Pitt Wins Big East Championship

Four consecutive victories at Madison Square Garden move Pitt to NCAA Tournament

Pitt Gets $11.4 Million From Gates Foundation to Research Tuberculosis Treatments

By Clare Collins

The University of Pittsburgh Center for Vaccine Research has received an $11.4 million grant from the Bill & Melinda Gates Foundation to develop new strategies to control tuberculosis (TB), a contagious disease that infects one-third of the world’s population and kills almost two million people every year.

The grant will enable Pitt researchers to use new imaging technologies to study TB to shorten and simplify its course of treatment, potentially improving survival and curtailing the global TB epidemic.

“One of the most challenging issues in treating TB and stopping its spread is the length of time it takes to adequately stem the infection,” said JoAnne Flynn, principal investigator of the grant and professor of microbiology and molecular genetics in the Pitt School of Medicine. “Current drugs are available, but we don’t fully understand how or why they work. TB treatment must be continued for at least six months to be effective, placing an undue burden on those who are infected—often from the poorest and most disadvantaged countries.”

Flynn said TB is difficult to control

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Pitt, Carnegie Mellon, WVU Consortium Receives Funding For Fossil Energy Research

A consortium of three universities—Carnegie Mellon University, the University of Pittsburgh, and West Virginia University (WVU)—will receive up to $26 million in funding over the next two years to develop clean and efficient technologies for the use of fossil fuels. The results of the consortium’s work could reduce regional as well as national dependence on foreign oil.

The partnership, called CWP Inc., will receive the funding through a subcontract with RDS Inc., an onsite contractor at the National Energy Technology Laboratory (NETL). NETL is the national laboratory for the U.S. Department of Energy’s Office of Fossil Energy with facilities in five states, including Pennsylvania and West Virginia.

More than 75 scientists—with student researchers—at the three universities will work with more than 150 NETL scientists and researchers to address key areas of fossil fuel research.

Speaking on behalf of CWP Inc., Pitt Chancellor Mark A. Nordenberg, who also chairs the group’s board, said, “The three university members of this consortium have distinguished records of research, as well as a proud tradition of effective partnering. We are excited by the opportunities presented by the work to be done through this consortium. Our researchers are positioned to have a significant and positive impact on the economy, the environment, and national security, while further establishing our home region as a leader in energy research. We also are proud to have formalized this new relationship with NETL, which is a national

Continued on page 5

On a Roll

The Pitt men’s basketball team continued its string of victories, trouncing Oral Roberts University 82-63 in Denver on March 20. The win follows the Panthers’ four victories in four days when they claimed the school’s second Big East Tournament championship: 74-65, Georgetown, March 15; 68-61, Marquette, March 14; 76-69, Louisville, March 13; and 70-64, Cincinnati, March 12. Those four victories sent the Panthers into the NCAA Tournament for the seventh straight year. Junior Sam Young (top) was named the Big East Tournament’s Most Outstanding Player and junior Levance Fields was awarded All-Tournament honors. Photo at right, from left: seniors Ronald Ramon, Mike Cook, and Keith Benjamin celebrate the Big East Championship victory. (Additional photos on Page 4.)
Pitt to Host “Crossroads of the World: 25 Years of African American History in Greater Pittsburgh”

By Sharon S. Blake

The role African Americans played in shaping the Pittsburgh region will be the focus of the 31st Annual Conference on Black History in Pennsylvania, to be held April 3-5 on the University of Pittsburgh campus in Oakland.

This year, the annual conference, sponsored by the Pennsylvania Historical and Museum Commission (PHMC), is titled “Crossroads of the World: 25 Years of African American History in Greater Pittsburgh.”

Scholars, government leaders, preservationists, students, tourism professionals, and many others from across the state will convene at Pitt to explore this region’s Black history and its connections to the Civil War to how Pittsburgh manifested the contributions to jazz from its early years to the present. The registration fee is $65, but some conference events are at a lower cost or free. For conference information and a conference registration form, visit www.phmc.state.pa.us or call the PHMC at 717-783-9871.

Selected conference highlights follow; many conference sessions run concurrently.

**April 3**

4-6:30 p.m. 

**Twenty-First Century Club**

Reception and dedication ceremony for a Pennsylvania State Historical Marker in honor of the late K. Leroy Irvis (LAW ’54), legendary Pennsylvania legislative leader, Pitt Law School alumus, and Pitt emeritus trustee. Irvis, who in 1977 became the first African American speaker of the House of Pennsylvania and the first Black speaker of any state house since Reconstruction, sponsored in 1966 the bill that made Pitt a state-related institution of higher education. The marker will be on display, and it will be permanently erected at a later date at the site of Irvis’ first legislative office, on Wylie Avenue in the Hill District.

