmacy. Now at about 87,000 square feet, the Cancer Center has room for an additional 10,000 square feet of expansion in the atrium.

Designed around the concept of multidisciplinary medical teams delivering patient care, the new space also includes a children's waiting room, a wig boutique, and a patient library with Internet access.

"The Cancer Center at WVU is, of course, a center for research and the latest in treatments," said Scot Remick, M.D., director of the Cancer Center. "Such new-frontier regimens include umbilical-cord blood transplants for treatment of leukemia and clinical trials involving drugs that, without damaging the body's healthy cells, target only the tumor itself."

J. Michael Ruppert, M.D., Ph.D., was installed as the first Jo and Ben Statler Eminent Scholar and Chair in Breast Cancer Research at the Cancer Center. The chair was made possible by a \$5 million gift to the Cancer Center from the Statlers in 2007. The gift was part of an overall gift of \$25 million from the Statlers to WVU that included underwriting for Bonnie's Bus, a mobile digital mammography unit that travels throughout the state, bringing digital mammography to women who live in counties where breast cancer mortality rates are high while access to radiology services may be limited.



Highlights

WVU Hospitals opened its **Sleep Evaluation Center** in August, with expanded space in a new location. The expansion, which doubles patient capacity from four to eight beds, accommodates increased patient demand. The 4,500-square foot facility will be able to handle more than 2,000 patients a year, including children.

A more homelike atmosphere along with new, leading-edge sleep-evaluation equipment, are some of the upgrades the new Center offers. The staff conducting the sleep studies are registered polysomnographers, or professional sleep technicians. They offer testing and treatment services for all kinds of sleep disorders including insomnia, sleep apnea, and restless leg syndrome.



Maggie Jaynes, M.D., professor, Department of Neurology, has been using telemedicine to help connect patients in the Eastern Panhandle and in the Charleston area without an increase in travel time to see the patient.

Mountaineer Doctor Television provides telehealth and education services at 42 member sites in West Virginia and one in Maryland.

In a rural state like West Virginia, patients are sometimes required to travel long distances to see a specialist. Telemedicine consultations allow patients to remain in their own community while receiving specialized care. It allows the patient to maintain the relationship with the primary care provider, who coordinates care with the specialist.

Telemedicine consultations use state-of-the-art video conferencing equipment originally developed for the military and NASA. The specialist is on one end of a video monitor, while the patient and nurse or other healthcare provider are at their home clinic. The healthcare provider takes the patient's vitals and gets a history and preliminary information. Labs and other tests are often ordered prior to the consultation by the primary care physician. During the telemedicine consultation, the healthcare provider conducts the exam with direction from the specialist. The high-resolution cameras and equipment allow the specialist to zoom in to see whatever he or she needs to see.

Telemedicine clinics are currently available in pediatric neurology, psychiatry, rheumatology, nephrology, endocrinology, and dermatology.



Claudette Brooks, M.D., assistant professor, Department of Neurology, is a spokeswoman for the American Stroke Association and works to aid Americans in knowing the risks of improper treatment of strokes. According to a recent study, most people who have strokes don't act quickly enough to get the clot-dissolving treatment that can limit brain damage.

Dr. Brooks said she instructs people who believe they are having a stroke to get to the emergency room immediately, preferably by calling 911. If they do insist on driving to the hospital, they should call ahead, so that they receive immediate treatment upon arrival.

While diagnosis and treatment might be quicker at a hospital with a stroke center, the important thing, Dr. Brooks said, is to get to any hospital right away.

Doctors at WVU were the first in the state to use a new device to help patients suffering heart attacks, congestive heart failure, or undergoing angioplasty. The **Impella Left Ventricular Assist Device** enables the heart to rest during difficult procedures and to heal and recover during episodes of congestive heart failure.

The first patient to receive the heart-assist treatment was a 71-year-old who had previously undergone bypass surgery and stent placements. The Impella was employed during his latest stent placement in October 2008. The patient recovered quickly and went home within days of the procedure.

Cardiac assist devices are also useful in patients experiencing congestive heart failure because the device, often employed for only a few hours, can also stay in place for several days if necessary to improve blood flow.

Doctors at the WVU Heart Institute perform between 1,300 and 1,500 angioplasties and stent placements annually. They expect to use the Impella device a few times a month.

Highlights

Warren Boling, M.D., assistant professor, Department of Neurosurgery, was featured in a news article that discussed the diagnosis of epilepsy. Dr. Boling noted that while the EEG remains the “gold standard” for diagnosing seizure disorders, new techniques are available.

According to Dr. Boling, many things can cause epilepsy. Patients can be born with it, acquire it, or it may be caused by a tumor or other brain abnormality. An EEG may look the same for all causes.

For that reason, Dr. Boling recommends individuals with newly diagnosed epilepsy have high-quality brain imaging, an MRI, which see the brain in more detail than a CT scan. Doctors also are experimenting with brain scans called magnetic resonance spectroscopy that can detect abnormalities in the brain’s biochemical processes, and with near-infrared spectroscopy, a technique that can detect oxygen levels in brain tissue.

There are two promising procedures on the horizon. Deep Brain Stimulation (DBS) is an experimental therapy in which a stimulating electrode is implanted in the brain. The implanted electrode precisely stimulates specific structures deep in the brain. DBS has been approved by the FDA for treatment of Parkinson’s disease since 1997, but it is not an accepted treatment for epilepsy at this time.

Microcomputers might also be used to predict the onset of a seizure and deliver an electronic impulse to either reduce or stop it.



Noteworthy

- The **Jon Michael Moore Trauma Center** has been re-verified as a Level I trauma center by the American College of Surgeons' (ACS) Committee on Trauma. The trauma center is one of 100 ACS-verified trauma programs in the nation and is one of 21 Level II pediatric trauma centers in the nation. The Trauma Center treats almost 3,500 patients annually. Few nationally recognized Level I trauma centers serve a predominantly rural population.
- The **Coal/Energy Coalition** identified seven faculty physicians at WVU's School of Medicine as "Best in Class." Only about 4 percent of providers serving patients covered under insurance plans of coal companies earned the honor. Certificates were awarded to Claudette Brooks, M.D.; Laurie Gutmann, M.D.; Kevin Halbritter, M.D.; Mary Ann Long, M.D.; Karen MacKay, M.D.; Jack Riggs, M.D.; and Rebecca Schmidt, D.O. Pro Pharma Pharmaceutical Consultants, Inc., which manages the Coal/Energy Coalition, reviewed the medical records of thousands of patients treated by almost 10,000 doctors and other health professionals across the country before selecting the recipients.
- The **Pediatric and Adult Cystic Fibrosis Care Program** at Charleston Area Medical Center (CAMC) Women and Children's Hospital has been accredited by the Cystic Fibrosis (CF) Foundation. The Foundation grants this designation for high-quality specialized care available throughout the care center network that leads to improved quality of life and longevity for people with CF. Robert Kalovsky is the director of the program at CAMC.
- **Stanley Zaslau, M.D.**, associate professor, Department of Surgery, section of Urology, is performing sacral neuromodulation therapy for patients with urinary incontinence. The battery-operated implant works with two small electrodes placed beneath the skin, near the sacrum or "tailbone," to give a continuous shock to the nerves that control the bladder. WVU is one of the leading centers for sacral neuromodulation in the world.
- **Magesh Sundaram, M.D.**, associate professor, Department of Surgery, was elected to the Commission on Cancer, a consortium of organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, prevention, research, and education. Dr. Sundaram will help shape the commission's educational programs and activities of the Cancer Liaison Program, a network of more than 1,600 volunteer physicians who provide local support for the commission's programs and activities.

