Washington University School of Medicine
Digital Commons@Becker

Washington University Record | Washington University Publications

1-30-2004

Washington University Record, January 30, 2004

Follow this and additional works at: https://digitalcommons.wustl.edu/record

Recommended Citation
Washington University Record, January 30, 2004. Bernard Becker Medical Library Archives. https://digitalcommons.wustl.edu/record/990.

This Article is brought to you for free and open access by the Washington University Publications at Digital Commons@Becker. It has been accepted for inclusion in Washington University Record by an authorized administrator of Digital Commons@Becker. For more information, please contact vanam@wustl.edu.

Medical News: Proteins may help prevent Alzheimer's brain plaques 3

Sports: Celebration of volleyball national title set for Feb. 6 during basketball games 6

Washington People: Alexander Dromerick rehabilitates patients who have brain injuries 8

Record

Jan. 30, 2004

Volume 28 No. 19

Treasuring the Past — Washington University in St. Louis — Shaping the Future

Celebrating 150 Years

Alcohol-dependence gene identified

By Jim Dryden

Investigators at the School of Medicine, Indiana University's School of Medicine and other centers have identified a gene that appears to increase the risk of alcoholism.

The study, published in the January issue of the journal *Alcoholism: Clinical and Experimental Research*, is the first to demonstrate an association between this particular gene and alcohol dependence.

The gene is related to a receptor that allows for the movement of Gamma-amino butyric acid (GABA) between nerve cells. GABA is the major inhibitory chemical in the central nervous system.

"There were lines of evidence from animal studies and in vitro studies that suggested GABA receptors are involved in the behavioral effects of alcohol," said lead author Danielle M. Dick, Ph.D., research assistant professor of psychiatry.

"Because GABA receptor genes were likely candidates and previous studies had linked this area on chromosome 15 to alcoholism, we zeroed in on three GABA receptor genes but only found significant association with one of them."

The study was conducted as part of the national Collaborative Study on the Genetics of Alcoholism (COGA), an ongoing project involving interviews and DNA samples from more than 10,000 individuals from inpatient and outpatient alcohol treatment centers, and their families. Families in the COGA study usually have several members with alcohol dependence.

For this study, the investigators analyzed DNA from 2,282 individuals from 262 families. They isolated three genes on chromosome 15 — GABRA5, GABRB3 and GABRG3 — that sit very close together. Then the investigators used markers called single nucleotide polymorphisms to study differences between the participants' genes.

The markers demonstrated that small genetic differences did appear to influence the risk of alcohol dependence, but only in the GABRG3 gene.

Dick

But it is not known how GABRG3 influences alcoholism risk. Dick said previous research has suggested chemicals that increase GABA receptor activity can accentuate the behavioral effects of alcohol, such as sedation, loss of anxiety and problems with motor coordination.

Conversely, chemicals that decrease GABA receptor activity can have the opposite effect.

"This suggests that somehow GABA reception might be involved in these behavioral effects," Dick said. "But we don't know exactly how, so we can't tell what

See **Gene**, Page 6

Fully online course offered by U College

By Andy Clendennen

It's 2 a.m. You can't sleep. There's nothing on the tube. So why not go to class?

Sound far-fetched? Not for students enrolled in the "Applied Statistics Online" course offered by University College in Arts & Sciences and taught by David Dixon, Ph.D.

The course is an example of one of the newest University College endeavors — making some classes 100 percent available online.

"In general, I think that the response has been very good," said Robert E. Wiltenburg, Ph.D., dean of University College. "What people have found nationally in continuing education in online courses is that if it is simply an online course, there is a high attrition rate. The motivation, obligation to the instructor and to your fellow students is obviously much lower.

"But something like statistics lends itself very well to this — it's problem-based, you have a clear textbook, you know what it is that you are trying to do, you need more coaching and help from the instructor than strictly speaking blackboard instruction so that it works out very well."

While Wiltenburg said that the statistics course is the only completely online course offered by University College so far, others are in the works, including summer courses for students who go home, or writing courses — which by their very nature would adapt them well to the online format.

But for now, the focus is on the statistics course. And Wiltenburg left the design of the course up to Dixon, a research statistician in biostatics at the School of Medicine.

Dixon has taught the online class for five semesters. Through adapting and conforming, he has come up with a good working

See **Online**, Page 6

Benefits offers new long-term care insurance program

By Andy Clendennen

The Office of Human Resources is offering a new long-term care insurance plan for eligible actively-at-work faculty and nonunion staff, retirees and their spouses/qualified domestic partners.

This new plan, which is underwritten by John Hancock Life Insurance Co., will be effective March 1. The open-enrollment period deadline is Feb. 20.

Those employees and retirees who are currently enrolled in the TIAA-CREF long-term care plan have three choices:

(1) Replace the TIAA-CREF coverage with coverage under John Hancock (call TIAA-CREF at (800) 842-2733, ex. 8011, to cancel);

(2) Keep the TIAA-CREF coverage and enroll in the John Hancock coverage; or

(3) Keep the TIAA-CREF coverage and do not enroll in the John Hancock coverage (no action required).

See **Benefits**, Page 6

This Week In WUSTL History

Jan. 30, 1905

First day of classes held on the new Hilltop Campus.

February 1941

The University began a curriculum to train workers for defense industries in partnership with the U.S. Office of Education — 15,000 students participated over the four years of the program.

Feb. 5, 1946

Chancellor Arthur Holly Compton adopted a policy of strictly amateur athletics, with no athletic scholarships.

This feature will be included in each 2003-04 issue of the Record *in observance of Washington University's 150th anniversary.*

COURTESY PHOTO

Ahhh, summer in Antarctica TIGER (Trans-Iron Galactic Element Recorder), the University and NASA's balloon-borne experiment, has completed a second successful flight from McMurdo Station in Antarctica to collect rare celestial atomic particles called cosmic rays. W. Robert Binns, Ph.D., research professor of physics in Arts & Sciences and TIGER's principal investigator — pictured here before the balloon's Dec. 16 launch — was one of six members of WUSTL's cosmic ray group in Antarctica, joining collaborators from California Institute of Technology and the NASA Goddard Space Flight Center. The instrument floated for 18 days at 130,000 feet to measure the elemental abundances of galactic cosmic rays. TIGER carried two piggyback experiments, including one from Project Aria, the School of Engineering's K-12 science and technology outreach program. TIGER was successfully brought down Jan. 4. Analysis of the data transmitted during the flight is under way. More pictures and information can be found online at cosray2.wustl.edu/tiger/index.html.

Inaugural Career Month to aid student job search

By Neil Schoenherr

For many seniors graduating in May, securing a good job is a top priority. The Career Center hopes to make that process easier with the help of its Career Month.

For the first time, The Career Center will be offering this program throughout an entire month — February — rather than just one week.

Career Month consists of a variety of programs aimed at helping all University students explore careers. The theme is "Find Your Career Path," and the primary focus will be panels and roundtable discussions with professionals both within and outside the St. Louis community.

"We have a number of amazing guest professionals representing a vast array of career paths," said Jennifer Kozak, communications and events specialist at The Career Center. "The program will enable students to explore all kinds of careers and consider opportunities they may not have known existed."

The guests work in areas as varied as public policy, communications, the arts, health care, law, nonprofit and the international arena.

"The professionals are excited to share their career wisdom with young people just starting out," Kozak said. "They will discuss what they do, how they got started and how to break into their field. They will also offer suggestions regarding the internship- and job-search process."

Skill-building events will be offered on, for example, internship-search strategies at "Sophomore Saturday," while managing a successful transition into the world of work will be discussed at the "Senior Seminar."

See **Career**, Page 6

Procurement Conflict of Interest Policy available on Web

Employees conducting business on behalf of the University have a responsibility to do so in a manner that is objective and ethical.

The goal of all such business dealings must be to benefit the University.

The Office of Resource Management has posted a Procurement Conflict of Interest Policy on its Web site.

To read the full policy, go to purchasing.wustl.edu and click on the "Conflict of Interest Policy" link on the left-hand side of the page.

For more information, call the resource management office at 935-5649.

Aiken installed as Van Cleve professor

BY JESSICA MARTIN

Jane Harris Aiken, J.D., professor of law, was installed as the inaugural William M. Van Cleve Professor in a ceremony Jan. 27 in Anheuser-Busch Hall.

"We are grateful to have the opportunity to establish a professorship in the School of Law to honor Bill Van Cleve," Chancellor Mark S. Wrighton said. "Bill is one of our most distinguished alumni, and his accomplishments in the legal profession and in service to his community are an enduring legacy.

"The professorship in his name is a signal honor for its first holder and an ever-present reminder of the wonderful contributions of Bill Van Cleve."

Aiken is the director of the Civil Justice Clinic, in which students act under supervision as lawyers in cases involving a wide array of legal issues that include domestic violence against women and children, predatory lending, homelessness and women's policy work in Nepal.

She also serves as the academic director of the Interdisciplinary Children and Youth Project and is on the Editorial Board of the *Clinical Law Review*.

This past summer, Aiken spent time in Ethiopia as a State Department senior specialist, working with Ethiopian lawyers and activists on women's issues. She was a Treiman Scholar during the 2002-03 academic year and a Fulbright Senior Scholar at Tribhuvan Law Campus in Kathmandu, Nepal, in fall 2001.

In 2000 and 2001, Aiken was a Carnegie Scholar in the Carnegie Academy for the Scholarship of Teaching and Learning.

A nationally recognized expert in the rules of evidence, Aiken has published numerous articles, including "Leveling the Playing Field: Federal Rules of Evidence 412 and 415."

Aiken earned a bachelor's degree from Hollins College in 1977; a juris doctoris from New York University in 1983; and a master of laws in advocacy from the Georgetown University Law Center in 1985.

She spent the next few years teaching at Arizona State University's School of Law, where she founded an HIV Legal Clinic to provide free services to people with AIDS. Aiken then taught at the University of South Carolina School of Law before joining the Washington University School of Law as a visiting professor in 1997.

The following year, Aiken became a full-time member of the law school's faculty.

"Jane's installation as the Van Cleve professor recognizes her outstanding scholarship in evidence, legal education, domestic violence and AIDS-related issues, and her outstanding teaching and community service," said Joel Seligman, J.D., dean of the School of Law and the Ethan A.H. Shepley University Professor. "The emphasis on community service makes this professorship unique among those created at the School of Law to date."

