Pediatric anesthesia

Drugs used in surgery may cause long-term problems

By Joe DiVitto

A team of researchers from the School of Medicine and the University of Virginia Health System has found that drugs commonly used to anesthetize children can cause brain damage and long-term learning and memory disturbances in infant rats.

The researchers reported their findings in the Feb. 1 issue of the Journal of Neuroscience. "We frequently perform surgical procedures on children, including premature infants, and those procedures have become increasingly more complex and take longer to perform," said the study's lead author, Vesna Jevtovic-Todorovic, M.D., associate professor of anesthesiology at the University of Virginia Health System. "That means many pediatric patients are being exposed to anesthetic drugs more frequently and for longer periods of time. Our results would suggest that might be problematic."

Previously, Jevtovic-Todorovic was at the School of Medicine, where the rest of the research team is located. The investigators anesthetized 7-day-old rats with a combination of three drugs — midazolam, nitrous oxide and isoflurane — used in pediatric surgery.

As the animals recovered from the anesthesia, the researchers divided them into three groups: One group was sacrificed the next day and their brains examined, a second group grew to about a month old and a third group grew into adulthood. The latter two groups were tested for effects of anesthesia on learning and memory.

Members of the research team also recorded electrical activity in the hippocampus, a brain structure known to be important in learning and memory.

In this infant rats were anesthetized during the brain growth spurt period called synaptogenesis, which lasts for the first few weeks of life in rats, but in humans it extends for about 2 years and is followed by a trimester of pregnancy that ends about the age of 5. Six senior investigator John W. Olney, M.D., the John P. McGraw Professor of Neuro-psychopharmacology. "During this period, nerve cells in the brain make connections with one another and form their network. But if something interferes with that process, the cells are programmed to die of themselves."

In this study, the team found moderately severe cell death had occurred in the hippocampus but not some other regions in every brain examined. This included brain regions involved in learning and memory, such as the hippocampus.

See Pediatric, Page 6

Berndell Dorrrough (right), editor in chief of Student Life and sophomore Brett Friedman put the finishing touches on a recent issue at the paper's office in the Women's Building.

"Student Life serves two very important roles on this campus," said Berndell Dorrrough, editor in chief. "First, it teaches students about journalism. We don't have a jour-

nalism program here, but even so, I feel prepared to enter the work force and seek a career in the newspaper business thanks to my work with Student Life."

"Second, the paper provides great news, sports and entertainment coverage for the campus, as well as a forum for discussing ideas and presenting views."
Gaddis papers acquired by University

University Libraries has acquired the literary legacy of National Book Award-winning writer William Gaddis (1929-1994). Gaddis' papers will become a part of the University's Modern Literature Collection, which includes the papers of more than 150 prominent 20th-century writers.

The Gaddis acquisition was made possible in part by a grant from the Lannan Foundation, which is dedicated to preserving the creativity of diverse cultures.

Gaddis wrote and published the novels The Big Money (1955), J.R (1975), Carpenter's Gaddis (1985) and A Frolic of His Own (1994). He had several connections to the University, where he served as a Hurst Professor in 1979 and formed lasting friendships with esteemed writers such as William H. Gass, Ph.D., the David May Distinguished Professor Emeritus in the Humanities, and the late Stanley Elkin.

The Gaddis papers will join the literary estates of Gass and Elkin in the Modern Literature Collection, which also holds the papers of University alumni Howard Nemerov, Samuel Beckett and Morton Dauwen.

"When Bill Gass approached us and said that Washington University was interested in acquiring our father's archive, that was that," said Gaddis' daughter Sarah Gaddis. "We were most gratified that this would have been our father's choice. We had not spoken to anyone at the university, and there was no need to look further."

Gass said, "With the acquisition of the papers and manuscripts of William Gaddis, the Washington University Libraries has added to its Special Collections Fundamental source material for the work of one of the most influential and innovative American novelists of our time — a true enrichment of our materials that one individual — a genius — used when he was living and that we can now use for teaching and research.

The Gaddis papers span 70 years, beginning with letters and drawings created by Gaddis as a youth in boarding school. Gaddis' archive is extensive, it is open to the public on reasonably clear Monday through Friday evenings from 7-10 p.m. during the school year. Call 935-6278 to find out if the observatory is open.