Okey Patteson Auditorium

Okey Leonidas Patteson (1898-1989) was born at Dingess, Mingo County, and raised at Mount Hope, Fayette County. He was elected Governor of West Virginia in 1948 and served from 1949 to 1953.

One of Patteson's most important and controversial decisions was to locate the state School of Medicine, Dentistry, and Nursing at West Virginia University in Morgantown. He promoted a one-cent tax on soft drinks that paid for the construction of this building and the original University Hospital.

The schools he helped establish formed the nucleus for the University's academic health center.

Sources:

<http://www.wvculture.org/history/patteson.html>



West Virginia University



SERVICE TO THE STATE

Features • Highlights • Noteworthy

Features

***Doctors on Call* Educates, Encourages Healthy Lifestyles**

Doctors on Call is celebrating its 17th season on West Virginia Public Television. It is a live, statewide call-in television show that is designed to serve and educate West Virginians, and to encourage a healthier lifestyle.

Produced by WVU and West Virginia Public Broadcasting, the show is hosted by a WVU physician, who is joined by a pair of WVU healthcare providers to answer viewer questions on specific health topics such as cancer, children's health, smoking cessation, asthma, allergies, heart problems, diabetes, and nutrition.

"*Doctors on Call* provides a valuable service to people throughout the state who may not have ready access to healthcare professionals," said Amy Johns, director of Public Affairs for WVU Hospitals and producer of *Doctors on Call*. "We know that our physicians have helped thousands of people with important information that can save lives."

Doctors on Call is widely watched across the state and has won national awards for health programming. Some of the brightest medical minds in West Virginia are featured as guests on the show. The phone lines are busy throughout every show, with questions from callers from all 55 West Virginia counties and surrounding states.



Show Hosts: Rolly Sullivan, Joe Prudhomme, Kathy Moffett, Bob Keefover, John Phillips

WVU Research Looks at State's Healthy Lifestyles Act

West Virginia's Healthy Lifestyles Act, implemented during the 2006-2007 school year, requires schools to administer fitness and health-education assessments, to offer a certain number of minutes of physical education each week, and to measure the body mass index of children to serve as an indicator of progress.

Drew Bradlyn, Ph.D., and Carole Harris, Ph.D., both professors of Behavioral Medicine and Psychiatry and directors of the Health Research Center at the WVU School of Medicine, found that more than 40 percent of schools lacked the resources to put all of the act's requirements in place. At the same time, principals overwhelmingly support the law, saying it has prompted schools to commit to more physical activity and promote healthier eating habits among students.

“This has been such an important step forward for the state, and the fact that there is so much support for the act in the schools is really wonderful,” Dr. Harris said. “Do we have some deficiencies? Yes. Do we have some areas for improvement? Yes. But it’s a huge step forward.”



The survey of school principals, parents, student teachers, school nurses, school superintendents, physical education teachers, and healthcare providers showed that some schools are already making headway in turning the school environment into a more healthful place.

Thirty-eight percent of counties have adopted policies prohibiting junk food at parties and in after-school programs. Only 19 percent of counties have set policies prohibiting the use of food as a reward, but new state guidelines in effect this school year will move that number to 100 percent in next year's evaluation, they said. Their findings include the recommendation that schools increase physical activity for students.

Many positive changes have occurred, Drs. Bradlyn and Harris said. Some schools have added walking trails, and some principals have mobilized their staffs to create programs to improve the food choices on campuses.

The Robert Wood Johnson Foundation funded the work.

Features

SOM Students Help Locally and Nationally

When it comes to providing “service to our state,” students in WVU’s School of Medicine know no geographical boundaries.

In March, the School was a sponsor of the Third Annual Run for Cover 5K, a run/walk that benefitted Bartlett House, which provides food, shelter, and medical referrals, as well as case management, to help break the cycle of homelessness in Morgantown.



“The proceeds that Bartlett House received from ‘Run for Cover’ go to the shelter for operations of the facility,” Keri DeMasi, executive director of Bartlett House, Inc., said. “This can include purchasing supplies for the 70-plus men, women, and children that we serve.” Bartlett House provides meals, personal care items, linens, etc., for residents who are staying at the shelter.

Participants earned service hours for participating in the event.

The next month, WVU’s Exercise Physiology Club coordinated a heart-healthy event, the PUMP ‘N’ RUN. The “Pump” featured men bench pressing 100 percent of their body weight and women bench pressing 70 percent of their body weight. The 5K “Run” culminated the event. Proceeds benefitted the American Red Cross and the Exercise Physiology Club’s Scholarship Fund.

In May, first-year medical students traveled to New Orleans, where they spent their spring break volunteering with Habitat for Humanity.

Organizer Adam Morrison and a few other medical students decided they wanted to participate in a big project in order to fulfill the 100 community service hours required to graduate. The students completed 65 hours of community service and spent four days building a house and working on roofs of other homes in Musicians’ Village in the Upper Ninth Ward of New Orleans. The students raised their own money to pay for the trip.

In September, the Health Sciences Center Auditorium was officially named the **Okey Patteson Auditorium**, after the former West Virginia governor who was instrumental in locating the state's medical school in Morgantown. Patteson was a key proponent of the soft-drink tax that supported construction of the first buildings on campus and continues to fund much of the educational and research efforts.



To demonstrate the value of the medical enterprise to West Virginians, former WVU Head Football Coach Don Nehlen, who underwent heart surgery in June 2008, attended the event and recognized members of his medical team. The team numbered more than 50, including doctors, nurses who provided pre- and postsurgical care, nutritionists, anesthesiologists, exercise physiologists, lab technicians, and others.



Highlights

The **Neuromuscular Section** of WVU's Department of Neurology plays a significant role in patient care. The state's only Muscular Dystrophy Association (MDA)-supported clinic is held at the University on a weekly basis, staffed by board certified neuromuscular and clinical neurophysiology specialists. Initial evaluations and diagnoses are done in the clinic, which also has a clinical associate from the MDA present.

In addition, an amyotrophic lateral sclerosis (ALS) multidisciplinary clinic is held weekly and patients are evaluated by a neurologist, pulmonologist, psychologist, physical therapist, occupational therapist, speech therapist, dietician, social worker, and an MDA clinical associate, all with expertise in ALS patient care. This clinic is recognized by the MDA as well as by the ALS Association and listed on their websites. Clinical trials in neuromuscular diseases are also supported through these clinics.