The new law school professorship was created through gifts made in Van Cleve's memory, with the most significant support coming from the Emerson Charitable Trust to honor the former director of Emerson.

Van Cleve served the University in many ways. A life trustee and former chairman of the Board of Trustees, he led the University during a critical period of transition and chaired the search committee for its 14th chancellor — Mark S. Wrighton.

During his tenure as a trustee, Van Cleve served on the Executive Committee for 18 years and on the Nominating and Medical Finance committees. His work spanned all of the board's 15 standing committees.

A 1953 graduate of the School of Law, Van Cleve also focused his time and talents on that school. He was the founding chair of its national council and a member of the advisory board from its inception.

MARY BUTKUS

Chancellor Mark S. Wrighton adjusts the ribbon of the medallion that he presented to Jane Harris Aiken, J.D., professor of law, at her installation as the inaugural William M. Van Cleve Professor Jan. 27 in Anheuser-Busch Hall. Applauding is Joel Seligman, J.D., dean of the School of Law and the Ethan A.H. Shepley University Professor.

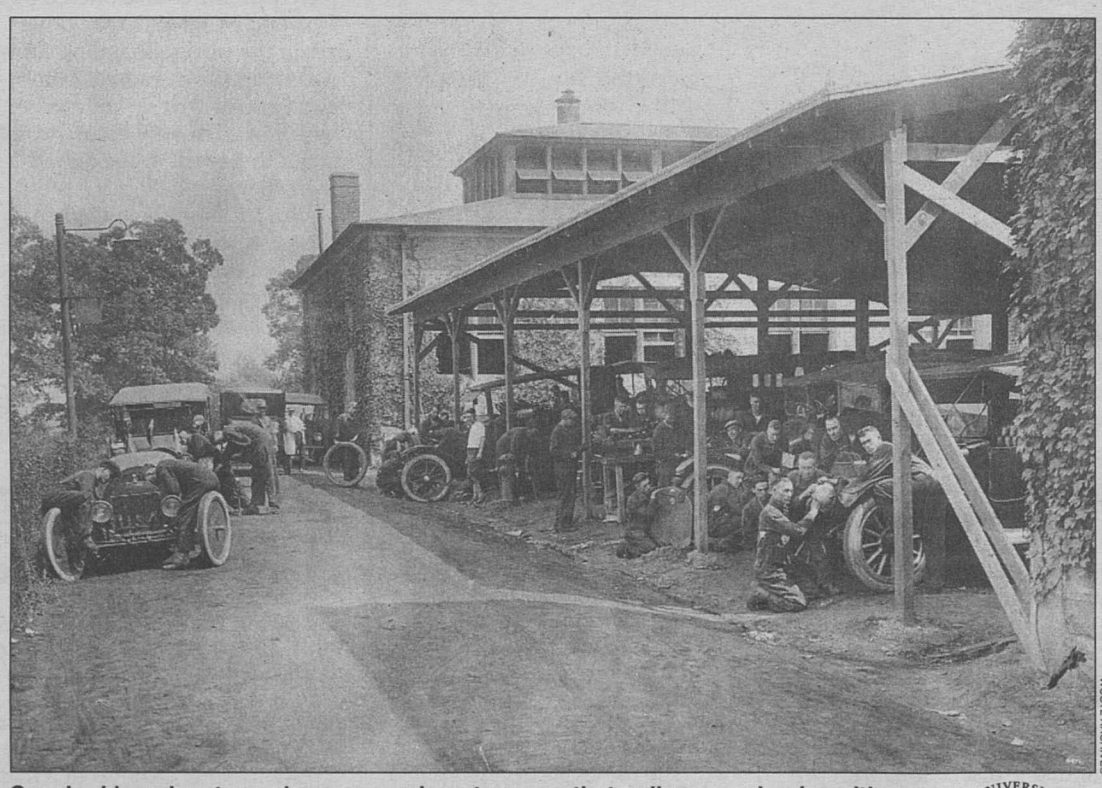
He played a key role in the school's "Building for a New Century" campaign, serving as executive vice chair of the cabinet and financially supporting the construction of Anheuser-Busch Hall.

In addition to his outstanding service to the University, Van Cleve was active in many other organizations and institutions, including serving as a commissioner of the St. Louis Science Center, a trustee of the Saint Louis Symphony Orchestra, president of the Parents as Teachers National Center and a chair and officer of St. Louis Children's Hospital.

Van Cleve died Feb. 28, 2003.

This is the second professorship at the University that bears the Van Cleve name. John R. Bowen, Ph.D., is the Dunbar-Van Cleve Professor in Arts & Sciences, named for Van Cleve and his wife, alumna Georgia Hess Dunbar. Bowen is a professor of anthropology and chair of the Program in Social Thought and Analysis, both in Arts & Sciences.

PICTURING OUR PAST



WUSTL. ARCHIVES

Coached by educators who were anxious to prove that colleges and universities were military assets, the War Department in the spring and summer of 1918 laid plans for the organization of the Student's Army Training Corps. Able-bodied men from ages 18-21 with a high-school education could seek admission to any college or university on the War Department's approved list and, if successful, remain for up to a year of training in many areas, including woodworking, airplane repair, blacksmithing, metalworking and auto repair (above). They underwent military instruction and discipline, received the pay of a private and were clothed, housed, fed and educated at the government's expense. At the peak of the program, nearly 1,200 student-soldiers were on campus — nearly the total enrollment of the degree-granting divisions at the University before the war.

WASHINGTON UNIVERSITY IN ST. LOUIS 150 years 1853–2003 *Treasuring the Past Shaping the Future*

Washington University is celebrating its 150th anniversary in 2003-04. Special programs and announcements will be made throughout the yearlong observance.

Environmental series to resume Feb. 3

BY TONY FITZPATRICK

The University's Environmental Initiative Colloquia will continue Feb. 3 with an in-depth exploration of the effects of lead exposure on childhood development.

It concludes April 22 with a program on our big rivers. In between, invited specialists from around the world will address a variety of environmental topics and Chancellor Mark S. Wrighton will moderate a discussion on "Educational Practices and the Environment."

The series began last semester and featured such prominent people as former U.S. Environmental Protection Agency administrators Carol M. Browner and William Reilly; Nobel laureate Mario Molina and Atomic Energy Regulatory Board of India Chair S.P. Sukhatme.

The initiative was launched during the University's 150th year to explore the role that research universities can play in addressing environmental issues. This initiative will shape the University's educational programs, research and operations as they relate to the environment and will become one of the defining interdisciplinary programs at the University.

Through a series of lectures and colloquia, the initiative hopes to understand the depth of environmental challenges facing the St. Louis region, the nation and the world. An outcome of the initiative is the definition of steps to take to eventually solve these problems.

On Feb. 3, famed child psychiatrist Herbert L. Needleman, M.D., will present a lecture on the lead-poisoning topic and will participate in a panel discussion. (See accompanying story.)

Four eminent scientists will speak on plant sciences and the environment from 2-5 p.m. Feb. 26 in the Arts & Sciences Laboratory Science Building, Room 300.

Sheldon Friedlander, Ph.D., the Parsons Professor of Chemical Engineering at the University of California, Los Angeles, and considered the "father of aerosol science," headlines the "Research in Aerosols and Air Quality: Impact on Nanotechnology to Global Climate" lecture at 3 p.m. March 2 in the Arts & Sciences Laboratory Science Building, Room 300.

There will also be campus-wide ecology program demonstrations on March 28 at a time and site to be announced.

And the School of Architecture will sponsor a daylong colloquium March 30 at a time and site to be announced. This program will discuss "The Sustainable University" and focus on ways universities can become "greener" and more energy-conscious.

At 2 p.m. April 21 in Whitaker Hall Auditorium, Wrighton will moderate "Educational Practices and the Environment," which features administrators from Harvard and Stanford universities and Massachusetts Institute of Technology discussing various environmental education and research initiatives at their respective campuses.

The final colloquium, "Our Rivers: A Sustainable Resource?" will be from 8:30 a.m.-5 p.m. April 22 at the Missouri Botanical Garden and will feature Charles Buescher, professor of environmental engineering, Robert Criss, Ph.D., professor of earth and planetary sciences in Arts & Sciences, and William Lowry, Ph.D., professor of political science in Arts & Sciences.

The program will provide a background history of the rivers in our region and their various uses in transportation, agriculture, power production, recreation and public water supply.

This series is supported by the Sesquicentennial Commission and the V. Kann Rasmussen Foundation.

Feb. 3: Childhood lead-poisoning colloquium

The Environmental Initiative Colloquium Feb. 3 will discuss childhood lead poisoning and will be divided into two sessions.

The first, a presentation by Herbert L. Needleman, M.D., professor of child psychiatry and pediatrics at the University of Pittsburgh, will begin at 9 a.m. in Clopton Auditorium of the Wohl Clinic building on the Medical Campus.

The second session will be from 2-4 p.m. in the Bryan Cave Courtroom of Anheuser-Busch Hall on the Hilltop Campus.

Joining Needleman will be two experts who will discuss "Bridging the Gap Between Research and Policy: Childhood Lead Poisoning as a Case Study." The experts are David E. Jacobs, director of the Office of Healthy Homes and Lead Hazard Control, U.S. Department of Housing and Urban Development; and Neil T. Leifer, partner in the law firm of Thornton & Naumes LLP and an attorney specializing in lead-poisoning litigation.

— Barbara Rea

School of Medicine Update

Proteins may prevent Alzheimer's brain plaques

By Gila Z. Reckess

A study led by School of Medicine researchers suggests that two proteins work together to prevent the formation of brain plaques characteristic of Alzheimer's disease in mice.

The two proteins, apolipoprotein E (apoE) and clusterin, appear to act as "chaperones" orchestrating the clearance of potentially hazardous molecules out of the brain. Ironically, these proteins also have been implicated in a key stage of plaque formation.

The study appears in the Jan. 22 issue of the journal *Neuron*.

"Our findings suggest it is worthwhile to explore the use of drugs or therapies to alter or perhaps increase the expression of these proteins as a potential treatment for Alzheimer's disease," said lead investigator David H. Holtzman, M.D., the Andrew B. and Gretchen P. Jones Professor and head of the Department of Neurology.

A key step in the development of Alzheimer's disease is the formation of brain plaques. Studies suggest these plaques form when the protein amyloid beta (Abeta) is converted from its soluble to its insoluble form and coalesces into hair-shaped threads called fibrils.