10-11:30 a.m. 

**William Pitt Union**

“Preserving the Past: Major Collections on African American History in Pittsburgh”

Moderator: Samuel Black, curator of African American Collections, the Senator John Heinz History Center.

Panelists: Michael Dabriskus, Pitt’s assistant university librarian for archives and special collections; Kerin Shellemberger, archivist of the Charles “Teenie” Harris Collection at the Carnegie Museum of Art.

Noon-2 p.m.

WQED’s William Pitt Union Luncheon, with keynote address by Mary Frances Berry, Geraldine R. Segal Professor of American Social Thought and professor of history at the University of Pennsylvania and former chair of the U.S. Commission on Civil Rights.

2-3:00 p.m.

William Pitt Union

“Pittsburgh’s Jazz: An International Legacy”

Moderator: Kenan Foley, instructor, Department of African and African American Studies, Indiana State University

Panelists: Nelson Harrison, trombonist, composer, arranger, adjunct professor of Africana and ethnic studies, Community College of Allegheny County; James Johnson Jr., director, Afro-American Music Institute in Pittsburgh; Hosca Taylor, saxophonist and instructor, Homewood Jazz Workshop.
Women's History Month

The Change Maker

By John Fedele

Paula Davis’ ties to the University of Pittsburgh are deep, both academically and professionally. Not only did she receive her bachelor’s and master’s degrees from Pitt, but she also has worked at the University for all but five of the past 20 years. Her newest responsibility: to ensure that Pitt’s schools of the health sciences keep up with the changing face of the United States.

In an ideal world, that means students, faculty, and trainees in Pitt’s six schools of the health sciences—including the School of Medicine—will reflect the ethnic and cultural diversity of the patients whom they treat in clinics, medical offices, community-based programs, and hospitals across the country.

Pitt is committed to ensuring the face of the health sciences reflects the face of the country, and that regardless of a student’s background, he or she will be prepared to deal with any cultural differences with their patients,” says Davis, who until January was the assistant dean of admissions, financial aid, and diversity in the University’s School of Medicine. Davis made consistent and strong progress in recruiting top underrepresented students: 56 percent of the current medical students are female and 14 percent of this past year’s entering class are from underrepresented groups.

Those successes resulted in Davis being promoted to assistant vice chancellor for diversity for the schools of the health sciences. In her new role, she oversees programs to replicate the medical school’s diversity successes in the other five health sciences schools: dental medicine, nursing, pharmacy, health and rehabilitation sciences, and the Graduate School of Public Health.

Some people might call Davis a change maker. Others might call her “Mom,” mentor, or friend. Throughout her career at Pitt, she has earned a reputation for being a “doer” and a shepherd of sorts—to underrepresented students and others as well—in trying to ease the rough edges of a medical student’s first year and beyond. One of her most recent projects is coordinating Pitt’s role in a pilot program called AspiringDocs.org. Sponsored by the Association of American Medical Colleges, the program seeks to encourage more well-prepared African American, Hispanic/Latinx, and Native American students to pursue careers in medicine. AspiringDocs.org kicked off its outreach program at four universities across the United States, including Pitt.

In announcing Davis’ appointment in January, Arthur S. Levine, dean of the medical school and senior vice chancellor for the health sciences, said “Given Paula’s consistent, outstanding performance in addressing issues of diversity in the School of Medicine and the clear regard our medical students have for her and her team, I have asked Paula to extend her services to the other five health sciences schools. I am certain that, under Ms. Davis’ leadership, all six schools of the health sciences will have success in identifying, attracting, and retaining diverse student and faculty populations.”

Davis’ ties to Pitt go back to the late 1970s. She earned a bachelor’s degree in English writing in 1981 and began working as a counselor and program manager at Pitt while working on a master’s degree in speech, rhythm, and communication. She received her master’s degree in 1985. After a five-year post at Carnegie Mellon University’s H. John Heinz III School of Public Policy and Management, Davis rejoined Pitt in 1994 as a program director in the School of Medicine. She was promoted to assistant dean of student affairs and director of Student Life in 1998 and to assistant dean of student affairs in 2000. In 2004, she was promoted to associate dean of student affairs, a position she held until January 2006.