Students from 45 high schools across the state took part in the **Health Sciences and Technology Academy (HSTA)** program, held in July at WVU. The academy consists of one-week and three-week programs throughout July. Students saw everything on campus from the cadaver lab to the computer lab. They were exposed to subjects such as exercise physiology and heard lectures such as "Diagnosis by Electrophoretic Analysis of Isozyme Concentration Patterns."

The Eastern Campus of the School of Medicine hosted the Eastern Panhandle HSTA in March. The Eastern program is an after-school club for ninth- through 12th-graders interested in careers in the health sciences.



Children with low vision from counties across West Virginia gathered at two summer camps to learn new skills during the **WVU Children's Vision Rehabilitation Project's Summer Institutes**. The WVU Eye Institute sponsored the camps, which were staffed by members of the Department of Ophthalmology.



The Institutes provide an opportunity for visually impaired children to receive direct instruction on specific skills including independent living, assistive technology, orientation, mobility, and self-help and enjoy the fun of attending a summer camp. The Institutes are offered free of charge to 20 children per location.

Ekta Choudhary, a doctoral student in public health, completed a six-week internship with the National Park Service's Risk Management Program at St. John, U.S. Virgin Islands. More than a million people visit the U.S. Virgin Islands a year. One of the objectives of the internship was to set up a system to document all the injuries that happen on park property.

Public safety is important in a place like St. John, where two-thirds of the island is a U.S. national park, said Sara Newman, Dr.P.H., of the National Park Service, who supervised Choudhary's fieldwork in St. John. Developing a risk-assessment tool to help park officials decide where to focus their efforts to prevent injury, Choudhary evaluated and rated where risks were high, medium, or low. The assessments helped identify what type of gear visitors to the park would need to prevent injury.

The new safety plan included standard procedures such as making sure a law enforcement ranger is informed and ensuring that, once the situation is under control, the park service documents the event.

In addition to the six weeks in St. John, Choudhary also worked for the National Park Service in Washington, D.C., from August to September.

Highlights

To stem the prescription drug abuse epidemic in the state, the WVU School of Medicine launched the **West Virginia Prescription Drug Abuse Quitline** in September. Health information specialists—taking calls 24 hours a day, seven days a week—can give referrals to treatment centers, provide information about Narcotics Anonymous meetings, and mail self-help materials to callers. They also make up to four follow-up calls over the course of several months.

The greatest increases of deaths from drug overdoses are not in urban areas but in rural areas. In five years (1999-2004), deaths resulting from drug overdose in West Virginia rose 550 percent. This was the largest increase of any state in the country.

The line is funded by a \$1 million grant WVU received from the state's multimillion dollar OxyContin settlement with Purdue Pharma. In 2001, West Virginia sued Purdue Pharma for its aggressive marketing of OxyContin, and the company eventually agreed to pay \$634.5 million in fines to several states, including \$10 million over four years to West Virginia.



- The School of Medicine has **outreach clinics** in the following locations, by specialty: Family Medicine—Morgantown; Medicine—Gilbert, Buckhannon, Kingwood, Wheeling, Bruceton Mills, Fairmont, Cumberland (Md.), Oakland (Md.); Neurology—Oakland (Md.); Neurosurgery—Glen Dale, Wheeling, Martinsburg; Obstetrics and Gynecology—Morgantown, Grafton; Ophthalmology—located throughout the state; Otolaryngology—Buckhannon, Clarksburg; Pediatrics Beckley, Huntington, Lewisburg, Princeton, Martinsburg, Parkersburg, Wheeling; Radiology—Ranson, Clarksburg; Surgery—Clarksburg, Martinsburg, Morgantown.
- **Barbara Ducatman, M.D.**, director of the WVU National Center of Excellence in Women's Health, was the 2008 recipient of the Women in Science and Health (WISH) Excellence Award. The WISH Committee is comprised of campus and community members who pursue a career in science. Ducatman also serves as the chair of Pathology at the WVU School of Medicine and is an internationally recognized expert in cytopathology and gynecological pathology.
- The School of Medicine hosted the state's first **Crohn's and Colitis Foundation of America support group** at the Health Sciences Center in April. The group will allow West Virginians living with Crohn's disease or ulcerative colitis to meet and share information on these conditions.
- In December, the **WVU Positive Health Clinic** teamed with Angelwish in an effort to encourage people to contribute gifts to children living with HIV or AIDS by making an online donation. Angelwish is a nonprofit organization dedicated to helping children with HIV/AIDS. The WVU Positive Health Clinic provides comprehensive HIV care to patients in the state.
- **Todd Goldberg, M.D.**, associate professor, Department of Medicine, Charleston Division, developed a fellowship program in geriatrics for physicians who already have completed their three-year residency program in family practice or internal medicine. The fellowship was designed in hopes of addressing the geriatrician shortage and expanding geriatrics training among other health professionals.





EDUCATION

Features • Highlights • Noteworthy

Features



Use of Simulation in Medical Education

In the same way flight simulators make real-life decisions easier for pilots and astronauts, mannequins, who look and act like real patients, will enhance the real-world skills of all medical learners at WVU.

The new WVU Health Sciences Center (HSC) Clinical Simulation Center improves the learning environment, saves time, reduces the cost of training, and improves patient care. Using technology first developed by the U.S. military, WVU's state-of-the-art Center operates in the heart of WVU Health Sciences clinical campus, providing additional opportunities for business and regional economic development.

The Center showcases mannequin "patients" capable of more than 72,000 human reactions—everything from trembling and sweating, to bleeding or giving birth. The curriculum is innovative, too, featuring computer-based systems for improving intubation skills, simulated OR suites, virtual humans who mimic cardiac distress, and technology that complements important standardized patient scenarios.

“These mannequins allow those in health care to do hands-on patient care in a controlled setting,” said Dan Summers, technical director of simulation at HSC.



The Center has 12 patient exam rooms with audio-video digital recording, a lab, and various size classrooms. Also featured are an operating room, an emergency room, and pediatric and adult intensive care units for the mannequins. There are also stand-alone trainer mannequins where students can practice placing IV lines, suturing, and some small surgeries.

WV STEPS

Features

SOM Students Achieve High Marks on Key Exams

The WVU Class of 2006 achieved a 100 percent pass rate on USMLE Step 3 examination. Across the United States and in Canada, the pass rate was 96 percent for medical school graduates taking the test for the first time.

“The 100 percent pass rate speaks for itself, and it’s better than the national first-time pass rate,” said Norman D. Ferrari III, M.D., senior associate dean for Medical Education. “When they graduate, we send them off to residency programs well prepared. This is just more evidence of how well our students do.”



“Our students always do well on the exam, but we’re pleased to learn that in 2006 all of them did exceptionally well,” said James Brick, M.D., interim dean of the School of Medicine. “Their great performance is a testament to the hard work they do while in medical school and the quality of instruction they receive.”

The news was also good for Physical Therapy graduates in 2006 and 2007, with 93 percent of graduates passing their boards on their first attempt, compared to the national average of 88 percent. One hundred percent passed on subsequent attempts.