Unable to dissolve or be cleared out of the brain, the fibrils eventually clump together and become the amyloid plaques that are a hallmark of Alzheimer's.

In previous studies, Holtzman's team was instrumental in showing the two proteins both promote the formation of these fibrils.

The new study confirms that in mice genetically engineered to develop Alzheimer's disease-like brain plaques, those without either apoE or clusterin developed fewer fibrils.

The team therefore expected mice lacking both proteins would develop even fewer deposits. However, the opposite was true.


Holtzman

Moreover, fibrils in animals lacking both proteins developed significantly earlier in life and resulted in the more advanced amyloid plaques. Such extreme Abeta deposition at a young age is akin to that in humans with the rare, genetic form of the disease called familial Alzheimer's.

"This was an unexpected and striking result," Holtzman said. "Though at first counterintuitive, it implies that apoE and clusterin cooperate to suppress Abeta deposition."

In addition to increased amounts of Abeta in brain tissue, the team found abnormally high levels in the fluid surrounding individual brain cells and in the fluid surrounding the entire brain.

In contrast, levels of Abeta in the blood were not abnormally high.

Combined, the results suggest the two proteins not only play a role in the development of fibrils, but also in the clearance of Abeta from brain tissue and surrounding fluid. Without its chaperones, Abeta protein settles in the brain and eventually clusters into plaques.

According to Holtzman, the next step is to determine whether human forms of apoE and clusterin also delay or prevent the development of plaques in the mouse model and to explore the potential for drugs or gene therapy to reverse plaque formation in mice.

Holtzman, who is also the Charlotte and Paul Hagemann Professor of Neurology and a professor of molecular biology and pharmacology, led the study.

Ronald DeMattos, Ph.D., formerly an instructor in neurology, and John R. Cirrito, a graduate student in neuroscience, are co-first authors. The team collaborated with Eli Lilly and Company, where DeMattos now works.

BOB BOSTON

Increasing awareness Fourth-year medical student Eri Huang admires the AIDS quilt that was on display during AIDS Awareness Week Jan. 12-16 at the Bernard Becker Medical Library. The weeklong event featured panel discussions by people with AIDS as well as lectures on HIV in St. Louis and global issues surrounding AIDS.

Tumor growth requires abnormal cell neighbors

By Gila Z. Reckess

For some brain tumors, it's not just what you know but who you know.

In trying to develop a mouse model of a genetic disorder that predisposes children to certain types of brain tumors, a University team discovered that tumors only developed when genetic abnormalities were present in all brain cells, not just in those that become cancerous.

The study was featured on the cover of the Dec. 15 issue of *Cancer Research*.

"We are quite excited about this report as it represents the first model of this type of tumor," said principal investigator David H. Gutmann, M.D., Ph.D., the Donald O. Schnuck Family Professor of Neurology.


Gutmann

"We've always assumed that cancer results from the loss of specific genes in a particular cell, but apparently that isn't always the case. Our findings suggest that as in real estate, location is everything — a permissive environment may be the key to whether a tumor cell becomes cancerous or just sits dormant for a person's entire life."

According to the National NF Foundation, the genetic disorder neurofibromatosis 1 is the most common neurological disorder caused by a single gene.

The disorder can lead to a variety of complications including skin, spine and brain cancer. Up to 20 percent of patients with the disorder develop tumors in a type of support cell called an astrocyte along the optic nerve and optic chiasm, which transmit visual information from the eye to the brain.

Astrocytes that develop into tumors lack both copies of the *Nf1* gene. So Gutmann's team first developed genetically engineered mice in which all cells were normal except astrocytes, which lacked both copies of the gene. To the researchers' surprise, the mice did not develop brain tumors.

Humans with the disorder are born with one normal and one mutated copy of the gene in all cells in their bodies. Gutmann's team therefore hypothesized that genetic abnormalities in brain cells surrounding astrocytes might be essential for tumor formation.

To test this theory, the team developed mice with no functional copies of the gene in their astrocytes and only one functional copy in all other brain cells, a scenario identical to that of humans with the disease. Every mouse developed astrocyte tumors along the optic nerve or chiasm within the first 10 months.

According to Gutmann, understanding the events that lead to tumor growth is critical for learning how to predict — and hopefully prevent — tumors.

"It's clear from our findings that tumors do not form simply by losing both copies of the *Nf1* gene," he explains. "If we figure out what external cues are necessary to trigger tumor growth, we could try to shut off that switch and stop tumors dead in their tracks without having to correct the underlying genetic defect."

The potential for the mouse model used in this study to serve as a preclinical model of the disorder is enhanced by the team's ability to detect tumors in very early stages using a powerful 4.7-Tesla MRI scanner and algorithms developed by Gutmann's colleagues at the Mallinckrodt Institute of Radiology. Their techniques and equipment enable them to detect tumors the size of a piece of thread.

"We're now beginning to detect these tumors even earlier using MRI," Gutmann said. "I think we've gotten to the point where this mouse model can not only help us understand more about the cell biology underlying brain tumor development, but it also provides a tool for developing and evaluating better treatments."

Scientists film bacteria to understand UTIs

By Michael C. Purdy

Researchers at Washington University and Stanford University have captured time-lapse movies of a urinary tract infection in progress, illuminating several new details of how the bacteria *E. coli* invade cells and gang up to overwhelm the cells' defenses.

The images reveal for the first time that *E. coli*, which are responsible for 80 percent to 90 percent of all UTIs, pass through at least four distinct developmental stages during the course of an infection.

Researchers hope to further define these stages and use them as guides in the search for new drugs.

The study, published in the *Proceedings of the National Academy of Sciences*, also reveals that bacteria will sometimes shift into an inactive state, creating reservoirs of infection within the bladder that might be responsible for some of the recurrent UTIs that plague many women.

At other points in the infection, the movies show the bacteria rapidly changing themselves and their interactions with each other to collectively hijack bladder cells and use them as safe havens for replication.

"It just boggles the mind what these bacteria can do, in terms of sensing and responding to their environment and each other," said Scott J. Hultgren, Ph.D., the Helen Lehbrink Stoever Professor of Molecular Microbiology and lead investigator of the study. "This has never been seen before in live host tissue, and parts of this process are probably present in a multitude of different kinds of pathogens."

Scientists estimate half of all women will experience a UTI, the second-most common type of bacterial infection, at some point in their lives, and additional recurrent UTIs will affect 20 percent to 40 percent of these patients.

Clinicians had assumed that *E. coli* and other bacteria that cause UTIs were not invading cells of the urinary tract, but in June 2003, researchers in Hultgren's lab produced images of *E. coli* forming biofilms inside bladder cells. Biofilms are networks of single-celled pathogens that cooperate with each other to form structures that are resistant to attack.

"Once these bacteria begin to replicate inside their target cell, they almost behave more like a multicellular organism," Hultgren said. "Some kind of switch occurs, and instead of acting like individual bacteria, they behave more in a multicellular manner, working together to defeat the cell's defenses."

Hultgren and his co-authors divided *E. coli's* infectious process into four stages. In the first, bacteria enter bladder cells and begin replicating rapidly. In the second stage, they decrease their size and replication rate and begin to form the intracellular bacterial community (IBC), a podlike structure.

In the third stage, bacteria begin to break out of the IBC and swim away.

"It's like peeling an onion," said Sheryl S. Justice, Ph.D., a postdoctoral fellow in Hultgren's lab and one of three lead authors of the paper. "They come off the outside of the IBC in successive layers."

During the fourth stage, some of the bacteria from the dispersed IBC become filaments, taking on long, thin, needle-like shapes that may help them evade the immune system.

The movies also reveal that groups of *E. coli* will sometimes shift into an inactive or quiescent state, possibly providing a seed for recurrent infection.

Researchers in Hultgren's lab are working to better understand the distinctions between the various stages of development.

"There's such complex genetic circuitry involved here that we're going to have to start thinking about this like electrical engineers," Hultgren said. "But the more we can understand this network, the better our chances of figuring out ways to interrupt it."

Hotel open house

Need a quick getaway? The Parkway Hotel is holding an open house for the Medical Campus from noon-6 p.m. Feb. 10.

The open house features tours of the lobby, standard guest rooms, VIP suites and the concierge area as well as refreshments and door prizes — including a weekend stay in one of the suites.

University Events

OVATIONS! Series to present *Sound Stage* Jan. 31

BY LIAM OTTEN

Iconoclastic composer Paul Dresher will join contemporary music ensemble Zeitgeist for *Sound Stage*, an extraordinarily original work of musical theater centered on a 17-foot-tall, 14-foot-wide "musical jungle gym," as part of the Edison Theatre OVATIONS! Series.

The one-night-only performance will begin at 8 p.m. Jan. 31.

With sly wit and considerable science, *Sound Stage* explores the means, meaning and physics of music-making literally from the ground up … way up.

The set — every surface of which produces sound — is a giant rolling A-frame constructed entirely of invented musical instruments. Over the course of the evening, this massive "sonic sculpture" becomes many things — a drum kit, a metronome, harps plucked by enormous swinging pendulums — yet ultimately proves to be a place of collective musical discovery.

Dresher's score ranges from haunting emotion and jaunting lyricism to powerful passages of rhythmic intensity. The mischievous yet virtuosic musicians of Zeitgeist, directed by Dresher's frequent collaborator Rinde Eckert, are at once skilled instrumentalists and consummate improvisers, inhabiting the stage with authority, economy and more than a touch of deadpan physical humor.

Concert

Who: Composer Paul Dresher and music ensemble Zeitgeist

What: *Sound Stage*

Where: Edison Theatre

When: 8 p.m. Jan. 31

Tickets: $28 for general public; $23 for seniors, students and WUSTL faculty and staff; $14 for WUSTL students and children under 12.

At the end of the 80-minute performance, the audience will be welcomed on stage to explore this impromptu musical playground, either on their own or with the assistance of the designers and performers.

Dresher, born in Los Angeles in 1951, is among the foremost composers of his generation, renowned for integrating diverse musical media and influences into a unique personal style.

Since forming the Paul Dresher Ensemble in 1985, he has guided the creation of the "American Trilogy," a set of experimental operatic works comprising *Slow Fire* (1985-88), *Power Failure* (1988-89) and *Pioneer* (1990). These works, also created in collaboration with Eckert, address different facets of American culture and have been performed hundreds of times in the United States and Europe.