The telescope housed in the Hilltop Campus observatory, pictured here in the 1950s, in Crow and Clark, two of the most important American telescope-makers of the 19th century, the Smithsonian Institution has acquired an interest in the Archibald refractor. However, no plans exist for its reproduction as a historic instrument. During the late 19th century, the observatory was located on the roof of a building and on Charles streets in downtown St. Louis and served as a source of standard time for the region. The observatory is now open to the public on reasonably clear Monday through Friday evenings from 7-10 p.m. during the school year. Call 935-6278 to find out if the observatory is open.

Washington University will be celebrating its 150th anniversary in 2003-04.

Special projects and events will be announced as the yearlong observance approaches.

Margulis has recorded four CDs as well as numerous concerts for radio as a soloist, in chamber music and with orchestras. He performed a live broadcast on the legendary Horowitz Steiner and recorded Schubert's Piano Sonata Op. 20 with the Baden-Baden Radio Symphony Orchestra. For more information about the Edison Theatre performance, call 935-6543. For more information about the master class, call 935-7404.
Antibodies critical in fighting West Nile

By Darrell E. Ward

School of Medicine researchers have found that antibodies produced by B cells are critical in fighting the West Nile virus. The results are published in the February issue of the Journal of the American Medical Association.

Mice that lacked B cells and antibodies were completely unable to combat the virus. They developed severe brain and spinal cord infections and ultimately died.

"These findings may help explain why the elderly and others with weakened immunity are most likely to develop serious disease when infected with the virus," said study leader Michael S. Diamond, M.D., Ph.D., assistant professor of medicine, of molecular microbiology and of pathology and immunology.

West Nile virus was accidentally spread into the eastern United States in 1999 by infected birds that were brought into the country. The virus has spread steadily westward, reaching the West Coast last year. It is carried by mosquitoes and causes encephalitis, a brain inflammation. The virus affects multisited B cells, especially cells in the bone marrow and human organs and animals.

In humans, West Nile virus causes serious illness in only a small proportion of infected people. Last year, doctors reported around one person in 100 with West Nile virus became seriously ill or died. Diamond and his colleagues infected a strain of immune-deficient mice with West Nile virus and found that 60 percent of those resulting in serious illness or death.

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The immune-deficient mice became sick and died even with low doses of the virus. However, they could resist infection with a dose of B cells after being infected with the virus.

"We were surprised by how susceptible the mice were when antibodies were missing," Diamond said. "Just one viral particle — an exceedingly low dose — was enough to kill the mice."

To confirm the importance of B cells and antibodies in defending against West Nile virus, the researchers then gave the virus to a group of immune-deficient mice that lacked only B cells and antibodies, again comparing their response to mice with normal immunity.

After two, both the B-cell deficient mice and normal mice had equal levels of the virus in the blood. The levels declined thereafter in the normal mice and were undetectable by day six. In the B-cell deficient mice, however, viral levels continued to increase, with 500-fold higher levels by day four.

In the antibody deficient mice, the virus was completely undetectable. These results indicate that antibodies are essential for controlling the infection.

"Our findings suggest — but this is just speculation — that humans who have weak antibody responses could be at greater risk for illness," Diamond said. "These are the people we're going to target when a vaccine or treatment is available."

Diamond and his colleagues are now studying how antibodies control infection and what other parts of the immune system are involved.

Samuel R. Goldstein leadership awards announced

By Kimberly Leving

The Samuel R. Goldstein Leadership Awards in Medical Student Education, which recognize faculty members who have made outstanding contributions to medical education, were announced recently.

The 2002 recipients of the award are: Dana R. Abendschein, Ph.D., assistant professor of medicine, of pediatrics and core director of hereditary cancer at the Alvin J. Siteman Cancer Center at the School of Medicine and Barnes-Jewish Hospital; received a special recognition award.

The leadership awards were established in memory of Goldstein, a longtime friend of the medical school. The recipients were selected by faculty peers after a formal nomination process.

"The selection represents among the highest honor in teaching awards at the School of Medicine," said William A. Pech, M.D., executive vice chancellor and dean of the medical school. "I hope everyone will join me in congratulating award recipients for their outstanding dedication to the education of our medical students."