Physical Therapy students in the classes of 2008 and 2009 had a 100 percent pass rate on the comprehensive examination given to second-year doctoral students. The exam is a 200 question computer test that covers all of the didactic material presented in the first two years of the program. The practical exam is a comprehensive patient case that covers all aspects of patient/client management. Students are required to pass both portions of the exam to progress to the third year.

New Fellowship Offered in Sports Medicine

The newest fellowship available at WVU is with the Clark K. Sleeth Department of Family Medicine Sports Medicine Center. The Center, which provides expert medical care through onsite X-ray, splinting and casting capabilities, and exercise instruction, also cares for a variety of fractures, strains, and injuries.

“There are many athletes in West Virginia who need specialized care to prevent and treat athletic injuries, and manage their other health issues so that they can continue to compete,” Norman D. Ferrari III, M.D., senior associate dean for Medical Education, said. “We offer the only accredited sports medicine training program in the state.”

The Family Medicine Sports Medicine program received zero citations from the Accreditation Council for Graduate Medical Education, making it the eighth program at WVU with this distinction. The other programs with zero citations are dermatology, hematopathology, neonatology, neuroradiology, nuclear medicine, radiology, and transitional year.

The School was also named one of the nation’s top 10 medical schools honored for contributing to the family medicine training pipeline by the American Academy of Family Physicians during the 2009 Society of Teachers of Family Medicine spring conference. The schools were recognized for their exemplary performance in matching graduating medical school seniors into family medicine residency programs from 2005-2008.

“Our education programs are all fully accredited and offer our students the opportunity to learn the knowledge and skills necessary to become great physicians,” Dr. Ferrari said. “While we emphasize the importance of a solid understanding of the science that is the foundation of medicine, we have not forgotten the importance of professionalism and humanism, which are the behaviors that make our physicians special.”



Highlights

WVU is now home to a local chapter of the **Gold Humanism Honor Society**, a group that promotes humanism and professionalism throughout the continuum of physician education from the first day in medical school until retirement from medical practice. The first student members were selected from the Class of 2010.



The chapter plans to carry its message statewide into communities across West Virginia through the Rural Health Education Partnership.

The School of Medicine chapter includes students and faculty from all three clinical campuses. Each year the chapter will select a maximum of six resident and two faculty members. The Society hopes to engage faculty in all health science disciplines (Nursing, Dentistry, and Pharmacy) in role modeling and educating health professionals in the area of humanism.



Ludwig Gutmann, M.D., professor, Department of Neurology, recently authored, “The Immobile Man: A Neurologist’s Casebook.” The book details Dr. Gutmann’s 40 years in medicine, from his training in New York City through his life-long practice at WVU.

The book features stories about ordinary and extraordinary people—all patients with different neurological problems—but stories more about their personal struggles and coping than their diseases.

According to Dr. Gutmann, the stories in the book delve into different issues: from medical-ethical dilemmas; to misunderstandings or secrets or lies; to tracking down the causes of real or imaginary illness. However, the overarching theme is the patient and the patient’s history. Listening to and understanding is the first order in identifying cause and prescribing care.

The School of Medicine has established a **Histotechnology** program. Histotechnologists perform routine and complex procedures to preserve and process tissue specimens in fields such as veterinary pathology, marine pathology, forensic pathology, and public health.

The Histotechnology program is an area of emphasis within the Medical Laboratory Science program. Students can apply for the program as sophomores and begin their junior year. Students graduate with a Bachelor of Science degree.

The U.S. Department of Health and Human Services predicts that by 2012 there will be a need for 138,000 lab professionals with fewer than 50,000 trained. There are currently only three accredited histotechnology programs in the United States.




Ruth Kershner, Ed.D., associate professor in the Department of Community Medicine at WVU, was chosen 2008 Professor of the Year by the Faculty Merit Foundation of West Virginia. The foundation recognizes and rewards innovation and creativity in the faculties of West Virginia's public and private colleges and universities.

A registered nurse, Kershner has been a member of the WVU faculty since 1991.

Kershner orients her students toward community service projects such as working at food banks in Morgantown and distributing alcohol information outside bars during the first few weeks of the new academic year. They also volunteer in public schools, at the West Virginia Bureau for Public Health, and at the U.S. Environmental Protection Agency. Under her leadership, WVU's Community Medicine Student Association earned recognition from the West Virginia Health Education Council.

Mary J. Wimmer, Ph.D., biochemistry professor in the School of Medicine, was also a finalist for the award.

- 
- **Laurie Gutmann, M.D.**, professor, Department of Neurology, was appointed chair of the American Academy of Neurology Residency In-Service Training Exam Committee. Dr. Gutmann has been a member of the committee for the past seven years.
 - **Gauri Pawar, M.D.**, associate professor, Department of Neurology, was appointed section chief for the physiology section of the American Academy of Neurology Residency In-service Training Exam Committee. Dr. Pawar has been a member of the committee for the past four years.
 - **Chris Martin, M.D.**, associate professor, Department of Community Medicine, has been appointed to the United States Medical Licensing Examination Step 1 Introduction to Clinical Diagnosis Test Material Development Committee for the National Board of Medical Examiners. Dr. Martin will serve a two-year term on the committee and will be involved in writing questions for the exams taken by all medical students in the country. He was also appointed by the American Association of Medical Colleges to the advisory group for the joint AMA/AAMC conference in September 2010 to commemorate the 100th anniversary of the Flexner Report.
 - **James M. Shumway, Ph.D.**, associate dean for Medical Education, was appointed institutional review-team secretary for the Liaison Committee on Medical Education (LCME), a joint committee of the American Medical Association and the Association of American Medical Colleges. The LCME institutional review team secretary sets up the accreditation site visit by working with the school and writes the institutional accreditation review report.
 - **Andrew Roorda, M.D.**, digestive diseases fellow, was named associate editor of the *Journal of Practical Gastroenterology*.
 - **Mollie McCartney, M.D.**, Degree Class of 2012, was selected to serve in a national leadership position with the Rural Medical Education Student Caucus of the National Rural Health Association.
 - The **Masters in Public Health** program was re-accredited for the maximum seven-year term by the Council on Education for Public Health. Ian Rockett, Ph.D., is the director of educational programs in the Department of Community Medicine.

Noteworthy

- **Gordon F. Murray, M.D.**, professor emeritus, Department of Surgery, was elected president of The Society of Thoracic Surgeons at its 45th annual meeting. Dr. Murray has held the title of chair of the Department of Surgery, chief of Cardiothoracic Surgery, director of the Thoracic Residency Program, and chief of Surgical Services at WVU.
- **Greg Rosencrance, M.D.**, chair, Department of Medicine, Charleston Campus, was named president, chief executive officer, and chairman of the Board of West Virginia University Physicians of Charleston.
- **Michael D. Schaller, Ph.D.**, was named chair of the Department of Biochemistry. Dr. Schaller comes to WVU from the University of North Carolina, where he was professor of cell and developmental biology.
- **Gregory W. Konat, Ph.D.**, professor, Department of Neurobiology and Anatomy, edited the book, "Signaling By Tool-Like Receptors."
- The **Forensic Psychiatry** program, directed by Ryan Finkenbine, M.D., received the maximum re-accreditation of five years.
- Thirty clinical laboratory science students in **Medical Technology** received their white coats, signifying the beginning of the clinical and final year of education.