Dresher has received commissions from the Library of Congress, the St. Paul Chamber Orchestra, Spoleto Festival USA, the Kronos Quartet, the San Francisco Symphony and the Walker Arts Center, among others. In 1993, he premiered his "Electro-Acoustic Band," which performs the works of contemporary composers on a hybrid of acoustic and electronic instruments.

Since its founding in Minneapolis in 1977, Zeitgeist has commissioned more than 70 works by both emerging and established composers, including John Cage, Eric Stokes, La Monte Young, Randall Davidson, Mark Applebaum, Mary Ellen Childs and Janika Vandervelde.

The group's recordings include *She's a Phantom*, music of Harold Budd; *Intuitive Leaps*, music of Terry Riley; and *A Decade*, music of Frederic Rzewski.

Edison Theatre programs are supported by the Missouri Arts Council, a state agency, and the Regional Arts Commission, St. Louis.

Tickets are $28 for the general public; $23 for seniors, students and WUSTL faculty and staff; and $14 for WUSTL students and children under 12.

Tickets are available at the Edison Theatre Box Office and through all MetroTix outlets. For more information, call 935-6543.

COURTESY PHOTO

The concert *Sound Stage* features a huge A-frame constructed entirely of invented musical instruments. Composer Paul Dresher will join contemporary music group Zeitgeist for a performance of *Sound Stage* Jan. 31 at Edison Theatre as part of the OVATIONS! Series.

Tennessee Williams • Public Intellectuals • Painting America

"University Events" lists a portion of the activities taking place at Washington University Jan. 30-Feb. 12. Visit the Web for expanded calendars for the Hilltop Campus (calendar.wustl.edu) and the School of Medicine (medschool.wustl.edu/calendars.html).

Exhibits

American Art of the 1980s: Selections From the Broad Collections. Through April 18. Gallery of Art. 935-5423.

American Art on Paper From 1960s to the Present. Through April 18. Gallery of Art. 935-5423.

Painting America in the 19th Century. Through April 18. Gallery of Art. 935-5423.

Danforth Scholars Show. Works of Jill Downen, Brandon Anschultz, Grant Miller, Yoshihiro Kitai and Alison Bates. Des Lee Gallery, 1627 Washington Ave. 935-4643.

History of Adult Education at Washington University, 1854-2004. Through May 31. January Hall, Rm. 20. 935-4806.

Influence 150: 150 Years of Shaping a City, a Nation, the World. Becker Medical Library. 362-7080.

New Beginnings: The First Decade of the Washington University Medical Campus, 1915-1925. Through May 31. Glaser Gallery, Becker Medical Library, 7th Fl. 362-4236.

Lectures

Friday, Jan. 30

9:15 a.m. Pediatric Grand Rounds. "Genetics and Embryology of Hirschsprung Disease." Raj P. Kapur, assoc. prof. of pathology, U. of Wash. School of Medicine. Clopton Aud., 4950 Children's Place. 454-6006.

Noon. Cell Biology & Physiology Seminar. "Aldo-Keto Reductases: Diverse Roles in Metabolism and Disease." J. Mark Petrash, prof. and dir. of research in ophthalmology & visual sciences. McDonnell Medical Sciences Bldg., Rm. 426. 362-3964.

1-2:30 p.m. Film & Media Studies Speaker Series. "Feminist Television Criticism in the Post-Network Era (And Do You Know Where Your Presidential Candidate Stands on the Future of Your Television)." Amanda Lotz, asst. prof. of communication, Denison U. Co-sponsored by Women & Gender Studies and American Culture Studies. Rebstock Hall, Rm. 215. 935-4056.

2-4 p.m. German International Symposium Discussion. "Roundtable on *An Anthology of Interracial Literature: Black-White Contracts in the Old World and the New.*" Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature, prof. of Afro-American Studies and chair, history of American civilization, Harvard U. Co-sponsored by the Sesquicentennial Commission, depts. of English, History and Romance Languages and Literatures, Center for the Humanities, American Culture Studies and African & Afro-American Studies. (Reception follows.) Duncker Hall, Rm. 201, Hurst Lounge. 935-5106.

Monday, Feb. 2

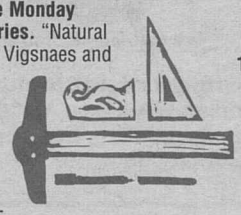
Noon. Molecular Biology & Pharmacology Seminar. "Epithelial-mesenchymal Interactions in Gut Morphogenesis and Adaptation After Resection." Deborah C. Rubin, assoc. prof. of medicine. South Bldg., Rm. 3907, Philip Needleman Library. 362-0183.

Noon-1 p.m. Work, Families, and Public Policy Brown Bag Seminar Series. "Managed Care, Drug Benefits, and Mortality: An Analysis of the Elderly." Gautam Gowrisankaran, asst. prof. of economics. Eliot Hall, Rm. 300. 935-4918.

2:30 p.m. Chemical Engineering Seminar. "The General Law of Complex Chemical Kinetics, Does it Exist?" Gregory Yablonsky, research assoc. prof. of chemical engineering. Cupples II Hall, Rm. 100. 935-6070.

4 p.m. Immunology Research Seminar Series. "B Cell Repertoire Diversification in Humans." Max D. Cooper, investigator, Howard Hughes Medical Inst., U. of Ala.-Birmingham. Eric P. Newman Education Center. 362-2763.

6 p.m. Architecture Monday Night Lecture Series. "Natural Strategies" Hikon Vigsnaes and Einar Jarmund, architects, Jarmund/Vigsnaes Architects MNAL, Oslo, Norway. (5:30 p.m., reception, Givens Hall.) Steinberg Hall Aud. 935-6200.



Tuesday, Feb. 3

9 a.m. Sesquicentennial Environmental Initiative Discussion. "Effects of Early Childhood Lead Exposure: New Findings of Cognitive and Social Impairment." Clopton Aud., 4950 Children's Place. 935-5837.

Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series. "How Plasmodium Infects Host Cells and Escapes the Immune Response." Ana Rodriguez, asst. prof. of medical and molecular parasitology, New York U. School of Medicine. Cori Aud., 4565 McKinley Ave. 362-8873.

2 p.m. Assembly Series. "Childhood Lead Poisoning." Environmental Initiative Colloquium. Anheuser-Busch Hall, Bryan Cave Moot Courtroom. 935-5285.

2 p.m. Sesquicentennial Environmental Initiative Discussion. "Bridging the Gap Between Research & Policy — Childhood Lead Poisoning as a Case Study." Anheuser-Busch Hall, Bryan Cave Moot Courtroom. 935-5837.

6 p.m. WUSTL Sesquicentennial Commission Panel Discussion. "Food For Thought: Talk of the Town." Brown Hall Lounge. 935-5066.

Wednesday, Feb. 4

11 a.m. Assembly Series. The Woman's Club of Washington University Lecture. "How Exporting Free Markets and Democracy Breeds Ethnic Hatred and Global Instability." Amy Chua, author and prof. of law, Yale U. Co-sponsored by the School of Law's Public Interest Speaker Series. Anheuser-Busch Hall, Bryan Cave Moot Courtroom. 935-4958.

4-5 p.m. Biochemistry & Molecular Biophysics Seminar. "Getting the Charge out of RNA: How Ions Help RNA Fold." David E. Draper, prof. of chemistry, Johns Hopkins U. Cori Aud., 4565 McKinley Ave. 362-0261.

Thursday, Feb. 5

Noon. Genetics Seminar Series. Stephen Rogers, dept. of cellular and molecular pharmacology, U. of Calif., San Francisco. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

1:10 p.m. George Warren Brown School of Social Work Spring Lecture Series. "Understanding the Broader Context of American Crime." Richard Rosenfeld, prof. and chair of criminology & criminal justice, U. of Mo.-St. Louis. Brown Hall Lounge. 935-5694.

4-5 p.m. Ophthalmology & Visual Sciences Seminars. "Synaptic Specificity: The Cadherin Superfamily as Molecular Cues." Joshua A. Weiner, postdoctoral fellow, dept. of anatomy & neurobiology. Maternity Bldg., Rm. 725. 362-1006.

Friday, Feb. 6

Noon. Cell Biology & Physiology Seminar. "The Role of Basal Bodies: From Cilia to Obesity." Susan K. Dutcher, prof. of genetics and of cell biology & physiology. McDonnell Medical Sciences Bldg., Rm. 426. 362-3964.

12:30-4:30 p.m. STD/HIV Prevention Training Center CME Course. "STD/HIV Case Finding & Initial Care." Cost: $50. U. of Mo.-St. Louis, S. Computer Bldg., Rm. 200A. To register: 747-1522.

Saturday, Feb. 7

8 a.m.-4 p.m. Siteman Cancer Center CME Course. "Review of the 2003 San Antonio Breast Cancer Symposium." Co-sponsored by the St. Louis Society of Medical Oncology. Cost: $35. The Ritz-Carlton, St. Louis, 100 Carondelet Plaza. To register: 362-6891.

Monday, Feb. 9

Noon. Molecular Biology & Pharmacology Seminar. "When Viral Immunology and Genetic Approaches Meet in Vivo the Results Can Be Surprising." Herbert W. Virgin, prof. of pathology & immunology and of molecular microbiology. South Bldg., Rm. 3907, Philip Needleman Library. 352-0183.

4 p.m. Immunology Research Seminar Series. "Innate and Adaptive Immunity Against West Nile Virus: The Role of Complement, Antibody, and T Cells in Controlling Disseminated Infection." Michael S. Diamond, dept. of internal medicine. Eric P. Newman Education Center. 352-2763.

Chua to discuss exporting free markets & democracy

BY BARBARA REA

Amy L. Chua, professor of law at Yale University and member of the American Society of International Law's executive council, will discuss her new book Feb. 4 for the Assembly Series and the School of Law.

The book, *World on Fire: How Exporting Free Market Democracy Breeds Ethnic Hatred and Global Instability*, posits that the West's exportation of free markets and democratic philosophies to developing countries does more harm than good.

Her talk will be at 11 a.m. in the Bryan Cave Moot Courtroom in Anheuser-Busch Hall. A panel discussion featuring Chua and Washington University faculty members immediately follows the lecture.

Chua

Chua is a past consultant for the American Bar Association's Section of International Law and Practice, and the Central and East European Law Initiative.

She earned a bachelor's and a law degree at Harvard University, where she served as the executive editor of the *Harvard Law Review*. After graduation, Chua clerked for Judge Patricia M. Wald of the U.S. Court of Appeals for the District of Columbia Circuit.

