It blows me away, the impact Vivien Thomas had on medicine. That was the beginning of heart surgery — Dr. Arnold Strauss, James C. Oxall Professor of Pediatrics and chair of the department

“Partners of the Heart”

PBS Documentary Celebrates Historic Partnership

The PBS series “American Experience” recently aired a documentary about a medical and social odyssey that began at Vanderbilt in 1930. “Partners of the Heart,” which was broadcast Feb. 10, explores the life of pioneering surgeon Alfred Thomas, an African-American member of Vanderbilt’s faculty, and his assistant Vivien Thomas, an African-American man who remained in the physician’s shadow during a 40-year career.

At Vanderbilt the two men led to a new understanding of shock, explaining that massive blood loss led to the condition. Thomas followed Blalock to Johns Hopkins University where Thomas invented and refined, for Blalock, the first surgical technique to alleviate the congenital heart commonly known as blue baby syndrome. Their discoveries saved the lives of thousands of young children.

Written, directed and produced by film maker Andrea Kalin and narrated by actor Morgan Freeman, the documentary includes an interview with Dr. Levi Watkins, MD’70. Vanderbilt was among a dozen institutions and community programs which hosted screenings of the film. Vanderbilt’s Feb. 3 screening was followed by a discussion on medical history, race relations and filmmaking.

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The Class of 2006 represents this year’s freshman class is the highest yield in the University’s history. Fifty-two percent of the class is female. The University’s history. Fifty-two percent of the class is female. The class hails from Tennessee, approximately two-thirds of the students indicating race, 19.96 percent are traditional minorities—the highest percentage in the University’s history. Fifty-two percent of the class is female. The 10-Day Report indicates that 20.9 percent of the freshman class is from the Northeast, “by far the most we’ve had from the Northeast,” Shain says. Approximately 14 percent of the freshman class hails from Tennessee.

Genocide: Book Helps Students Ask Why

A team of university scholars and high school teachers has written the first book to systematically tie teaching high school students about the Nazi genocide of Jews to an analysis of recent genocides in Armenia, Bosnia, Kosovo and Rwanda.

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The Class of 2006 represents the lowest admissions rate and highest yield in the University’s history, both of which have improved each year since 1997. Shain attributes this trend to the quality of students seeking admission. “This year the average applicant had SATs over 1300. Six years ago it was 1276.” A total of 1,578 undergraduates were enrolled as of the 10-Day Report, a common standard for enrollment figures tallied near the beginning of the fall semester.

This year 400 fewer undergraduate applicants had SAT scores below 1250, and 774 more applicants had scores above 1250. “Our increased selectivity appears to be scaring off the weaker candidates,” Shain says.

Of the students indicating race, 19.96 percent are traditionally underrepresented minorities—the highest percentage in the University’s history. Fifty-two percent of the class is female. The 10-Day Report indicates that 20.9 percent of the freshman class is from the Northeast, “by far the most we’ve had from the Northeast,” Shain says. Approximately 14 percent of the freshman class hails from Tennessee.

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Robert Penn Warren Center for the Humanities and the Tennessee Holocaust Commission are distributing free of charge copies of The Holocaust and Other Genocides: History, Representation, Ethics to every public and private high school in Tennessee. The Holocaust Commission and the book’s publisher, Vanderbilt University Press, are also working to get word of the book and an interdisciplinary curriculum guide out to schools and Holocaust organizations nationwide.

“Entire ethnic groups continue to be targeted and killed by governments around the world,” says Ruth Tanner, executive director of the Tennessee Holocaust Commission, which helped fund the project. “We hope this material will cause students to become more aware of how small sacrifices of freedom made in the name of safety can dampen our capacity for compassion and lead to tragedies of enormous magnitude.”

The book incorporates personal stories, newspaper articles, photographs, poetry and other materials. The curriculum can be taught in a variety of classes such as English, history, civics or religious studies.