A photograph of a modern laboratory. The scene is dominated by light-colored wood paneling and cabinetry. In the foreground, there are wooden drawers with silver handles. Above them, a wooden countertop holds a piece of equipment. In the background, a microscope is visible on a table, and several people are working at a lab bench. The ceiling features recessed fluorescent lighting. The overall atmosphere is clean, professional, and well-lit.

RESEARCH

Features • Highlights • Noteworthy

Features

Senator Robert C. Byrd Dedicates New WVU Biomedical Research Center

U.S. Sen. Robert C. Byrd delivered the keynote address at the naming and dedication ceremony of WVU's Erma Byrd Biomedical Research Center. The building is named for the senator's late wife, Erma Ora James Byrd, who died in 2006.

The 118,000-square foot building houses research laboratories for the WVU Sensory Neurosciences Research Center, the Center for Interdisciplinary Research in Cardiovascular Sciences, and for the School of Pharmacy. It's also the future location for the Multiple Sclerosis and Neurodegenerative Diseases Research Center.

“Senator Byrd’s support has been essential to the growth and development of the Health Sciences Center over the last 50 years,” Fred Butcher, Ph.D., interim vice president for WVU Health Sciences, said. “Without him, this building and many others would not be here. But it’s more than the bricks and mortar—this ultimately leads to better education, research, patient care, and service to the state of West Virginia.”

Sen. Byrd was instrumental in securing \$19.6 million in federal funds for the Biomedical Research Center. He also helped to secure funding for the Health Science Learning Center, which provides a library, classrooms, computer labs, and study space for WVU students.

“While we have more to accomplish, today I am so very proud to add the Erma Byrd Biomedical Research Center and the Health Sciences Learning Center to that list of facilities that will help transform the unthinkable into realities that will improve the lives of the people of West Virginia and advance modern medicine,” Sen. Byrd said.





From left to right – Dr. Fred Butcher, interim vice president for WVU Health Sciences; U.S. Rep. Alan B. Mollohan; U.S. Sen. Robert C. Byrd; Dr. C. Peter Magrath, interim WVU president

A photograph of a modern glass and steel building. In the foreground, a sign reads "WEST VIRGINIA UNIVERSITY" with a logo, and below it, "ROBERT C. BYRD HEALTH SCIENCES CENTER" and "IRALA BYRD BIOCHEMICAL RESEARCH CENTER".

WEST VIRGINIA UNIVERSITY
ROBERT C. BYRD HEALTH SCIENCES CENTER
IRALA BYRD BIOCHEMICAL RESEARCH CENTER

Features

WVU Creates Pediatric Research Institute

Building on its strong history of pediatric research, WVU has created a Pediatric Research Institute.

“We are exhilarated to be able to take our research to the next level to serve the needs of children throughout West Virginia,” said Giovanni Piedimonte, M.D., chair of the Department of Pediatrics and physician-in-chief at WVU Children’s Hospital. “Whenever we invest in children, we invest in our future.”

Funding for the WVU Pediatric Research Institute comes from two sources: a generous bequest from a former WVU physician and unclaimed money from a court settlement.



Through a bequest from the late James H. Walker, M.D., former WVU physician and professor on the Charleston campus, \$6.378 million will go toward the institute and the creation of the James H. Walker Chair in Pediatric Cardiology. WVU pediatric cardiologist William A. Neal, M.D., is the inaugural recipient of the Walker Chair.

In addition, the institute will receive \$5.67 million from settlement money involving Warner-Lambert Co. and Parke-Davis, creators of the diabetes drug Rezulin.

Dr. Piedimonte said the money would be used primarily to research a link between obesity, diabetes, and asthma in West Virginia’s children. Currently, about 60 percent of faculty members in the Department of Pediatrics are actively engaged in research, with more than 16,500 square feet of space within the Department of Pediatrics dedicated to research.

WVU Wins \$1.47 Million Grant to Study Stem Cell Role in Acute Lymphoblastic Leukemia

The National Cancer Institute awarded Laura Gibson, Ph.D., of WVU's Mary Babb Randolph Cancer Center, a five-year, \$1.47 million grant to study stem cells to learn better ways to treat acute lymphoblastic leukemia (ALL). Almost a quarter of all children with cancer suffer from ALL.

"The project is designed to study the survival and growth of leukemia stem cells in the bone marrow to identify strategies to render them more responsive to treatment," said Dr. Gibson, who is associate Center director for Translational Research. "We hope that if we can learn more about how some individual cancer cells are able to survive after chemotherapy, we can then develop treatment strategies that are more effective while having fewer side effects on children with cancer."

In addition to the recently awarded grant focused on leukemia, the National Institutes of Health has funded Gibson's lab for more than 10 years in its studies of mechanisms by which aggressive chemotherapy alters the bone marrow microenvironment.

Identifying ways to help the patient's immune system efficiently rebuild following bone marrow transplantation is the primary goal of these studies.



The team works in close collaboration with clinical faculty members who work with patients in WVU Children's Hospital and WVU's Mary Babb Randolph Cancer Center.

Highlights



A study by **Giovanni Piedimonte, M.D.**, chair, Department of Pediatrics, was published in the March issue of *Pediatrics*, which showed that seven days after a group of school-aged children left the city for a rural area, airway inflammation went down, and lung function increased.

Previous studies found that exposure to particulate matter from air pollution increases the use of asthma medicines and leads to more hospitalizations for asthma, according to background information in the current study. Other pollutants have been associated with a predisposition to respiratory infections, wheezing, and a stronger reaction to inhaled allergens. What had not been studied, according to the authors, was whether the negative response to air pollution is reversible.

To try to answer that question, the researchers took 37 children who lived in an urban area in Italy and brought them to a rural hotel for a week of camp. All of the children had allergies and mild persistent asthma, though none were being treated at the time of the study.

Air pollution, pollen counts, and meteorological conditions were monitored at both sites. The children underwent testing at both sites as well. The kids' tests included measures of allergic reactions—using nasal eosinophils, white blood cells linked to allergies—and lung function.

After a week in the rural environment, there was a fourfold decrease in nasal eosinophil levels and an increase in lung function, as measured by peak expiratory flow.



Andrew Bradlyn, Ph.D., co-director of the WVU Health Research Center, worked with a research team to create a video game that will lead to better health outcomes for adolescent cancer patients. The team wanted to create a fun and energetic game that everyone would want to play—whether they have cancer or not.

More than 125,000 copies of the game have been distributed in 80 countries to cancer patients ages 13 to 29.



Re-Mission, developed by HopeLab, focuses on the behavioral and psychological aspects of successful cancer treatment. The player becomes a microscopic robot named Roxxi. Roxxi travels through the bodies of fictional cancer patients, annihilating cancer cells and battling the side effects of treatment.

