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Record

Sept. 21, 2001

Volume 26 No. 5



Washington University in St. Louis

University responds in wake of tragedy

By NEIL SCHOENHERR

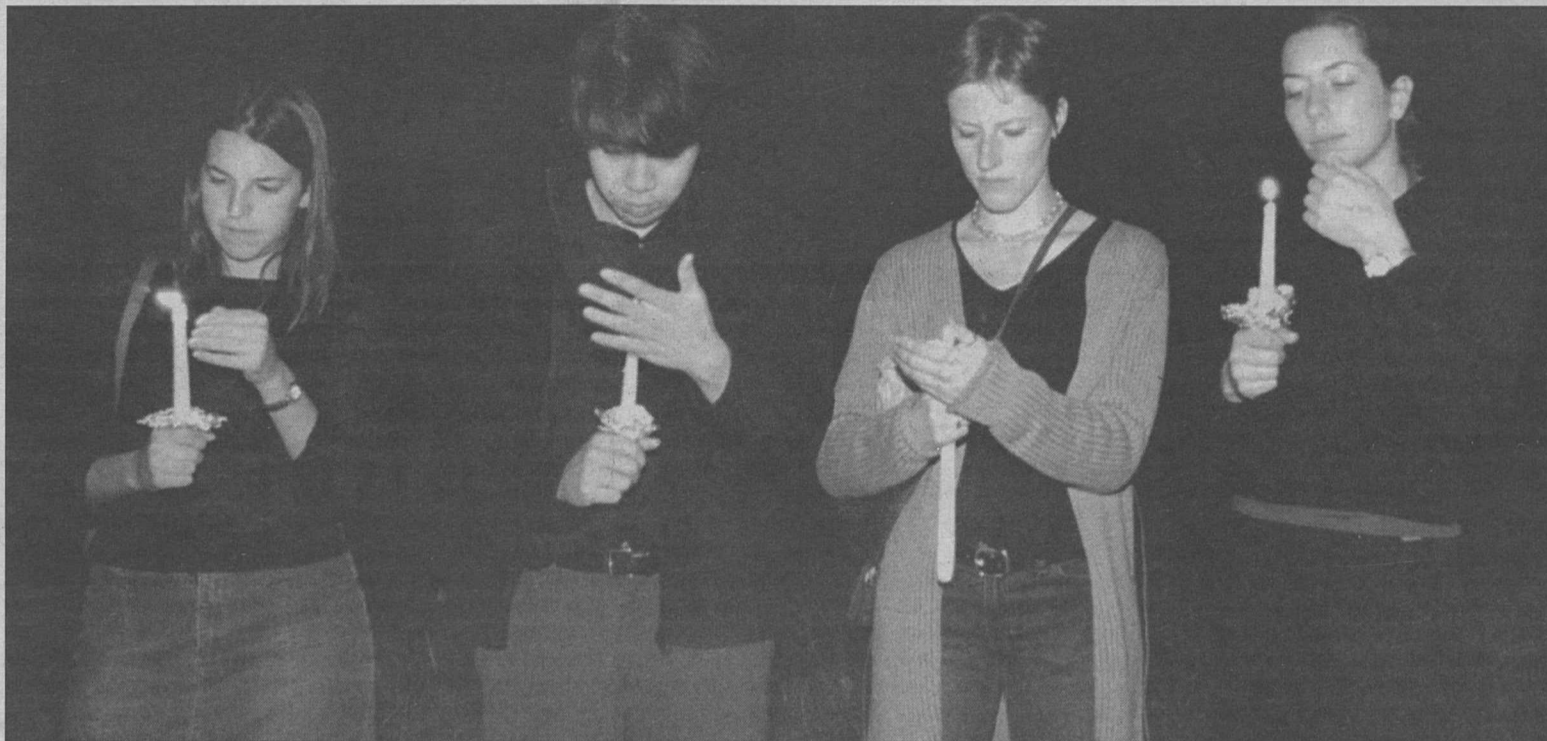
The events of Sept. 11 will be forever etched in our hearts and minds. It was a day that will have a profound and lasting effect on our nation for years to come.