She was an associate in private practice until 1994, when she became a professor at Duke University's School of Law. In 2001, Chua joined the faculty at Yale, where she teaches contracts, international business transactions, law and development, ethnic conflict, and globalization and the law.

The program is sponsored by the Assembly Series, Student Union, the Asian American Law Student Association, the School of Law Center for Interdisciplinary Studies, the Whitney R. Harris Institute for Global Legal Studies and the Department of Political Science in Arts & Sciences. The talk is part of the School of Law's sixth annual Public Interest Law Speaker Series.

Chua's talk is free and open to the public. For more information, call 935-4620 or go online to wupa.wustl.edu/assembly.

Work, Families and Public Policy

Luncheon series to begin Feb. 2

BY JESSICA MARTIN

Faculty and graduate students from St. Louis-area universities with an interest in topics relating to labor, households, health care, law and social welfare are being invited to take part in a series of Monday brown-bag luncheon seminars to be held biweekly through April.

Now in its eighth year, the "Work, Families and Public Policy" series features one-hour presentations on research interests of faculty from local and national universities.

Presentations will be from noon-1 p.m. in Eliot Hall, Room 300, and will be followed by a half-hour discussion period.

Robert A. Pollak, Ph.D., the Hernreich Distinguished Professor of Economics in Arts & Sciences and the Olin School of Business, has been the lead organizer of the series for the past seven years. The co-organizer is Michael W. Sherraden, Ph.D., the Benjamin E. Youngdahl Professor of Social Development and director of the Center for Social Development in the George Warren Brown School of Social Work.

The series is designed to promote interdisciplinary research. The presentations are listed below.

• **Feb. 2: Gautam Gowrisankaran**, Ph.D., assistant professor of economics in the Olin School, will address "Managed Care, Drug Benefits, and Mortality: An Analysis of the Elderly."

• **Feb. 16: Donald Nichols**, Ph.D., assistant professor of economics, will speak on "Racial Differences in the Decision Choice Models of the Hospital Assignment Process."

• **March 1: Mark Rosenzweig**, Ph.D., the Mohamed Kamal Professor of Public Policy at Harvard University, will discuss "Traditional Institutions Meet the Modern World: Caste, Gender and Schooling Choice in a Globalizing Economy."

• **March 15: Olivia Mitchell**, Ph.D., will focus on "Prospects for Social Security Reform." Mitchell is the International Foundation of Employee Benefit Plans Professor and professor of insurance and risk management and business and public policy at the University of Pennsylvania.

• **March 29: Mark Schnitzler**, Ph.D., assistant professor of health administration in the Washington University School of Medicine, will speak on "Investing in Organ Donation."

• **April 12: James J. Heckman**, Ph.D., the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago, will talk on "Interpreting the Evidence of Family Influence on Child Development."

• **April 26: Katharine Silbaugh**, J.D., professor of law at Boston University, will address "Women's Place: Urban Planning and Work-Family Balance."

The series is sponsored by the Olin School, GWB and the Center for Social Development, the Center for Interdisciplinary Studies in the School of Law, the Department of Economics, the Center for Health Policy and the College of Arts & Sciences.

The classroom is courtesy of the Weidenbaum Center on the Economy, Government, and Public Policy.

For more information, go online to www.olin.wustl.edu/links and click on the "Academic Seminars" link on the right-hand side.

For additional information, contact Pollak (935-4918; pollak@wustl.edu) or Sherraden (935-6691; sherrad@wustl.edu).

Gloria White award nominations sought

BY ANDY CLENDENNEN

The Office of Human Resources is seeking nominations for the Gloria W. White Distinguished Service Award, which recognizes a staff member for exceptional effort and contributions that result in the enhancement of the University.

Nominations must be submitted by Feb. 16.

The annual award was named for the late Gloria W. White, who retired in 1997 as vice chancellor for human resources after 30 years with the University.

While exceptional effort and contribution can be described in many ways, those making nominations for this award are asked to consider actions that strengthen the University's ability to promote learning; help create a positive working and learning environment; improve the wider community; and enhance the University's reputation.

Nominees must have at least five years of employment with the University and be nonacademic staff members in good standing. Nominations will be focused on the Hilltop and West campuses, as the School of Medicine established the Dean's Award to provide similar recognition to medical school employees.

A nomination for the White award must include the nominee's name, the specific reason(s) for the nomination, a brief description of how the University benefits or has benefited from the nominee's actions and the signature of the person submitting the nomination.

A committee will review the nominations and select the winner, who will receive the $1,000 award during the May 24 Staff Day celebration on the Hilltop Campus.

Nomination forms are available on the human resources Web site (hr.wustl.edu). Click on "Workplace Support/Policies & Procedures," then on "Employee Recognition" and then "Gloria W. White Distinguished Service Award."

Call 935-5990 to obtain a paper copy.

Send nominations to Gloria W. White Distinguished Service Award, Campus Box 1184.

6 p.m. Architecture Monday Night Lecture Series. "The Rural Studio Now." Bruce Lindsey, dir., of architecture and co-dir. of the rural studio, Auburn U. (5:30 p.m. reception, Givens Hall.) Steinberg Hall Aud. 935-6200.

Tuesday, Feb. 10

Noon. Molecular Microbiology and Microbial Pathogenesis Seminar Series. "Hypermutation and Adaptive Behavior of Bacterial Pathogens." Richard Moxon, action research prof. of pediatrics, U. of Oxford, England. Cori Aud., 4565 McKinley Ave. 362-3692.

Wednesday, Feb. 11

11 a.m. Assembly Series. Thomas D. Fulbright Lecture. "The People Themselves: The Constitutional Responsibility of the American People." Michael Les Benedict, author and prof. of law, Ohio State U. Graham Chapel. 935-5285.

Thursday, Feb. 12

8:30 a.m.-4:30 p.m. Center for the Application of Information Technology Workshop. "Selling Skills for IT Professionals." (Continues 8:30 a.m.-4:30 p.m. Feb. 13.) Cost: $960. To register: 935-4444.

10 a.m.-11:30 a.m. Arts & Sciences Conversations. "Public Intellectuals." Moderated by Gerald Early, Merle Kling Professor of Modern Letters. Graham Chapel. 935-7304.

Noon. Genetics Seminar Series. Kathleen Smith, prof. of biology, Duke U. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

1:10 p.m. George Warren Brown School of Social Work Spring Lecture Series. "Multicultural Community-based Practice: Strategies and Challenges." Lorraine Gutierrez, prof. of psychology and family dir., of the Edward Ginsberg Center for Community Service and Learning, U. of Mich. Brown Hall Lounge. 935-6661.

4 p.m. Assembly Series. Rabbi Ferdinand Isseman Lecture. Rabbi Susan Talve, founding rabbi of Central Reform Congregation. Graham Chapel. 935-5285.

7-9 p.m. Tennessee Williams Symposium. (Continues 8 a.m.-8:30 p.m. Feb. 13, 9 a.m.-10 p.m. Feb. 14.) Cost: $75 for all events and transportation, $15 for general admission. Forest Park, Jewel Box. To register: 935-7025.

How to submit 'University Events'

Submit "University Events" items to Genevieve Podleski of the *Record* staff via:

(1) **e-mail** — recordcalendar@wustl.edu;

(2) **campus mail** — Campus Box 1070; or

(3) **fax** — 935-4259.

Deadline for submissions is noon on the Thursday eight days prior to the publication date.

Music

Monday, Feb. 2

8 p.m. Concert. Washington University Chamber Orchestra. Elizabeth Macdonald, dir. Umrath Hall Lounge. 935-4841.

On Stage

Saturday, Jan. 31

8 p.m. OVATIONS! *Sound Stage.* Cost: $28, $23 for senior, student, WUSTL faculty & staff, $14 for WUSTL students, children 12 and under. Edison Theatre. 935-6543.

Friday, Feb. 6

8 p.m. ***Me, Vashya/The Glass Menagerie.*** (Also 8 p.m. Feb. 7 & 14, 2 p.m. Feb. 7, 8 and 15.) Cost: $12, $8 for seniors, WUSTL faculty, staff and students. Mallinckrodt Student Center, A.E. Hotchner Studio Theatre. 935-6543.

Thursday, Feb. 12

8 p.m. V-Day Presentation. *The Vagina Monologues.* (Also 8 p.m. Feb. 13 & 14.) Cost: $10, $8 for seniors, students, WUSTL faculty and staff. Graham Chapel. 935-6543.

Sports

Friday, Feb. 6

6 p.m. Women's Basketball vs. Carnegie Mellon U. Athletic Complex. 935-4705.

8 p.m. Men's Basketball vs. Carnegie Mellon U. Volleyball national championship presentation at halftime. Athletic Complex. 935-4705.

Sunday, Feb. 8

1 p.m. Men's Basketball vs. U. of Rochester. Athletic Complex. 935-4705.

3 p.m. Women's Basketball vs. U. of Rochester. Athletic Complex. 935-4705.

And more...

Friday, Jan. 30

7 p.m. Gallery of Art Public Exhibition Tour. Led by student docents. Gallery of Art. 935-4523.

GWB lecture series addresses pressing social issues

BY JESSICA MARTIN

The George Warren Brown School of Social Work's spring lecture series addresses a broad spectrum of issues from violence to ethics in social work practice.

The series kicked off Jan. 22 with a lecture by David O. Renz on "Nonprofit Organizational Effectiveness: Practical Implications of Research on an Elusive Concept." Renz is the Beth K. Smith/Missouri Chair on Nonprofit Leadership and director of the Midwest Center for Nonprofit Leadership at the University of Missouri-Kansas City.

All lectures will be held at 1:10 p.m. in Brown Hall. Other talks are listed below.

• **Feb. 12: Lorraine Gutierrez**, Ph.D., professor of psychology and family director of the Edward Ginsberg Center for Community Service and Learning at the University of Michigan, will speak on "Multicultural Community-Based Practice: Strategies and Challenges."

• **March 4: Frederic Reamer**, Ph.D., professor of social work at Rhode Island College, will address "Ethical Issues in Social Work Practice and Education: Essential Knowledge for the Profession."

• **April 1: Larry EchoHawk**, J.D., professor of law at Brigham Young University, will address "Breaking the Cycle of Violence for Future Generations." This lecture is co-sponsored by the Kathryn M. Buder Center for American Indian Studies.