In 2001, Bradlyn began collaborating with the study's principal investigator, Pam Kato, Ph.D., and co-author Brad Pollock, Ph.D. It's the largest study of a video game intervention ever completed.

The study followed three months of cancer treatment for 375 teens and young adults at 34 medical centers. The centers were located in the United States, Canada, and Australia.

The study showed that participants who used Re-Mission maintained higher levels of chemotherapy in their blood and took their antibiotics more consistently than patients not playing Re-Mission. Re-Mission patients were also quicker to pick up on cancer-related knowledge than the control group.

The game is free to cancer patients and can be downloaded or ordered at re-mission.net.

Highlights

The National Institute of General Medical Sciences, part of the National Institutes of Health, awarded a \$1 million training grant to the School of Medicine. The training grant will help recruit and train the next generation of biomedical and behavioral science researchers at WVU.



The research training program in behavioral and biomedical sciences pools resources and faculty expertise from WVU's existing biomedical, psychology, and public health/health outcomes doctoral programs.

The money, distributed over a five-year period beginning July 1, goes toward stipends, tuition, and health insurance expenses for Ph.D. students. The training grant supports research to help ensure that a diverse and highly trained workforce is available in the future to assume leadership roles as independent scientists in academic institutions.

More than 40 faculty members from the School of Medicine, School of Pharmacy, and the Eberly College of Arts and Sciences serve as preceptors for the program. A faculty steering committee appoints students to the training program based on merit, academic qualifications, interest in behavioral research, and commitment to interdisciplinary research training.

The program is directed by Health Sciences faculty members James O'Donnell, Ph.D.; Albert Berrebi, Ph.D.; Suresh Madhavan, Ph.D.; and Kevin Larkin, Ph.D.

The U.S. Department of Health and Human Services awarded the **WVU Institute for Health Policy Research** a four-year, \$2.6 million grant to establish a national center devoted to rural health research. The award comes from the HHS Office of Rural Health Policy, which promotes research on healthcare in rural areas.

To qualify, centers identified a nationally relevant topic of concern. WVU's topic is the impact of environmental hazards on the health and economies of rural communities, said Michael Hendryx, Ph.D., director and principal investigator for the West Virginia Rural Health Research Center. According to Dr. Hendryx, people in rural settings face potential hazards from many sources, such as pesticides and fertilizer runoff in agricultural areas and industrial environmental hazards including those from the mining, timbering, and lumbering industries.

The new Center will work to identify what the risks are, who is exposed to them, what the health impacts are, and what steps need to be undertaken to reduce those risks. The ultimate objective is to help create healthier environments for rural people across the country.

The Center will have offices in Morgantown and Charleston. The research team also includes Cynthia Persily, Ph.D., professor in the WVU School of Nursing's Charleston Division, who will serve as deputy director; Joel Halverson, Ph.D., research instructor with the WVU School of Pharmacy; Sally K. Richardson, executive director of the Institute and associate vice president for Health Sciences; and Hilda R. Heady, associate vice president for Rural Health and director of the WVU Office of Rural Health.

WVU received a three-year, \$120,000 grant from the **American Cancer Society (ACS)** to support four junior faculty members. The pilot projects will involve population studies or laboratory based research.

According to Scot Remick, M.D., director of the Mary Babb Randolph Cancer Center at WVU, the grant will provide junior faculty an opportunity to seek competitive funding to support their cancer research and serves as a testament to the partnership between WVU and the American Cancer Society to support cancer research in West Virginia.

WVU's grant is one of 17 awarded nationwide by the ACS and is the only such grant awarded in West Virginia.

Highlights

Beverly Kirby, Ed.D., MT(ASCP), associate professor, Medical Technology, Department of Pathology, received the 2008 Distinguished Author Award from the American Society for Clinical Laboratory Sciences for, “The Rural Rotation in a Medical Technology Program: A Ten Year Retrospective Study.” This study evaluated the effectiveness of a rural rotation as a tool to recruit medical technology program graduates to medically underserved areas.

Results of the survey suggest that a prior rural affinity is a factor associated with selection of rural sites for medical technology program graduates. The survey results also suggest that a rural rotation during medical technology education is beneficial to individuals, including those who elect not to go to rural sites after graduation.



Julian Bailes, M.D., chair, Department of Neurosurgery, spoke about his research involving retired NFL players and brain injuries with Bennet Omalu, M.D. Omalu is the author of the book, “Play Hard, Die Young: Football Dementia, Depression and Death.”

Dr. Bailes’ study included post-mortem tests on five different players’ brains, which revealed major damage to their neurons. A special stain, called Tau, showed dark brown spots similar to what an elderly Alzheimer’s patient’s brain would develop, he said.

Dr. Bailes performed this same test on the brain of Chris Benoit, a professional wrestler who committed suicide after killing his wife and child in 2007. He said the Tau stain test revealed the same type of neuron damage.

Bailes said he did not want to scare parents or coaches, or cast any negative light on contact sports. However, multiple concussions, especially head-to-head hits, may be detrimental in the long run.

The National Heart, Lung and Blood Institute

renewed its support of the research of WVU scientist S. Jamal Mustafa, Ph.D., whose studies have helped improve understanding of the chemicals that regulate blood flow to the heart.




The five-year, \$2.5 million grant will support three faculty scientists including co-investigator Mohammed Nayeem, Ph.D.; three graduate assistants; and a research specialist, all of whom are involved in the study of adenosine, a chemical the body releases into the bloodstream in response to injury or stress.

Dr. Mustafa is a professor of physiology and pharmacology, and also assistant dean for research, in the WVU School of Medicine.

Adenosine acts as a chemical messenger, signaling the smooth muscle cells that form the walls of the vessels. When the signaling is successfully completed, the vessels open wider so that blood can flow more easily to the heart and lungs. A better understanding of the role of adenosine could lead to improvement in drugs that are used to treat heart disease.

The research is specifically focused on cytochrome P450, an enzyme in the cell that allows it to respond to adenosine. These enzymes play an important role in a number of cardiovascular diseases including high blood pressure, coronary artery disease, heart attack, heart failure, stroke, and arrhythmia.



Dina L. Jones, Ph.D., assistant professor, departments of Orthopaedics and Physical Therapy, received a grant from the U.S. Centers for Disease Control and Prevention through the Association of American Medical Colleges to study the relationship between physical activity and arthritis. The study, done at senior centers across the state, will determine if exercise classes improve arthritis symptoms and physical function in the participants.

Students in the **Department of Family Medicine** will get special training in caring for vulnerable and special-needs populations under a three-year, \$588,000 grant from the Health Resources and Services Administration. Dorian Williams, M.D., professor, Department of Family Medicine, will serve as the principal investigator for this training grant. This is the fourth training grant for the Department in the past 10 years.

Penny Klinkhachorn, Ph.D., associate professor, Department of Neurobiology and Anatomy, was appointed to the review panel on MedEdPORTAL, the Association of American Medical Colleges (AAMC)-sponsored venue for online publication of educational materials. Dr. Klinkhachorn was recently selected to receive the "Outstanding Reviewer Award" from the AAMC for her exemplary contribution and service as a peer reviewer.