Members of the University community are coming together to help each other and to help those in need.

After hearing about the attacks, senior French and mechanical engineering double major Allison Ball helped organize a group of approximately 60 engineering students to give blood at a local drive.

"We walked out to the main sitting area in engineering student services and started to recognize the stricken faces of friends in the engineering school, with time on their hands and nothing to do, since classes had been canceled," said Ball, president of the Society of Women Engineers and peer-advising coordinator for the School of Engineering and Applied Science. "So, we did the only constructive thing we could do: We decided to give blood."

Ball's group went to the Lutheran Church of the Resurrection in Sappington, Mo. The church's pastor was so moved by the students' courage that he



First-year medical students Anne Berenbom, Franklin Huang, Amy Riek and Elizabeth Foglia pause and reflect during a candlelight vigil Sept. 14 in Forest Park. Second-year medical student Jessica Pittman organized the event.

thanked them from the pulpit during Sunday services. He said the students gave him great hope for the future of our country.

That same attitude of caring and kindness in the face of tragedy has prevailed at the University in the midst of the

sadness. Blood drives have been scheduled. Counseling sessions have started. Food and money has been donated.

"The Washington University community has really come together in response to the

See **Response**, Page 2

More coverage inside

- Students, faculty get involved in relief efforts; information on getting help. **Page 2**
- Photos: Candlelight vigils, blood drives, ceremonies and remembrances. **Page 6**
- Analysis from two faculty experts, Victor T. Le Vine and Carol S. North. **Page 7**

United Way kicks off campaign

By JESSICA N. ROBERTS

For the past 113 years, the United Way has helped meet the health and human care needs of millions of people through its network of volunteers and community service agencies. In order to achieve its mission of organizing people to care for one another, the United Way supports agencies with programs and services that nurture and protect children, strengthen families, provide education and job training, assist persons with disabilities and care for the elderly.

This year's annual campus fund drive for the United Way of Greater St. Louis is now under way. Last year, the generosity of faculty and staff allowed the University to surpass its \$425,000 goal.

The goal for this year's campaign has been set at \$435,000, according to Chancellor Mark S. Wrighton.

"The United Way provides numerous resources for both the St. Louis and University communities," Wrighton said. "While the United Way helps those who are most in need of help, the agency also aids children, elderly parents and many of our own co-workers, regardless of financial situation."

"The support of the 9,500

See **United Way**, Page 5



A dance treasure Dancer and choreographer Donald McKayle (center), a Distinguished Visiting Scholar at the University Sept. 5-15, drills students from "Modern Dance and the African-American Legacy" in his solo "Angelitos negros (Little Black Angels)." McKayle, whose career spans Broadway, television and film, was recently named one of "America's Irreplaceable Dance Treasures" by the Library of Congress and the Dance Heritage Coalition.

Pre-Neandertals developed social skills earlier than thought

By SUSAN KILLENBERG MCGINN

If your image of a Neandertal is of a crude, uncaring brute, think again.

Teeth and jaw fossils found last year in southeastern France not only reinforce perceptions about how our Neandertal ancestors developed physically, but also suggest that their social and technological development was much more advanced than previously documented.

An international team of scientists, including Erik Trinkaus, Ph.D., professor of anthropology in Arts & Sciences,

studied two ancient teeth and a large segment of a lower jaw.

The team's findings, which will appear in the Sept. 25 issue of the journal *Proceedings of the National Academy of Sciences* (PNAS), extend the record of early people taking care of

Trinkaus

other community members as far back as 175,000 years ago. The article is also posted on the PNAS Web site, www.pnas.org.