Linezolid is better treatment for resistant pneumonia

By Gila Z. Reckess

A drug called linezolid is more effective at treating a deadly form of pneumonia than the standard treatment, vancomycin, according to School of Medicine researchers.

These results are based on data from two identical phase III clinical trials comparing linezolid to vancomycin in the treatment of pneumonia cases that develop in the hospital.

"Doctors need to recognize that the antibiotics they select can impact whether a patient lives or dies," said Martin H. Kollef, M.D., Lacy Professor of pathology and the Paul E. Lacy and Ellen Barnes-Jewish Hospital, received a special recognition award.

The team identified a protein called angiotensin (Ang), which belongs to a class of proteins originally believed to be involved in the development of blood vessels and connective tissues. The group discovered that Ang was released by specific cells, called Paneth cells, located in the intestinal lining.

"Peach Paneth cells are known to produce the immune system in defending against infection, the team examined Ang to determine how it interacts with a variety of different microbes. They found that the protein killed certain kinds of gut microbes and concluded that Ang may be part of an arsenal of microbial products deployed by Paneth cells to help keep gut bacteria from getting too close to the intestinal lining, where they could cause damage or trigger an overreaction."

Moreover, researchers were surprised to find that production of the Ang is controlled by a bacterium that makes its home in the intestine, called Bacteroides thetaiotaomicron, a prominent member of the mouse and human gut microbial community. This makes Ang unique, as it is the first example of a protein antibiotic whose expression is controlled by friendly intestinal bacteria.

"Robert Frost said it best: 'Good fences make good neighbors.' Hooper said, 'Apparently, one of the functions of normal gut bacteria is to create a 'electric fence' that protects the intestinal milieu from microbes we encounter throughout our lives.'

The group also discovered that other mouse and human angiogens, which are produced in other organs, also are able to combat dangerous microorganisms.

"These findings support the notion that the angiogenin family of proteins may represent a critical component of the body's innate defense system," Gordon said.
The goal of PNHP is to educate physicians, as well as the general public, on the need for a high-quality, publicly funded health program that includes the removal of all barriers to adequate health care currently faced by the poor. For more information on Woolhandler, please visit www.CafeteriaMedicine.org.

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**Student Life**

From Page 1

"Be sure to be present! When working with such a dedicated group of people, we all work hard and do what we think it takes to make this a success."

In addition to the paper's 125th anniversary issue, which was released on January 13th, Student Life will host an alumni reunion on Sept. 12-14.

**Sports**

Friday, Feb. 14

4 p.m. Women's Basketball vs. Emory University Athletic Complex, 405-4705.

8 p.m. Men's Basketball vs. Emory University Athletic Complex, 405-4705.

Sunday, Feb. 16

4 p.m. Women's Basketball vs. Case Western Reserve University Athletic Complex, 405-4705.

9 p.m. Men's Basketball vs. Case Western Reserve University Athletic Complex, 405-4705.

**And more...**

Friday, Feb. 7

7 p.m. Gallery of Art Guided Tours. Tours depart from the Gallery lobby, sponsored by the Office of Art and Art History. Art, Galleries, and Museums in France Art Foundation, 466-4000.

Saturday, Feb. 8

3 p.m. Renaissance-Esperanto Enthusiasts, Inc. in Renaissance-Esperanto. Cloyer, 175-0910.

Saturday, Feb. 13

7 p.m. Writing Program Reading Series. Reading to be announced. Student Life, 362-6298.

Monday, Feb. 17

6 p.m. Writing Program Reading Series. Reading to be announced. Student Life, 362-6298.

Tuesday, Feb. 10


3 p.m. Students in Higher Education Development Seminar. "You Can Do It Too!" 5:16 Plaza, 2nd floor, St. Louis Catholic University Education Center, 935-4908.

4:30 p.m. Earth & Planetary Science

**Music**

Sunday, Feb. 9


2 p.m. Concert. "Women's Basketball," Women's Basketball. 935-4908.

**On Stage**

Friday, Feb. 7

7 p.m. Performing Arts Department presents "American Road Trip," WUSTL Student Union Theatre, 935-4908.