John Hollander, Ph.D., assistant professor of Exercise Physiology, was selected to receive the National Institutes of Health Directors New Innovator Award. This five-year grant was created to support a small number of new investigators "of exceptional creativity who propose bold and highly innovative new research approaches that have the potential to produce a major impact on broad, important problems."

George A. Kelley, D.A., and **Kristi S. Kelley, M.Ed.**, researchers in the Department of Community Medicine, examined the effects of aerobic exercise—running, cycling, and swimming—on non-high-density lipoprotein cholesterol (non-HDL-C) in children and adolescents. Non-HDL-C is calculated by subtracting the good cholesterol, known as high-density lipoprotein cholesterol, from total cholesterol. The study, supported by a grant from the National Heart, Lung and Blood Institute, part of the National Institutes of Health, appeared in the summer issue of *Progress in Cardiovascular Nursing*.

Noteworthy

West Virginia University Community Medicine student **John Bloisnich** received the Walter J. Lear, M.D., Outstanding Student Research Award at the 136th annual meeting of the American Public Health Association. His research project, titled, "Violence by any other name: using population-based data to explore intimate partner violence in same sex and opposite sex couples," looked at data from surveys conducted by the Centers for Disease Control and Prevention to identify differences between victims of intimate partner violence in same-sex versus opposite-sex relationships and between urban and rural areas.

WVU biochemistry graduate student **Sushant Bhatnagar's** research, which won a first-place award at an international conference in Arizona, is determining how a newly discovered hormone—termed fibroblast growth factor-19—reverses type 2 diabetes and obesity in animals. The compound inhibits synthesis of fat in the liver, a metabolic process that plays a key role in the development of type 2 diabetes and obesity in humans. The research findings could eventually aid in the development of a new therapeutic approach to treat diabetes and obesity.

Anoop Shankar, M.D., Ph.D., associate professor, Department of Community Medicine, conducted a study that found that adults who regularly sleep seven hours a night have lower rates of coronary heart disease. The study examined almost 60,000 adults of Chinese ethnicity in Singapore. At the time of the study, Dr. Shankar was an associate professor in the Department of Community, Occupational and Family Medicine at the National University of Singapore. He came to WVU in June 2008. This study is part of a secondary study to a large, ongoing examination funded by the National Institutes of Health of the role of Asian dietary factors in the development of cancer and cardiovascular disease. Shankar's study was published in the December 15 edition of the *American Journal of Epidemiology*.

Cecil Pollard, M.A., assistant professor, Department of Community Medicine, has conducted a study on diabetic patients in rural community health centers who benefit when physicians use electronic patient registries. The registry is a database that collects information on patients with chronic conditions.

Information gathered includes blood pressure, cholesterol, and A1C, a blood test that shows an average blood glucose level over a two- to three-month period. The database also helps identify patients who have gone long periods between visits. According to the study, the diabetic patients of physicians who used the registry saw significant improvements in their blood pressure, cholesterol, and A1C.

The American Lung Association's N-O-T on Tobacco program, developed at WVU's Prevention Research Center, has helped many teens quit smoking. The group has released a nationwide one-stop web portal for the program. The portal offers points of entry for teens interested in participating in the program, along with ways for teachers, counselors, nurses, youth coordinators, and health educators to join the effort or receive training as facilitators. Since 1999, more than 150,000 teens in 48 states have participated in the N-O-T program.

WVU School of Medicine faculty researchers, winning a growing share of federal spending for biomedical research, continue to advance the school's rankings in **National Institutes of Health (NIH)** funding. The advance comes even as federal spending on research decreased over the past three to four years. The 2008 figures show WVU edging up one notch to 92nd among the 127 medical schools awarded NIH funding for research projects. Nationwide, NIH grants to medical schools dropped by \$340 million from 2007 to 2008 while WVU's share of the \$10.98 billion increased by \$100,000.

A study led by **Jeffrey H. Coben, M.D.**, a professor in the WVU Injury Control Research Center, shows injuries requiring hospitalization occur at much higher rates in rural areas. Compared with urban counties, hospitalization rates for injuries were 35 percent higher in sparsely populated rural counties and 27 percent higher in more populated rural counties. The study was published in the January issue of the *American Journal of Preventive Medicine*.



Noteworthy

RESEARCH





A dark blue background with a blurred image of hands holding a glowing, golden orb. The orb is positioned in the upper left and lower left corners, with light rays emanating from it. The hands are positioned as if they are presenting or holding the orb. The overall mood is one of achievement and excellence.

DEAN'S AWARDS

FOR EXCELLENCE

Dean's Awards



Excellence in Clinical Science

Jose L. Cruzzavala, M.D., Surgery
Rodney F. Kovach, M.D., Dermatology
Christopher H. Rassekh, M.D., Otolaryngology

Excellence in Education

Penprapa Klinkhachorn, Ph.D.,
Neurobiology and Anatomy

Second Year Curriculum Development Committee:

Kenneth Landreth, Ph.D.,
Microbiology/Immunology
David Smith, Ph.D.,
Physiology and Pharmacology
Colleen Watkins, M.D., Rheumatology
Sharon Wenger, Ph.D., Pathology
Dorian Williams, M.D., Family Medicine
Harold "Jim" Williams, M.D., Pathology
Karen Woodfork, Ph.D.,
Physiology and Pharmacology

Distinguished Teacher

Robert J. Tallaksen, M.D., Sr. Level, M.D. Degree Program
Mark Paternostro, Ph.D., Jr. Level, M.D. Degree Program
William F. Wonderlin, Ph.D., Sr. Level, Professional Programs
Lori A. Sherlock, M.S., Jr. Level, Professional Programs

Excellence in Research

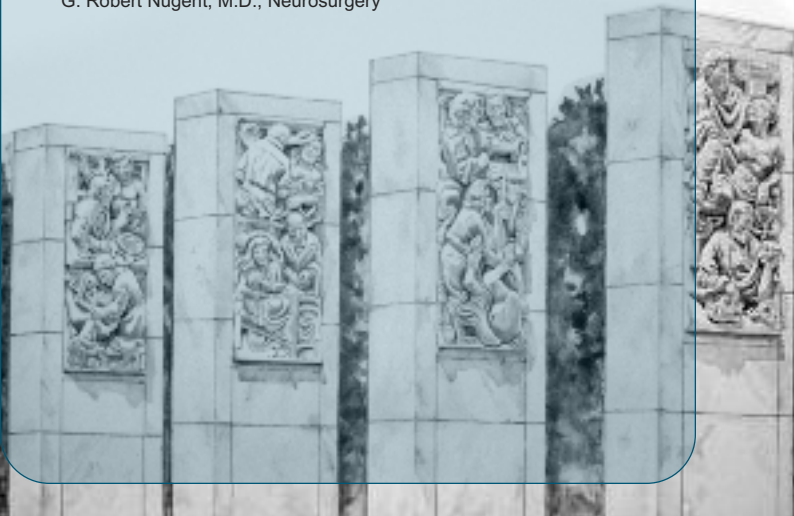
John M. Hollander, Ph.D., Exercise Physiology
Raymond R. Raylman, Ph.D., Radiology

Service to the School

Norman D. Ferrari, III, M.D., Graduate Medical Education
Jeri L. Whitten, C-TAGME, Residency Education (Charleston)

Dedication to the Profession of Medicine

G. Robert Nugent, M.D., Neurosurgery







ALUMNI

Alumni

2008

Lauren Frost, B.S., Exercise Physiology, was one of 15 students selected to intern at NASA's Johnson Space Center. She will evaluate methods of exercise that aim to protect astronauts' health by countering the bone and muscle-mass loss that occurs in the microgravity environment of space.