• **April 29**: Nobel Memorial Prize-winner **Douglass C. North**, Ph.D., the Spencer T. Olin Professor in Arts & Sciences, will talk on "Understanding Social and Economic Change."

The lectures are free and open to the public. For more information, call Barbara Levin at 935-6661.

Economic inequality in America is theme of talks

BY JESSICA MARTIN

As part of the University's Sesquicentennial celebration, Mark R. Rank, Ph.D., the Herbert S. Hadley Professor of Social Welfare in the George Warren Brown School of Social Work, is hosting a lecture series titled "Exploring the Impact of Economic Inequality Upon American Society."

The series kicked off Jan. 21 with a lecture by Ichiro Kawachi, Ph.D., professor of epidemiology and director of the Harvard Center for Society and Health, on "Why Inequality Is Harmful to Your Health."

All lectures will be held at 1:10 p.m. in Brown Hall Lounge. Other talks are listed below.

• **Feb. 5: Richard Rosenfeld**, Ph.D., professor and chair of the department of criminology and criminal justice at the University of Missouri-St. Louis, will focus on "Understanding the Broader Context of American Crime."

• **Feb. 19: Thomas Shapiro**, Ph.D., will address "How Wealth Perpetuates Racial Inequalities." Shapiro is the Pokross Professor of Law and Social Policy at Brandeis University's Heller School of Social Policy and Management.

• **March 18: Claude Fischer**, Ph.D., professor in the department of sociology at the University of California, Berkeley, will speak on "Where We Live: Separate and Unequal."

• **April 14: Larry May**, Ph.D., professor of philosophy in Arts & Sciences at Washington University, will talk on "Exploring Our Moral and Collective Responsibilities."

Rank plans to edit a book on economic inequality in America based on the lecture series.

The lectures are free and open to the public. The series is sponsored by the Center for the Study of Human Values and GWB.

For more information, call Rank at 935-5694.

Chamber Orchestra to perform hits of the Baroque Feb. 2

BY LIAM OTTEN

The Washington University Chamber Orchestra — under the director of Elizabeth Macdonald, director of strings in the Department of Music in Arts & Sciences — will perform a concert of all-time hits from the Baroque era and the 20th century at 8 p.m. Feb. 2 in Umrath Hall Lounge.

The concert will opens with American composer Samuel Barber's *Adagio for Strings*, a work made popular through numerous film scores. Also on the program are *Concertos Nos. 3 & 6* from Johann Sebastian Bach's *Brandenburg Concertos*, a set written to impress the margrave of Brandenburg, Germany. The concertos are known for their virtuosic requirements from the performers and for their diverse instrumentation.

Nos. 3 & 6, the only two scored just for strings, differ in that *No. 6* excludes the violins and uses only the lower strings.

The program will conclude with Heinrich Ignaz Franz von Biber's *Battaglia*. The piece falls into a category of musical composition known as "battaglia," which is highly descriptive of the sounds of battle. Battaglias were popular from the 16th to 18th century in Italy, England France and Spain, though Beethoven was still employing the genre with his *Wellington's Victory* from 1813.

The music is generally lively and marked by its rhythmic patterns, made either by the voice or by instruments. In his *Battaglia*, Biber, lacking a large orchestra or noisy percussion instruments to imitate the sounds of war, creates his own racket by writing the music in two conflicting keys, thus producing a sense of great dissonance and discord.

The concert is free and open to the public and is sponsored by the Department of Music. For more information, call 935-4841.

Online

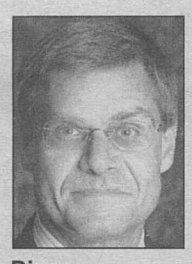
Some class discussions 'get pretty lively'

– from Page 1

model.

"The course is designed to be conducted entirely online," Dixon said. "However, if a student would like to call me or meet with me in person, that is certainly OK. There is a textbook that we use, and I supply reading assignments and homework problem sets.

"Exams are submitted online also, but some students prefer to send me hard copies, which is fine. I don't post grades, but students send me private e-mails or just call me for grade info."



Dixon

So while the class is designed to be fully online, Dixon incorporates some face time with those students who need it. He also sends out discussion questions that members of the class will discuss online.

That represents a slight change from his earliest thoughts when approached about starting a course like this four years ago.

"At first I thought teaching a technical course like statistics in an online environment would not work well," Dixon said. "But as I got into it, I found that class discussions were actually better in terms of both quantity and quality. People tend to be more forthright online than in person. Some of our class discussions get pretty lively.

"I usually put out discussion questions on Monday and monitor discussion throughout the week. It's fun to see how the students interact and pose different scenarios for problems."

One of the things that has held back University College — and continuing education programs nationally — in attempting to increase the scope of fully online courses is the need for quality faculty. But with Dixon, Wiltenburg found the right person to start this endeavor.

"Frankly, one of the limiting factors is the interest of the faculty," Wiltenburg said. "It's one thing to say to yourself, 'Hey, I bet there are people out there who want to do this.' It's another thing to actually have an excellent instructor willing to try it, because whenever you are pioneering a component like this, there are going to be surprises and glitches.

"You need to have someone who is passionate about this — like David Dixon, who was interested and fully versed online."

Another obstacle is the sheer cost of putting something online, both from a technology standpoint — as well as the issue of how much are students willing to pay.

"It's not cheap no matter how you do it," Wiltenburg said. "One of the things that is interesting is that it cuts against the idea that the whole culture of the Internet is quick and cheap. You go to a Web site and you aren't expecting to pay money.

"I want it to be there, I want it to be free, and I want it to be just the way it was when I used to go to the library and open up an encyclopedia."

Despite the possible drawbacks, though, Dixon's statistics course is receiving positive reviews from students and coworkers.

"The online discussions have really turned out extremely well," Dixon said. "People who don't raise their hand in class to ask a question or made a comment have no qualms about participating in online discussions.

"People tend to open up a lot in an online environment — more than in person. And in a course like statistics, removing the intimidation factor in any way possible is very conducive to learning."

Gene

GABA found to be involved in alcoholism

– from Page 1

the pathway might be that leads from GABA receptor genes to alcoholism."

Finding that GABA is involved in alcohol abuse and dependence supports a current theory that predisposition to alcoholism might be inherited as part of a general state of brain overactivation.

People at risk for alcoholism may inherit a variety of genes that contribute to this state. Perhaps alcohol normalizes that state of excitability, leading people with a hyperexcited nervous system to use alcohol more frequently in order to normalize brain circuits.

That, in turn, would put them at greater risk for developing alcohol dependence.

Dick said it is important to point out that genetic makeup does not necessarily mean a person is doomed to become an alcoholic.

"One reason it is so difficult to find genes involved in psychiatric disorders is that there is an interplay between genetic and environmental factors," she said. "A person can carry all kinds of genes that predispose them to alcohol dependence, but if they never take a drink, they won't become an alcoholic."

Career

'Outstanding lineup of guests' in February

– from Page 1

Students will have opportunities to interact with employers at the "Pizza With Professionals" event, which, along with mock interviews and résumé critiques, will be offered throughout the month.

The capstone event will be the "Etiquette Dinner," co-hosted by The Career Center and local employers, at 5:30 p.m. Feb. 15 at Whittemore House. Students will learn how to present themselves in a professional setting and receive sound advice on the "do's and don'ts" of dining etiquette, all while networking with local employers who will serve as table hosts. The $15 student fee for the event includes a three-course meal.

"Students won't want to miss this opportunity," Kozak said. "The events are always extremely informative, and this year we have an outstanding lineup of guests."

Most events for Career Month are open to all University students, but a reservation is required for each event.

For a complete listing of events, times and locations, or to make a reservation, go online to careers.wustl.edu or call 935-5930.

Gateway to the weekend: Gallery of Art Friday events

By Liam Otten

Tired of TV, bored with bars, cynical about the cineplex?

Start the weekend at the Gallery of Art, which will host lectures, concerts, film screenings, artists' talks and guided tours on Friday evenings throughout the spring.

All events begin at 7 p.m. and are free and open to the public unless otherwise noted.

Most activities are presented in conjunction with the gallery's major spring exhibition, *American Art of the 1980s: Selections From the Broad Collections*, or the attendant shows *Painting America in the 19th Century* and *American Art on Paper From the 1960s to the Present*, both drawn from the University's permanent collection.

Highlights include the *SoHo In Hollywood/Hollywood in SoHo: 80s Artists on Film Series*, which screens *Downtown 81* (Edo Bertoglio, 1981/2000) and *Arena Brains* (Robert Longo, 1987) Feb. 6; *Search and Destroy* (David Salle, 1994) March 5; and *Basquiat* (Julian Schnabel, 1996) April 9.

The Friday Forum series will feature conversations with:

- Sabine Eckmann, curator of the Gallery of Art, and Paul Ha, director of the Contemporary Art Museum St. Louis (Feb. 13);
- Eckmann and David Bonetti, visual arts critic for the *St. Louis Post-Dispatch* (March 19); and
- Angela Miller, associate professor of art history and archaeology in Arts & Sciences, and Andrew Walker, senior curator at the Missouri Historical Society (April 2).

Each talk is preceded by a reception at 6:30 p.m. The cost is $10 per talk or $25 for the whole series (students are $5 each/$12 series) and includes wine and appetizers.

Advance reservations are required and space is limited. Call 935-5490 or e-mail wuga@wustl.edu for more information.

Also on the spring calendar are talks by Fumihiko Maki, Pritzker Prize-wining architect of the University's planned Sam Fox Arts Center (6 p.m. Feb. 23); and Alison Pearlman, author of *Unpackaging Art of the 1980s* (March 23).

Go online to wuga.wustl.edu for complete schedule. Regular Gallery of Art hours are 10 a.m.-4:30 p.m. Tuesday through Thursday; 10 a.m.-8 p.m. Fridays; and noon-4:30 p.m. weekends. (The gallery is closed on Mondays.)

For more information, call 935-5490.

Benefits

– from Page 1

Over the past few weeks, communication materials were sent and employee informational meetings were conducted regarding the new long-term care insurance plan.

For more information and enrollment assistance, employees and retirees can:

- Call John Hancock at (877) 582-2288;
- Go online to the WUSTL long-term care Web site at wustl.jhancock.com (username: wustl; password: mybenefit); or
- Visit the WUSTL human resources Web site at hr.wustl.edu.

Sports

Volleyball celebration set for Feb. 6

By Nick Povalitis

The 2003 NCAA Division III national champion Washington University volleyball team will be recognized Feb. 6 at halftime of the men's basketball game, which will start at 8 p.m. against Carnegie Mellon University.