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Engineers — from Page 1

Seventeen girls were the program’s first students. The program was publicized on the cover of the Columbia Spectator (CGR) Learning Lab flier. The program’s goal was to educate girls about engineering and help them understand the coordination responsibilities. One of the girls who was involved in the program was a girl named Sarah, who was interested in becoming an engineer. She worked on a project with engineers and learned about the field of engineering.

"Women in Engineering Day" — from Page 1

The Society of Women in Engineering (SWE) at Washington University in St. Louis held its annual "Women in Engineering Day" Feb. 8, according to Annica Carey, president of the society.

"Women in Engineering Day" was established to increase interest in the field of engineering, and to show girls that engineering can be an option for them.

"Unless a student has a relative who's interested in engineering or has met a woman engineer, it is not uncommon to see faculty members as real females, rather than professors," said Shelly Sakiyama-Elbert, Ph.D., chair of Washington University’s Department of Civil and Environmental Engineering and director of the university’s Gifted Resource Center.

"Women in Engineering Day" was founded in 1997 with six associates and students, said Jill Stratton, warning coordinator.

"As a female student who was the first in my family to go to college, I'm aware of the experience of being the only girl in a classroom, and we are trying to make students feel more comfortable with the faculty as a resource — not only for their classroom knowledge, but their knowledge outside as well," she said.

The event was open to all students, regardless of gender.

"I've truly enjoyed the advis-ory relationship with Professor Cytron," said J.C. Marcus, a Ph.D. student in the program. "I feel as though we have many different interests outside of the classroom, and we are trying to make students feel more comfortable with the faculty as a resource — not only for their classroom knowledge, but their knowledge outside as well," she said.

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Saulo Klahr, M.D., the John E. and Adeline Simon Professor of Medicine and professor of radiology, and physician-in-chief of The Children's Hospital-Clinic of Pennsylvania from 1996-2003, died at age 79 on November 23, 2003. He is survived by his wife, Judith Klahr, and three children.

Klahr was born on December 15, 1923 in New York City to Max and Selma Klahr. He received a B.A. from the University of Chicago in 1944 and an M.D. from the University of Pennsylvania in 1948. After completing residency training in radiology at the University of Pennsylvania from 1948-1951, Dr. Klahr came to the Children's Hospital-Clinic of Pennsylvania in 1951, initially as a resident in radiology. He was named director of the Children's Hospital-Clinic of Pennsylvania Radiology Department in 1954 and a professor of radiology in 1966. Dr. Klahr was named physician-in-chief in 1996 and served as Chief Executive Officer of Children's Hospital of Philadelphia and University of Pennsylvania Health System until 2003. He was named Distinguished University Professor of Radiology in 2001.

Klahr was known as a pioneer in the field of pediatrics and radiology. He was a consultant to the National Cancer Institute and the National Institute of Child Health and Human Development. He was a member of the American Society of Clinical Oncology and the American Society for Human Genetics. He was a Fellow of the American College of Radiology and the American Society of Clinical Oncology.

Dr. Klahr was a dedicated and respected radiologist who was known for his dedication to his patients and his commitment to the field of radiology. He was a mentor to many of the radiologists at the Children's Hospital-Clinic of Pennsylvania and was a leader in the field of pediatric radiology. He was a strong advocate for the use of diagnostic imaging in the treatment of pediatric cancers and was a leader in the development of new imaging techniques.

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In addition to his work in radiology, Dr. Klahr was a dedicated and respected radiologist who was known for his dedication to his patients and his commitment to the field of radiology. He was a mentor to many of the radiologists at the Children's Hospital-Clinic of Pennsylvania and was a leader in the field of pediatric radiology. He was a strong advocate for the use of diagnostic imaging in the treatment of pediatric cancers and was a leader in the development of new imaging techniques.

Relay for Life raises funds to fight cancer

Relay for Life is an annual event that brings together communities across the country to raise funds for the American Cancer Society. The event is held on a Friday night and Saturday morning and is a 24-hour relay race. Teams of 8-12 people register, and each team member commits to walk or jog a lap around a track or a predetermined route, either individually or in a team. The relay continues for 24 hours, with participants taking shifts to run or walk the laps.