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Continued on page 5
Pitt Wins Big East Championship

The Pitt women’s basketball team earned its second consecutive appearance in the NCAA Tournament and, as of press time, was heading to Albuquerque, N.M., to play The University of Wyoming on March 22. Photo at right: Pitt senior center Marcedes Walker and Panthers Coach Agnus Berenato. Walker is the Panthers’ all-time leader in rebounds, breaking a 29-year-old Pitt record. Photo inset: Guard Mallorie Winn, senior.
Women’s Team Earns Appearance

Women’s History Month

women a pat on the back or "kids," just as more than refers to the students as her analogy seriously: Davis pointed out.

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American Medical Colleges.

curriculum and was presented at the 2001 national meeting of the Association of American Medical Colleges.

In his comments, Nordenberg also took special note of the interpersonal aspects of her work. It is significant that a medical school student took the time to nominate Ms. Davis," he said. "In his letter, Mr. McCrea (then-third-year medical student Leon McCrea) praised Ms. Davis as an advisor, mentor, friend, and confidant to the minority medical school students. He said that Davis has ‘created a space within the hallowed walls of the medi-

cal school, where it feels like home.’"

That feeling of home, Davis says, is one of the keys to recruitment at Pitt. "We want to set up a situation where we can provide comfortable roots and be as welcoming an institution as possible," she said. "We have stu-

dents coming to the health professions schools—which are rigorous enough in their academic demands and yet leaving behind their undergraduate mentors and family, the people they trust to look out for their well-being. At the same time, they’re inter-

acting with patients for the first time and deciding on a course of study to determine the best fit for their clinical or professional practice.

“That’s a lot of stres-

sors all at the same time," Davis pointed out. "Both she and the stu-

dents take the ‘home’ analogy seriously: Davis refers to the students as her "kids," just as more than one has referred to her as "Mama." "Paula was able to give you a pat on the back or hug and words of support when they were needed," said McCrea, now a resident physi-
cians at the family practice at the Crozer-Keystone Health System in Upland, Pa., south of Philadelphia. "Even more importantly, though, she was comfort-

able letting you know when you weren’t on the right track and to give the tough love that was required."

One of the biggest obstacles Davis faces in getting students to choose Pitt as their new "home" is a financial one.

The Pitt health sciences schools’ rise to international prominence means that they now com-

pete for students with health sciences schools at Harvard, Yale, Stanford, Johns Hopkins, Columbia, and Duke universi-
ties, among others. For the most part, those schools have substantially larger endowments and/or far more state aid than Pitt has.

For medical, dental, and other health sciences students—who can graduate with sub-

stantial debt—stu-

dent aid is crucial and is one of the major factors when a stu-

dent, underrepresented or not, chooses another school. As a result of those financial pressures, a crucial part of Davis’ job is visiting potential donors, includingphilanthropies and alumni.

Frequently, alumni remark about the changes in the health professions schools, all of which have transformed themselves from regional schools to international powerhouses devoted to health professions education and research.

"Some of the alums lament the change," she said. "But most are proud of the changes, as proud as I am to carry the Pitt banner."

Continued from page 1

resource and which has been an important research partner for all three of our universi-
ties for many years."

"Philip President Jared L. Cohn and WVU President Mike Garrison also are members of the board.

Carnegie Mellon Chemical Engineer-

ing Professor Andrew Gellman has been appointed research director for the Center of TB. Under his direc-
tion, the university team will engage in a portfolio of research projects to develop new technologies for fossil fuel utilization, reducing the environmental impact of fossil energy use, and optimizing the efficiency of energy produc-
tion from fossil fuel sources. The combined capabilities and resources of the three universi-
ties and NETL create an energy research enterprise with unique capabilities and breadth of scope, Gellman said.

Pennsylvania and West Virginia hold millions of tons of coal, a fuel that can meet the country’s energy needs far into the future. Policymakers are calling on the region and the nation to use more of its plentiful coal reserves to increase the nation’s energy security. Scientists can advance research into better ways to use coal and convert it into cleaner-burning fuels, Gellman said.

"We need to develop improved turbine

generators and new fuel cell technologies that use coal-derived synthetic fuels, along with new ways to capture and store green-

house gases and releasing them into the at-

mosphere," Gellman said.

The National Energy Technology Laboratory is encouraged and proud to work with researchers from Carnegie Mellon University, the University of Pittsburgh, and West Virginia University," said NETL Direc-
tor Carl Bauer. "By advancing research in the region and the nation, this collaboration will provide clean, affordable energy for many generations of Americans and help secure national energy security."

The consortium will address these needs by focusing its research within eight program areas:

• Materials for energy technologies;

• Process and dynamic systems modeling;

• Catalyst and reactor development;

• Clean energy systems and diagnostics;

• Energy conversion devices;

• Gas hydrates; and

• Ultradeep and unconventional oil and gas production technology.