Festivities will include the unveiling of the championship banner, a presentation of the national championship trophy, comments from the team and appearances by Chancellor Mark S. Wrighton and John Schael, director of athletics.

The Bears finished 2003 with a 38-3 record and a Division III-record eighth national title.

The women's basketball team will face Carnegie Mellon at 6 that evening. Among the other activities throughout the night, there will be an autograph session with members of the volleyball team between the basketball games.

Men's hoops goes east, wins two

The men's basketball team made the most of its first trip to the East Coast by picking up two key University Athletic Association wins, against Brandeis University and New York University. With the wins, WUSTL improved to 12-4 overall and 4-1 in conference. The Bears opened their four-game road stretch by knocking off NYU 94-83 Jan. 23 at the Coles Sports and Recreation Center. Senior Barry Bryant scored 12 second-half points to help the Bears erase a three-point halftime deficit, giving Washington U. its third conference win in four games. Two days later, the Bears beat Brandeis 80-71 win in Waltham, Mass. Bryant finished with 15 points and seven rebounds.

Other updates

The No. 7 **women's basketball** team split a pair of games this past weekend on the East Coast, but remained in a tie with the University of Rochester in the UAA. On Jan. 23, the Bears nine-game winning streak was snapped as WUSTL fell to New York University, 68-58. Leslie Hawley finished with 19 points and a career-high seven steals, while sophomore Danielle Beehler added a team-high 14 rebounds. The Bears regrouped two days later to defeat Brandeis, 70-64, at Auerbach Arena. Washington U. used a 13-0 run late in the second half to take control of the game.

On the Web

For complete sports schedules and results, go to **bearsports.wustl.edu**.

Sophomore Kelly Manning led the Bears with 21 points, including six in the final two minutes of play.

The **swimming and diving** teams completed the regular season by hosting the WU Invitational at Millstone Pool. The women took first place, finishing 402 points ahead of second-place DePauw University. The men placed second of seven teams. On the women's side, Allie Boettger and Jennifer Scott led the way. Scott won three events (500 free, 200 free, 100 fly) and provisionally qualified for the NCAA Championships in the 100 fly and 500 free. Boettger picked up two wins (100 and 200 breaststroke) and earned provisional qualifications in both events. Michael Slavik (200 free), Eric Triebe (100 free) and James Prescott (1,650 free) each picked up individual titles on the men's side.

The **men's and women's track and field** teams opened the 2004 indoor season Jan. 24 at the Rose-Hulman Invitational in Terre Haute, Ind. Both squads had strong showings, posting second-place finishes in the five-team fields. The squads swept four events on the day, including the weight throw, pole vault, 400 and 3,000.

Cheerleading & dance clinic Feb. 28

A cheerleading and dance clinic for first- through fifth-graders will be held from 9:30 a.m.-3 p.m. Feb. 28 at the Athletic Complex.

Eligible children of faculty and staff are being encouraged to participate. The University's cheerleaders and Wash U Jive dance team members will serve as coaches.

A $25 fee, payable via cash or check, must be paid by Feb. 24. The fee includes lunch and a T-shirt.

For more information and a registration form, contact Erin McClure (935-5128; emcclure@athletics.wustl.edu), assistant director of intramural sports.

Women's tennis team fund-raiser Feb. 7

The women's tennis team, in conjunction with the W Club, is sponsoring its 13th annual fund-raising tennis party at 6:30 p.m. Feb. 7 at the Frontenac Racquet Club.

The party will raise funds for the team's annual spring-break training trip. This year, the 12th-ranked Bears will be going to California to compete against other nationally ranked teams.

Attendees will enjoy playing with both local area pros and members of the women's tennis team. A buffet dinner and silent auction also will be included. Nonplayers are invited to come to meet the players.

For more information, contact coach Lynn Imergoot (935-5204; imergoot@wustl.edu). The deadline for reservations is today.

The Bears begin their spring season Feb. 13 at the Principia Invitational in Elsah, Ill. In 29 seasons of play, the team has achieved a 409-152 record, all under the direction of Imergoot.

Notables

Of note

Brian Faddis, Ph.D., research assistant professor of otolaryngology, has received a one-year, $39,959 grant from the American Otological Society for research titled "Role of Glutamate Receptors in NOSI Mediated Bone Resorption in the Ear." …

Deborah Dubin, adjunct faculty member of University College, was recently named by Missouri Gov. Bob Holden to the board of directors for the Ameren Community Development Corporation (CDC). The not-for-profit CDC will be dedicated to addressing critical economic development initiatives in the state of Missouri. It is the state's first utility-driven economic community development corporation to operate across the 20,000 square miles of AmerenUE retail electric service area in Missouri. …

Adrian Luchini, the Raymond E. Maritz Professor of Architecture, recently served as a juror for the design awards of the New York Chapter of the American Institute of Architects. In addition, Luchini's $1.8 million, 18,000 square-foot addition/renovation of Chesterfield Montessori School in St. Louis County recently was published in the Argentine architecture magazine Summa, as part of a special issue on the "Argentine Architecture and Architects."

Correction

Jan. 23 issue, Page 6: An incorrect date was published for an Environmental Initiative Colloquium. The "Educational Practices and the Environment" discussion will be held at 2 p.m. April 21 in Whitaker Hall Auditorium. The *Record* regrets the error.

COURTESY PHOTO

Excellence in teaching **Stuart I. Greenbaum, Ph.D. (left), dean of the Olin School of Business and Bank of America Professor of Managerial Leadership, and Missouri Gov. Bob Holden (right) present Jackson Nickerson, Ph.D., associate professor of organization and strategy at the Olin School, with a 2003 Governor's Award for Excellence in Teaching from the Missouri Department of Higher Education. The criteria used in the selection of a recipient for the prestigious award were effective teaching, innovation in course design and delivery, effective advising, service to the university community and commitment to high standards of excellence.**

Glass named student health director

BY NEIL SCHOENHERR

Al Glass, M.D., has been named director of the Student Health and Counseling Center. He began his duties Jan. 1.

Glass

Glass previously spent nearly six years as associate medical director at Miami University in Oxford, Ohio.

"My intention in this new position is to be totally devoted to college health as a specialty, as I was at Miami," Glass said. "I view college health as a field, just like neurology or pediatrics.

"It has its own unique challenges and rewards, but the most important thing about college health is to stay student-focused. They need to be at the center of everything I do, and I will strive to make decisions based on that."

Glass earned a bachelor's degree in biology from the University of Minnesota, where he also earned a medical degree in 1982. He served as a pediatric resident at Children's Hospital in Cincinnati before working in the emergency department at Bethesda Hospital, also in Cincinnati, for 13 years.

He accepted a position in college health at Miami University in 1998 and was promoted to associate director after two years.

He is on the board of directors of the American College Health Association.

Campus Watch

The following incidents were reported to University Police **Jan. 21-27**. Readers with information that could assist in investigating these incidents are urged to call 935-5555. This information is provided as a public service to promote safety awareness and is available on the University Police Web site at police.wustl.edu.

Jan. 22

7:43 p.m. — A person stated that he left his cell phone in the staff room on the second floor of Olin Library. When he returned, the cell phone was missing.

Jan. 26

8 p.m. — A student noticed a person watching her as she approached her residence in the 5800 block of Nina Avenue. After she entered the building, the subject followed and confronted her. The suspect grabbed her coat and personal items. While the suspect was obtaining the victims' property, a second suspect was acting as a lookout and holding the front door partially open. Both suspects fled the scene. No weapon was displayed, however one suspect indicated he had a gun. The suspects were males in their 20s, wearing baggy clothing and hooded sweatshirts.

Jan. 27

1:18 p.m. — A student reported the loss of her identification card somewhere in Wohl Student Center.

Additionally, University Police responded to two auto accidents, two information reports, two larcenies, two maintenance calls and two reports of lost articles, and one report each of peace disturbance, liquor violation and judicial violation.

Campus Authors

John R. Bowen, Ph.D., the Dunbar Van-Cleve Professor in Arts & Sciences; chair, Program in Social Thought & Analysis; professor of anthropology

Islam, Law and Equality in Indonesia: An Anthropology of Public Reasoning

(Cambridge University Press, 2003)

In Indonesia, the world's largest Muslim-majority country, Muslims struggle to reconcile radically different sets of social norms and laws, including those derived from Islam, local social norms and contemporary ideas about gender equality and rules of law.

Bowen

In his newest book, Bowen examines these struggles firsthand through research and interviews with locals in Sumatra.

"Muslims throughout the world are thinking through how best to interpret Islamic norms and traditions for their societies, and reworking their legal systems on the basis of their reflections," Bowen said. "Gender equality is central to these changes, and many of the most interesting debates on that issue have taken place in Indonesia, which has the largest Muslim population in the world.

"For obvious reasons, many of us are interested in Islam, but much of what we read is very general, on the order of 'Islam says such-and-such', with little appreciation of how varied and frankly fascinating the ongoing debates and changes are."

The book is written with a scholarly bent and will be appreciated by students across social sciences, especially anthropology, cultural sociology and political theory.

"I have been working in and on Indonesia since 1978, and most of what I have written concerns Islam: ritual, everyday life, families, and law," Bowen said. "So the book is the product of a long-term study, but the topic is particular important now."

The underlying theme of the book is one that Bowen hopes will reach even the readers with a casual interest in Islam and the struggles between Muslims and non-Muslims.

"(I hope people will understand) that Muslims everywhere are engaged in serious thinking and experimentation with respect to Islam, the norms of international and national law, and their own local traditions," Bowen said.

— Andy Clendennen

Life science awards given to four

BY ANDY CLENDENNEN

Four individuals or entities with University connections recently were given Missouri Excellence in Life Science Awards from the Missouri Biotechnology Association.

Philip Needleman, Ph.D., associate dean for special research projects in the School of Medicine, received the lifetime achievement award for excellence in life sciences. Needleman first came to the medical school as a postdoctoral fellow in 1964. He rose to chair the Department of Pharmacology from 1976-1989.

He left the medical school in 1989 and through a series of promotions became senior executive vice president, chief scientific officer and chairman of research and development at Pharmacia Corp. (formerly Monsanto/Searle), a position he held until this year.

Garland R. Marshall, Ph.D., professor of biochemistry and molecular biophysics, received an award for excellence in life sciences entrepreneurship. Marshall formerly directed the Center for Molecular Design in the Institute for Biomedical Computing.