The event is a fun and rewarding way to support the fight against cancer. Participants enjoy music, food, and activities while supporting a good cause. The money raised goes directly to support cancer research, education, and support services for cancer patients and their families.

In addition to the relay race, Relay for Life events often feature live music, food, and activities. The event creates a sense of camaraderie and support among participants, and it raises awareness about the importance of cancer prevention and treatment. Relay for Life is a powerful reminder that we can all work together to fight cancer and make a difference in our communities.

The main event of Relay for Life is the 24-hour relay race. Teams of 8-12 members commit to walk or run a lap around a track or predetermined route, either individually or in a team. The relay continues for 24 hours, with participants taking shifts to run or walk the laps.

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Travel to the Philippines and learn about the culture

Travel to the Philippines is a great way to learn about the rich culture and history of this beautiful country. The Philippines is located in the Southeast Asian region, occupying the western third of the island of Luzon, one of the islands of the South China Sea, and part of the Philippine archipelago.

The Philippines is known for its diverse culture, with influences from the indigenous and foreign cultures. The country is home to the world-renowned Tagalog, Filipino, and Cebuano languages, and it has a rich tradition of folk music and dance. The Philippines is also known for its unique cuisine, with a blend of flavors that are influenced by the country's history and geography.

In addition to its cultural attractions, the Philippines is also known for its stunning natural beauty. The country is home to some of the world's most beautiful beaches, including those on the island of Boracay, which is known for its white sand and crystal-clear waters.

In summary, travel to the Philippines is a great way to learn about the rich culture and history of this beautiful country. The Philippines is known for its diverse culture, with influences from the indigenous and foreign cultures. The country is home to the world-renowned Tagalog, Filipino, and Cebuano languages, and it has a rich tradition of folk music and dance. The Philippines is also known for its unique cuisine, with a blend of flavors that are influenced by the country's history and geography.
Welcome to the Fun Zone.
OK, if you want to get technical, it's officially known as the Office of Undergraduate Admissions—Room 130 in South Brookings Hall. But with Delise LePool sitting behind the front desk, the fun never stops.

If she's not embracing you in a famous group hug, she'll call the biology room, she calls the biology room. She's often one of the first people the University makes her an essential staff member.

of humor, outgoing personality and commitment to the University. The University started working at facilities operations as a telephone answering service for the cleaning crew in the Field House. She had earned her degree in Business Administration and Management, which LePool applied for and received. It was the time that she had a theory about the University and its people started. She had a handle on picking up my— and everyone else's— spirits, inspiring me to raise my level of attitude. I am not sure I have always known what that meant.

"One day I walked into admissions and saw her sitting at her desk. She had earned her University degree while working two jobs— those if you count the phony ones. I was humbled and even firmer this time, and at the same time, a response many of us have to Delise in her presence."

so much that so coaches take prospective student-athletes to meet LePool, or parents come by to talk and hang out, or students bring their friends to meet LePool. Such is the impact and influence her personality has on people.

In (the admissions office), "We welcome the community; and enhance the positive working and learning environment; help create a climate that is a big, big thrill. That's okay, baby, they love me over there. In the same breath, she introduces a female prospective art student from Memphis, Tenn., to her favorite football player. And while doing so, she makes everyone feel special.

Because Delise loves people, especially students. And to treat them any differently would be a disservice to both the students and to her."

"Then I'm sitting there and as I looked at her, I thought, 'That's okay, baby, they love me over there.'" She would say, "If she's not embracing you in a famous group hug, she'll call the biology room. She's often one of the first people the University makes her an essential staff member."

"I love the face that Delise is the heart and soul of the admissions office," Chancellor Mark S. Wrighton says. "From what I can tell, they're not exaggerating. Her great sense of humor, outgoing personality and commitment to the University is an essential member of our community. She has reached and influenced the lives of many people on this campus."

It's the students, though, who have a special place in her heart. She is often one of the first people prospective students meet when visiting the University, and as such, she takes her responsibilities seriously— whether it's a student in the Class of 2006 or a fourth-year senior preparing for law school. Even after being given just over Christmas break, she came back in a rush to say hello to LePool and participate in her favorite group hug, catch up on the latest happenings on off campus and just hang out.

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"There is something about Archie, love what I do."