Pitt Gets $11.4 Million From Gates Foundation To Research Tuberculosis Treatments

Pitt, Carnegie Mellon, WVU Consortium Receives Funding for Fossil Energy Research

Continued from page 1

because the germs that cause the infection hide from the immune system in small tissue nodules called granulomas, making the infection to reactivate years, and even decades, later. Although for the most part TB is a curable disease, patients must adhere to treatment long after symptoms have faded. This proves challenging in many regions of the world where medication is not readily accessible. Indeed, an inadequate or incomplete course of treatment is the major factor that causes drug-resistant TB strains to develop. These strains are alarmingly high in many countries around the world.

"Current medications for TB were developed more than three decades ago," Flynn said. "To create significantly shorter and simplified approaches to treatment, we must improve our understanding of this disease and the antibiotic drugs that are localized at the site of infection."

To understand more about the basic biology of TB and their colleagues are using the grant to develop positron emission tomography (PET) and computed tomography (CT) imaging studies in non-

human primates. By using combined PET/ CT, the researchers will be able to follow the progression of the disease in animals over time and analyze changes in tissue and

responses to particular drugs. They

will be using three imaging technolo-
gies—radiocunelides, fluorescence, and mass spectrometry—in combina-
tion to develop imaging probes and techniques to precisely locate bacteria associated with TB and to explore the underlying factors responsible for slow drug metabolism.

"By applying the tools of modern medicine to TB, we hope to lay the groundwork for real-time measure-
ments of TB drug efficacy in clinical trials and develop new targeted therapeu-

tics, among others.

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• Ultradeep and unconventional oil and gas production technology.

Tuberculosis is a bacterial dis-

ease usually affecting the lungs. Called pulmonary TB, the disease is characterized by a persistent cough, shortness of breath, weight loss, and chest pain. Left untreated, one person with active pulmonary TB will infect on average between 10 and 15 other people every year. The bacteria associated with the disease also can infect nearly any part of the body, such as the lymph nodes, the spine, or bones. TB is deadly if left untreated.

Other co-investigators on the grant include researchers from the National Insti-
tute of Allergy and Infectious Diseases, Vanderbilt University, Cornell University, The Scripps Research Institute, Oxford University, and Novartis Institute of Tropi-
cal Diseases.

The Center for Vaccine Research (CVR) at the University of Pittsburgh houses both the Regional Biocontainment Labora-
tory and the Vaccine Research Laboratory. Researchers such as Ronald S. Burke, dean of the University of Pitts-
burgh Graduate School of Public Health and UPMC Jonas Salk Professor of Global Health, develop new methods and strategies to prevent and treat infectious diseases, potentially improving and protecting global health.
German Cinema on the Edge
Film Series to Begin March 28

By Anthony M. Moore

The University of Pittsburgh's Department of Germanic Languages and Literatures will present the film series German Cinema on the Edge on March 28 and 29 and April 4 and 5. All screenings will be held at 7 p.m. in the Bellefield Hall auditorium.

The series will feature five recent German films, among them Rhythm Is It, which won the 2005 Bavarian Film Award for Best Documentary. Screenings are free and open to the public, and all films have English subtitles.

Synopsis: Kebab Connection humorously explores the contemporary clash of cultures and generations. This film follows the life of Ibo, a young Turkish man aspiring filmmaker, who has just shot his first film—a commercial for his uncle's fast-food restaurant. His uncle is unimpressed by the use of nujis to sell kebab. Ibo also has just found out that his girlfriend is pregnant. He struggles with his own doubts about impending fatherhood and his family's disappointment—until the customers start streaming in.

March 28—Rhythm Is It (2004), 104 minutes, directed by Anno Saul.

Synopsis: This documentary records the first big educational project of the Berlin Philharmonic Orchestra under Sir Simon Rattle. The film features 250 underprivileged German students as they train to dance at Stravinsky's The Rite of Spring with the world-renowned orchestra. Seen through the eyes of three proto-agonists, Rhythm Is It follows the teenagers' perseverance during three months of rehearsals and the development of a professional performance.

April 4—Five Minutes [Four Minutes] (2006), 112 minutes, directed by Chris Kraus.

Synopsis: This film follows Traude, a piano teacher, who has been giving piano lessons in a women's prison for decades. She meets Jenny, a reserved young woman convicted of murder. Jenny, who was raised a child musical prodigy, Traude's attempt to guide her pupil to victory in a music competition leads to a difficult, contradictory relationship between the two women.

April 5—Wohnkomplex [Residential Complex] (2005), 29 minutes, directed by Rita Bakacs.