Stem Cell Clinic to Reduce Patients’ Hospital Stay

A new Stem Cell Transplant Clinic that opened at Vanderbilt University Medical Center in December will offer blood stem cell transplantation for adults on a largely outpatient basis. Transplantation involves chemotherapy followed by infusion of blood stem cells and intensive management of side effects.

Vanderbilt stem cell transplant patients currently undergo a hospital stay of three to four weeks. At the new clinic, located on the second floor of The Vanderbilt Clinic, admission will be reduced to three to five days with patients undergoing daily evaluation.

“The move to the outpatient setting will result in significant savings,” notes Dr. Friedrich G. Schuening, chief of hematology and director of stem cell transplantation.

Blood stem cells make red blood cells, white blood cells, and platelets. Transplantation is used to treat leukemia, lymphoma, aplastic anemia, inherited disorders and many other diseases. Patients often act as their own donors, undergoing chemotherapy before the reintroduction of their previously collected stem cells. In other cases stem cells are gathered from a donor whose tissue type matches the patient’s. Stem cell self-donors face less risk of infection. Vanderbilt transplant hematologists will begin by offering the outpatient procedure for self-donor patients with multiple myeloma, Hodgkin’s lymphoma or non-Hodgkin’s lymphoma. These diseases, accounting for approximately two-thirds of the adult stem cell transplants at Vanderbilt, tend to respond well to transplantation.

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Nicotine Replacement May Harm Fetuses

Nicotine replacement is often regarded as a safe alternative for pregnant women. But an animal study conducted by Hakan Sundell, professor of pediatrics, and colleagues suggests that it can have lasting harmful effects on developing fetal lungs.

For a five-week period after lambs were born, lung-function tests showed the animals exposed to nicotine in the womb had faster and more shallow breathing. “Prenatal nicotine exposure appears to have long-term effects on the postnatal breathing pattern,” Sundell and colleagues write in the American Journal of Respiratory and Critical Care Medicine.

Attention: The Glue That Binds

When you gaze at a bowl of fruit, why don’t some of the bananas look red, some of the apples look purple, and some of the grapes look yellow?

When your brain processes information coming from your eyes, it stores information about an object’s shape in one place and information about color in another. Exactly how the brain recombines different types of visual information after it has broken them apart is the subject of controversy in the neuroscience community. The results of a new brain-mapping experiment published in the Aug. 8, 2002, issue of The Proceedings of the National Academy of Sciences provide support for the theory that attention is the glue that cements visual information together as people scan complex visual scenes.

The study was done by René Marois, assistant professor of psychology; John C. Gore, Chancellor’s University Professor; and Yale graduate student Keith M. Shafritz. Ellen Fanning is one of 20 research scientists nationwide who will each receive $1 million over the next four years from the Howard Hughes Medical Institute for a new program intended to encourage researchers to put as much creativity into undergraduate education as they have into research.

Only half of undergraduate students who express interest in science and engineering careers as freshmen go on to get degrees in those fields, Fanning, who is Stevenson Professor of Molecular Biology and chair of the department, is convinced it is partly because of the way they are taught.

“Learning about science through lectures and cookbook labs doesn’t give students a good idea of what science is really like,” she says. She intends to use the grant to build what she calls a “community of scholars” that will give participating undergraduates hands-on research experience. “Much of what goes on in the lab is the interaction between different kinds of people with different kinds of skills. So we are trying to create something like an apprenticeship relationship between the students and faculty members, which is very hard to find in the undergraduate setting,” Fanning will select 10 to 12 highly motivated freshmen each spring who are interested in the subject of DNA replication, giving them opportunities as they progress in their studies to work as full-time research interns and undergraduate research fellows.