He is a founding member of the newly formed Center for Computational Biology, a joint effort by the departments of Biochemistry and Molecular Biophysics, of Biomedical Engineering and of Genetics. Upon his arrival at the University in 1966, Marshall constructed the second automated peptide synthesizer; the first being on display at the Smithsonian Institution in Washington, D.C.

The **Alvin J. Siteman Cancer Center** at the School of Medicine and Barnes-Jewish Hospital received an award for program center of excellence.

The **Coalition for Plant and Life Sciences**, chaired by **William Danforth**, chancellor emeritus and vice chairman of the Board of Trustees, received an award for excellence in bioinvestment. The award recognized the organization for furthering economic and workforce development by making financial investments in the life sciences sector.

The Jefferson City-based Missouri Biotechnology Association is a nonprofit trade association dedicated to development and growth of the Missouri biotechnology and biomedical industry.

Record

Founded in 1905
Washington University community news

Editor Kevin M. Kiley
Associate Editor Andy Clendennen
Assistant Editor Neil Schoenherr
Associate Vice Chancellor Judith Jasper Leicht
Executive Editor Susan Killenberg McGinn
Medical News Editor Kimberly Leydig
Production Carl Jacobs

News & Comments
(314) 935-6603
Campus Box 1070
kiley@wustl.edu

Medical News
(314) 286-0119
Campus Box 8508
leydigk@msnotes.wustl.edu

Record (USPS 600-430; ISSN 1043-0520), Volume 28, Number 19/Jan. 30, 2004. Published for the faculty, staff and friends of Washington University. Produced weekly during the school year, except school holidays, and monthly during June, July and August by the Office of Public Affairs, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, MO 63130. Periodicals postage paid at St. Louis, MO.

Where to send address changes

Postmaster and nonemployees Record, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, MO 63130.

Employees Office of Human Resources, Washington University, Campus Box 1184, One Brookings Drive, St. Louis, MO 63130.

Washington University in St. Louis

Washington People

BOB BOSTON

Alexander Dromerick, M.D., associate professor of neurology, of occupational therapy and of physical therapy, reviews CT scans of a patient with a severe brain injury with neurology resident Yibing Li, M.D.

Putting people first

By studying the brain and the body, Alexander W. Dromerick gets to the heart of what makes us unique

BY JULIE MARDER

Growing up practically next door to the National Institutes of Health, Alexander W. Dromerick, M.D., became fascinated with science at a young age. But it wasn't long before he realized that the people behind the science are what ultimately motivate him.

His commitment to patient care was further reinforced by his own experience as a critically ill patient. By battling bone cancer while making his way through medical school, he experienced life as a patient while simultaneously learning to be a doctor. And that allowed him to gain a profound insight into health care.

"My oncologist did a great job of curing my cancer, but the folks in rehabilitation really helped me a lot, both as a patient and as a doctor," Dromerick says. "They helped me understand that it takes more than medication to take good care of a sick person."

Now as an associate professor of neurology, of occupational therapy and of physical therapy, Dromerick has found an ideal way to channel his love of science toward caring for people.

"When I saw patients with cognitive impairment from various brain injuries, particularly stroke, I realized that neurology gets at issues of what makes us unique," Dromerick says. "Who you are is not in your heart — you can replace that — and you're still you. The brain is what defines us as human beings."

The road to rehabilitation

While never steering him strongly in one direction, Dromerick's parents encouraged their son's budding interest in science by providing him with books on biology and astronomy. By the time he was a junior in high school, Dromerick was eager to accept a research job at the NIH.

"There was just no looking back by that point," Dromerick says. "By then, it was pretty clear that the medical route was the one I wanted to take."

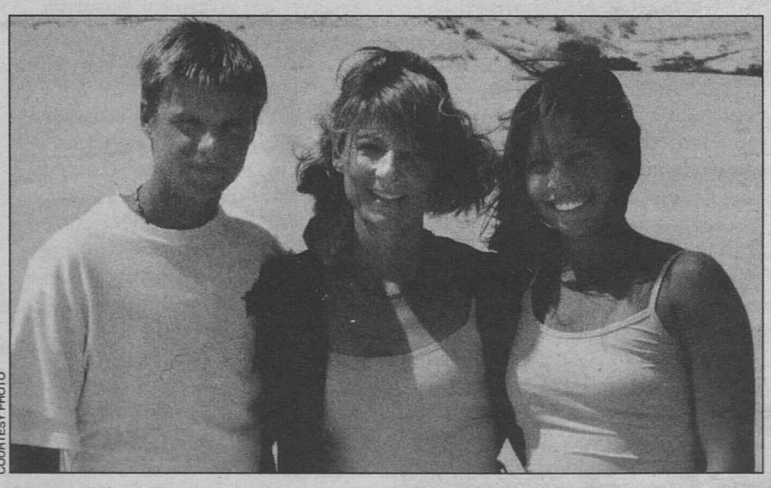
As the next logical step along his journey to medical school, Dromerick attended the University of Virginia where he studied biology and conducted laboratory research under Nobel Prize winner Alfred Gilman M.D., Ph.D.

"The job was actually horrible because I had to go to the slaughter house every three months and collect a few liters of turkey blood from these animals that would later become Thanksgiving dinner," Dromerick recalls.

Despite the sometimes morbid nature of his work, his position in Gilman's laboratory was an invaluable experience because it taught him how to analyze problems and develop testable hypotheses. But Dromerick's academic focus shifted when he began working with patients in medical school at the University of Maryland.

During his neurology fellowship at Cornell University, Dromerick pursued his newfound fascination with clinical neurology by electing to do a rotation in a rehabilitation center, where he cared for people who had experienced brain trauma. There, his experiences as a patient, a clinician and a laboratory scientist converged.

"I had this sort of gut reaction: 'This is what I want to do,'" Dromerick says. "There are very few 'ah ha!' moments in life, but that was one of mine."



COURTESY PHOTO

Alexander Dromerick's family — son, Michael; wife, Laurie Dinzebach; and daughter, Emma — on vacation in South Carolina.

Compassionate care

Excited to begin his career in an entirely unfamiliar part of the country, Dromerick eagerly interviewed at Washington University and had another rare 'ah ha' moment, immediately realizing this was the place he wanted to be.

Dromerick was thrilled to find both exceptional resources and a welcoming environment upon his arrival in 1994.

As part of the University's neuroscience, physical therapy and occupational therapy teams, Dromerick has been able to successfully serve his patients through a combination of clinical practice and research, emulating the exceptional standard of patient care he was so grateful to receive when he was a cancer patient.

"He is an excellent team player and facilitator, and he has a great deal of respect for people from all different disciplines, which enables his patients to receive the best care," says Carolyn M. Baum, Ph.D., professor of occupational therapy and of neurology and a longtime colleague of Dromerick's. "He is dedicated to bridging the understanding of brain function and rehabilitation interventions to develop the best possible treatments for people with brain injury."

Although he spends a significant amount of time seeing patients at the St. Louis Rehabilitation Hospital and the Barnes Extended Care Clinic, Dromerick describes his primary role as a patient-oriented investigator, who studies the brain and the body and continues to question what makes a person unique.

> **"He is an excellent team player and facilitator, and he has a great deal of respect for people from all different disciplines, which enables his patients to receive the best care."**
>
> CAROLYN M. BAUM

Specializing in neurological rehabilitation allowed him to explore the scientific and philosophical role of the brain while providing him the opportunity to interact with patients and their families because many of them needed continual care.

Because neuro-rehabilitation remains a relatively uncharted field, it offers Dromerick a wide range of research opportunities that can profoundly contribute to the growth of the field.

"It's a big playground for someone like me," he says. "I can spin my research in any direction and find important questions that need to be answered."

To that end, Dromerick collaborates with other University researchers as part of the Cognitive Rehabilitation Research Group, funded by the McDonnell Foundation. With Dromerick and Baum as co-principal investigators, this group combines experts in the fields of neurology, radiology, psychology, occupational therapy and physical therapy to investigate how brain injury results in problems with thinking, memory and interacting with the surrounding world.

Dromerick also tests new treatment and rehabilitation approaches for paralyzed individuals and researches ways to improve the quality of life for these patients. For instance, he is testing whether constraint-induced movement therapy (CIMT) may be more effective than traditional therapy in treating arm weakness caused by stroke.

Traditionally, stroke patients are taught how to compensate for the weakened limb by strengthening the unaffected arm. In contrast, CIMT encourages use of the weak arm by restraining the stronger one in a padded glove for most of the day. By using the weak arm, Dromerick believes patients might be able to re-train the brain to effectively use the limb.

"Dr. Dromerick is a leader in maximizing our reputation as a good place to come for neurological disease," says William M. Landau, M.D., professor of neurology and former head of the Department of Neurology. "So many of our patients have long-term disabilities, and his critical effort minimizes these disabilities and promotes an improved outcome for the patient."

At work, Dromerick's injured patients help him understand human mental and physical abilities. At home, his new family helps him understand what it's like to be a kid again.

After working at the Medical Center for nearly five years, Dromerick met his wife, Laurie Dinzebach, then a health-care administrator at BJC. The couple now lives in Webster Groves, Mo., with Laurie's two children, Emma, 21, and Michael, 17.

"I watch MTV, listen to teenage music and have a different perspective than I might have otherwise," he says. "It's a lot of fun to watch the kids grow and evolve as individuals and to know that I've had an influence on that."

As both a parent and a doctor, Dromerick has the privilege of not only watching people thrive as their lives positively progress, but he also has the opportunity to help them when things go wrong.

"Helping patients work through cognitive impairments from various brain injuries allows me the opportunity to get to the core of who we are as people," he says. "Our brain shapes who we are — it's what makes us individuals."

Alexander W. Dromerick

Degrees: Bachelor's, 1980, University of Virginia; doctorate, 1986, University of Maryland

University positions: Associate professor of neurology, of occupational therapy and of physical therapy, co-director of the Washington University Stroke Center and medical director of Rehabilitation Services at Barnes-Jewish Hospital

Family: Wife, Laurie; stepchildren, Emma, 21, and Michael, 17

Hobbies: Traveling, especially in Europe and to the same beach resort in Nags Head, S.C. He also enjoys cycling, cooking and attending puppy class with their new dog, Aidan. And home brewing — "Beer is more fun to make than cupcakes."

Hometown: Washington, D.C.