Synopsis: This film provides a glance into Halle-Neustadt, a city in the former German Democratic Republic, after German reunification. In the midst of urban ruins, mass unemployment, and empty buildings vacated by those who went elsewhere for jobs and a better life, former GDR citizens find themselves living next to asylum seekers from all over the world. The film shows how the city that was once designed as a socialist model town has become a shrinking metropolis.

Yella (2007), 88 minutes, directed by Christian Petzold.

Synopsis: This film follows Yella, who flees her failed marriage and broken dreams to begin again in Hanover. She finds work with a determined young executive and enters a ruthless world of business. Surprisingly helped by her looks, quick wits, and icy demeanor and just when she is poised to realize her ambitions, she finds herself haunted by truths from the past that threaten to destroy her new life.
**Happenings**

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**Concerts**

*Spring College/Community Choir* presents Mozart’s *Requiem* in Belle- de-Dominic and Haydn’s *Missa in Augsburg*, 7:30 p.m. March 26, Blo- mely Family Theater, Pitt-Bridgeford, 814-362-9248, www.ap.pitt.edu.

**Exhibitions**


**Lectures/ Seminars/Readings**

Ed Oehser, *Pitt Poetry Series* editor, informal talk at 3:30 p.m., poetry reading at 7 p.m. both today, campus coffeehouse, Pitt-Greensburg Writers Festival, 724-836-7481, www.pitt.edu.

**Miscellaneous**


**Daniel Handley, Department of Human Genetics, “Systems Approach to Analyzing the TGFbeta/SMAD3 Gene Regulatory Pathway in A549 Cells,” 4 p.m. today, PACC Conference Room, 509, Center for Multifaceted Health.**

**March 28, 7-9 p.m.**


**Pitt PhD Dissertation Defenses**

**March 24, 4 p.m.**


**March 25, 7:30 p.m.**


**April 5, 4 p.m.**

*Astrid Saya,* Department of Environment and Occupational Health, “Nitric Oxide-Mediated Signaling in Human Genetics, “Systems Approach to Analyzing the TGFbeta/SMAD3 Gene Regulatory Pathway in A549 Cells,” 4 p.m. today, PACC Conference Room, 509, Center for Multifaceted Health.**

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Etch A Sketch™ Toy Inspires Pitt Team in Nanotechnology Discovery

New technology may lead to more powerful, compact information technologies

A University of Pittsburgh-led research team developed a process in which the ability to conduct electricity can be turned on and off at nanoscale dimensions. This capability holds promise for more powerful and compact information technologies, including ultrahigh density information storage, reconfigurable logic devices, and quantum computers.

The findings were published online March 2 in *Nature Materials* with the print version scheduled for April.

Led by Jeremy Levy, a professor of physics and astronomy in Pitt’s School of Arts and Sciences, the researchers discovered how to switch, at will, the interface of two readily formed insulating materials from an electrical conductor to an insulator and back. The research’s considerable technological applications stem from this adjustability, Levy said.

The process works like a microscopic Etch A Sketch™, Levy explained, referencing the drawing toy of his youth that inspired his idea. The interface lies between a crystal of strontium titanate and a 1.2 nanometer-thick layer of lanthanum aluminate, both of which are insulators. Using the sharp conducting probe of an atomic-force microscope, the team created wires less than four nanometers wide at the interface of the two materials. These conducting nanostructures can subsequently be erased with a reverse voltage or with light, rendering the interface an insulator once more.

“This work is not only potentially useful for technological applications, but also fascinating from a fundamental perspective,” Levy said. “The prospect of making both logic and memory devices with the same material is very intriguing, and at this small a scale it’s almost unheard of.”

The physical model still needs tested in crucial ways, but provides an important framework for future research directions, Levy said.

The idea originated from a visit Levy made to the University of Augsburg in Germany, where coauthors Jochen Mannhart and his student Stefan Thiel showed Levy how the entire interface could be switched between a conducting and insulating state. Levy thought of adapting the process to nanoscale dimensions, and his student Cheng Cen, the paper’s first author, brought the idea to fruition. Research by C. Stephen Hellberg from the Naval Research Laboratory contributed to the theoretical understanding of the project. The work was supported by the Defense Advanced Research Projects Agency and the National Science Foundation.

Levy has worked in the field of oxide electronics for the last decade and has been recognized by Pitt with the Chancellor’s Distinguished Teaching Award in 2007 and the Chancellor’s Distinguished Research Award in 2004.

“The prospect of making both logic and memory devices with the same material is very intriguing, and at this small a scale it’s almost unheard of.”

—Jeremy Levy