Theo Oyelayo, M.D., occupational medicine resident, is working with the U.S. Department of Labor Occupational Safety & Health Administration.

2005

Raymond Leonard, M.D., a pediatrician specializing in the care of patients from newborns through early adulthood, opened a new practice in Buckhannon, W.Va. Dr. Leonard earned bachelor's and master's degrees in exercise physiology before going to medical school at WVU.

2003

Aaron Hartstein, M.P.T., FAAOMPT, received fellowship status in the American Academy of Orthopaedic Manual Physical Therapists.

2001

Ranya Habash, M.D., was named the Outstanding Young Ophthalmologist in Florida by the Florida Society of Ophthalmology.

Sheyi Ojofeitimi, B.A., M.P.T., is a senior research associate with ADAM Center at Long Island University, and a senior physical therapist with the Alvin Ailey American Dance Theater, where she provides backstage injury rehabilitation, education, and injury prevention.

1998

Beth Cook, M.D., was named the chief medical advisor for Summersville (W.Va.) Medical Center.

1997

Sara C. Allman, M.D., is the recipient of the Secretary of Veterans Affairs' Hands and Heart award for her "professional expertise and delivery of emotional support, help, and guidance to patients above and beyond the call of duty." Dr. Allman began her VA career in 2000 at the Huntington, W.Va., VA Medical Center.

1996

Mariano De la Mata, M.D., joined the staff at Heart of Florida Regional Medical Center in Davenport. Dr. De la Mata also completed his residency in internal medicine and pediatrics at WVU.

1995

Scott Davis, M.D., joined the Holzer Clinic Lawrence County Campus in Proctorville, Ohio. Dr. Davis also completed his residency at WVU in internal medicine.

1993

Michael Covelli, M.D., was named the medical director for HospiceCare in Charleston, W.Va.

1978

Ellen Shaw de Paredes, M.D., was the recipient of the 2008 School of Medicine Alumnus Award.

1976

Jeffrey Jones, M.D., was elected chief of staff at Battle Creek Health System (Michigan). His two-year term began on July 1, 2008.

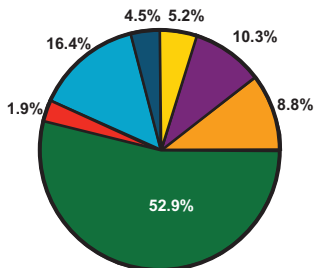
1953

John Battaglino, M.D., retired after 47 year as an obstetrician and gynecologist at Wheeling Hospital in West Virginia.



Finances

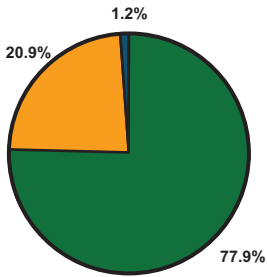
WVU School of Medicine Sources of Funds
F/Y 09 (Projected)



- Tuition and Fees ■ State ■ Grants / Contracts
- Practice Plans ■ Gifts / Endowments ■ Hospitals
- Other

	Amount	Percentage
Tuition and Fees	\$18,300,000	5.2
State	\$36,100,000	10.3
Grants / Contracts	\$30,700,000	8.8
Practice Plans	\$185,000,000	52.9
Gifts / Endowments	\$6,500,000	1.9
Hospitals	\$57,500,000	16.4
Other	\$15,700,000	4.5
TOTAL	\$349,800,000	100.0

WVU School of Medicine Expenses
F/Y 09 (Projected)



■ Personnel ■ Operations ■ Equipment

	Amount	Percentage
Personnel	\$270,000,000	77.9
Operations	\$72,500,000	20.9
Equipment	\$4,300,000	1.2
TOTAL	\$346,800,000	100.0

Morgantown Division

Dean, James E. Brick, M.D. (interim)

Senior Associate Dean, Medical Education,
Norman D. Ferrari III, M.D.

Associate Dean for Professional &
Undergraduate Programs,
MaryBeth Mandich, P.T., Ph.D.

Associate Dean for Clinical Services,
Gary Marano, M.D. (interim)

Associate Dean for Faculty Services,
Barbara Ducatman, M.D.

Associate Dean for Development,
James Stevenson, M.D.

Associate Dean for Finance,
Timothy Palencik, M.B.A.

Associate Dean for Hospital Services,
Michelle Nuss, M.D. (interim)

Associate Dean for Medical Education,
James M. Shumway, Ph.D.

Associate Dean for Research & Graduate
Studies, Thomas M. Saba, Ph.D.

Associate Dean for Student Services and
Student Professional Development,
Anne C. Cather, M.D.

Associate Dean for Veterans Affairs,
Maria M. Kolar, M.D.

Chief Administrative Officer,
Leslie Miele, M.S.

Assistant Dean for Research & Graduate
Studies, Fred Minnear, Ph.D.

Assistant Dean for Research & Graduate
Studies, Jamal Mustafa, Ph.D.

Assistant Dean for Research & Graduate
Studies, James O'Donnell, Ph.D.

Assistant Dean for Medical Education
Technology, David Wilks, M.D.

Basic Science Department Chairs

Biochemistry, Michael Schaller, Ph.D.

Microbiology, Immunology, and Cell Biology,
John Barnett, Ph.D.

Neurobiology and Anatomy,
Richard Dey, Ph.D.

Physiology and Pharmacology,
Robert Goodman, Ph.D.

Clinical Department Chairs

Anesthesiology, Richard Driver, M.D.

Behavioral Medicine and Psychiatry,
James Stevenson, M.D.

Community Medicine, Alan Ducatman, M.D.

Emergency Medicine, Todd Crocco, M.D.

Family Medicine, James Arbogast, M.D.

Medicine, Kevin Halbritter, M.D. (interim)

Neurology, John Brick, M.D.

Neurosurgery, Julian Bailes, M.D.

Obstetrics and Gynecology,
Michael Vernon, Ph.D.

Ophthalmology, Judie Charlton, M.D.

Orthopaedics, Sanford Emery, M.D.

Otolaryngology, Stephen Wetmore, M.D.

Pathology, Barbara Ducatman, M.D.

Pediatrics, Giovanni Piedimonte, M.D.

Radiology, Mathis Frick, M.D.

Surgery, Richard Vaughan, M.D.

Professional Programs

Community Medicine Education Programs,
Ian Rockett, Ph.D.

Exercise Physiology, Stephen Alway, Ph.D.

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