Biologist Creates “Community of Scholars” for Undergraduate Scientists

Molecular biologist Ellen Fanning is one of 20 research scientists nationwide who will each receive $1 million

Vanderbilt hematologists will start by admitting patients to the 11 North myelosuppression unit for four to six days to receive chemotherapy and stem cell infusion. Patients will be discharged to the new clinic on the day after stem cell infusion, and will receive daily outpatient evaluation for two to three weeks following discharge. Once the program is fully operational, patients may start the procedure in the clinic and be admitted to the myelosuppression unit for only a few days.

Naked Stars Tantalize Astrophysicists

How many stars like the sun are circled by planets? Today astronomers think they may be quite rare. Observations of stars that resemble the sun when it was young indicate that stars lose the disk of dust and gas that surrounds them at birth before there is time for planets to form. But David Weintraub, associate professor of astronomy, and graduate student Jeff Bary argue that material surrounding these stars may be evolving in ways that makes it invisible to Earth’s telescopes. If they are right, planetary systems similar to ours may be relatively commonplace.

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Ellen Fanning (center) and students

Robotic Bugs

Michael Goldfarb, associate professor of mechanical engineering, demonstrates a robotic bug that can scout more than half a mile on a single battery charge. Goldfarb leads a Vanderbilt group that is working on robotic technology as part of a program funded by the Defense Advanced Research Projects Agency (DARPA) exploring the use of mobile micro-robots for military reconnaissance and intelligence gathering. Soldiers could carry large numbers of these mechanical scouts to investigate the terrain ahead, detecting minefields and other hazards. The Vanderbilt group has concentrated on issues of locomotion.

Howard Hughes Medical Institution awarded a grant to build what she calls the “community of scholars” that
Residence Hall Name Change
at Center of Controversy

After years of sometimes-rancorous public debate over its name, the residence hall known since its 1935 construction by Peabody College as Confederate Memorial Hall has been renamed Memorial Hall. According to a statement issued by Vanderbilt administration in September, the change is intended to help create “a positive, inclusive environment, and to ensure that our facilities and symbols do not inadvertently reflect values that are inconsistent with the University’s mission.”

The new name is intended to honor all those who have lost their lives in America’s armed conflicts.

Confederate Memorial Hall was constructed on the campus of the formerly independent George Peabody College for Teachers to provide housing for young women of “Confederate descent” who were studying to become teachers. At the time, the United Daughters of the Confederacy in memory of their fathers and brothers who fought in the war between the North and South 1861–65. Dedicated to the education of teachers for a region sorely in need of them. Renovated by Vanderbilt University in 1988 for continued service to all students. 1899.

Center to Focus on Terrorism, Emergency Preparedness

Creating new tools to fight terrorism and help communities better prepare for large-scale disasters will be the focus of a National Center for Emergency Preparedness, established in December at Vanderbilt University Medical Center. The NCEP is the brainchild of Colleen Conway-Welch, dean of the School of Nursing.

“The Center will develop, implement and evaluate technological capabilities, and create an interdisciplinary approach to disasters by involving all aspects of health care and emergency response personnel,” says Conway-Welch.

VUSN is a founding member and managing institution of the National Health Professions Preparedness Consortium, and assisted in the development of a comprehensive five-year strategic plan for the U.S. Public Health Service.

Stephen L. Gillott Jr. will direct the NCEP. He also serves as executive director of the National Health Professionals Preparedness Consortium. “We will focus on the more than 12 million emergency responders throughout the nation to develop bioterroism and natural disaster techniques and equipment.”

Guillot, when fully staffed, adds Guillot, the NCEP could have as many as 25 full-time employees, including experts with diverse backgrounds in medicine, public health, law enforcement and emergency response.

http://exploration.vanderbilt.edu

Exploration, Vanderbilt’s online research magazine, captures the power of multimedia to explain the basic nature of research. It has been named one of Exploratorium’s Ten Cool Sites for Educational Excellence and has been selected as a feature site by StudyWeb, an online service for educational materials.

Catch up on the latest research, read student lab diaries, find out about developments in Washington of interest to the higher-ed community, and much more.