The fossils, from three different humans estimated to be about 175,000 years old (from the Middle Pleistocene period), show a stage of evolutionary development that led to the Neandertals that appeared in Europe between 50,000 to 100,000 years ago. Serge Lebel, Ph.D., associate professor in the earth sciences department at the University of Quebec in Montreal, led the team that found the fossils in the *Bau de l'Aubessier*, a large rock shelter in Monieux, Vaucluse, France.

As humans spread across the Old World, they acquired regional See **Neandertal**, Page 5

School of Art announces fall lecture series

By LIAM OTTEN

An array of nationally known visual artists will present their work at the University this fall as part of the School of Art's Visiting Artist Lecture Series.

All lectures are free and open to the public and begin at 7:30 p.m. in Steinberg Auditorium.

The series kicks off Wednesday with digital artist **Zoe Beloff**, whose work investigates cinematic imagery through a variety of mediums, including film, stereoscopic projection and interactive media. Her CD-ROMs "Beyond" and "Where, Where, There, There, Where" explore themes of technology, desire, the paranormal and the birth of mechanical reproduction, while also examining the links between early cinema and the modern digital realm.

Beloff has collaborated with artists from numerous disciplines, including composer John Cale and sound artist Ken Montgomery, and her work has been exhibited at the Whitney Museum of American Art, New York; The Wexner Center in

See **Art series**, Page 5

Art lecture series

Wednesday: Zoe Beloff

Oct. 25: Laylah Ali

Nov. 7: Tony Hepburn

Nov. 21: Lane Hall & Lisa Moline

Olin students chip in with their support

By ROBERT BATTERSON

A fund-raising drive at the Olin School of Business for the Red Cross' "September 11 Fund" started Monday with a goal to raise \$1,000. At presstime, the drive had already netted more than \$2,100.

Second-year master of business administration student Aaron Boyll hatched the idea for the fund drive while he was driving to Minneapolis to pick up his wife, who was stranded there while traveling on business during the Sept. 11 terrorist attacks.

"I had 10 hours to think about what everyone is doing to help, and I thought, 'What's stopping Olin?'" Boyll said.

By Sept. 14, he had the full support of Olin School Dean Stuart I. Greenbaum, Ph.D., and had put together an Olin team



Student Cathi Martarella donates to the Olin School of Business' fund-raising drive for the Red Cross' "September 11 Fund" Tuesday in Simon Hall. Working the table are Graduate Business Student Association members Kara Chmielewski and Charnsin Tulyasathien.

from the business school's Graduate Business Student Association (GBSA) to help coordinate and schedule the fund-raising drive. Olin M.B.A. students Laura Vance, Charnsin Tulyasathien, Reetika Aulakh, and GBSA President Angela Proctor formed the nucleus of the team.

The fund drive ran through this week in Simon Hall.

To give to Olin's September 11 Red Cross fund, checks made payable to Washington University should be sent to Sarah Melson, Director of MBA Student Services, Campus Box 1133, through Sept. 28. Funds will be remitted through the University to the Red Cross.

For more information, contact Melson at 935-8391.

also be accepted. For more information, contact Lamira Martin at 935-6963.

Law school

Members of the National Association for Public Interest Law (NAPIL) have decided to donate 10 percent of profits from its 6 a.m.-3 p.m. garage sale Saturday in front of Anheuser-Busch Hall to help with disaster relief in those cities. The remaining money raised will help fund summer stipends to help cover basic living costs for students pursuing otherwise unpaid positions in public interest law.

Donation boxes for the garage sale are located in the commons area of Anheuser-Busch Hall. If you have an item that is too large to fit in the boxes, please contact Jen Grudnowski at jagrudno@wulaw.wustl.edu or Suzanne Stephenson at sestephe@wulaw.wustl.edu.

NAPIL will also collect donations for the disaster relief effort at the garage sale. The rain location is in the parking garage behind the law school.

Other efforts

Students at the George Warren Brown School of Social Work (GWB) have been involved in the disaster relief effort through blood donations and by taking up a monetary collection for the Red Cross.

GWB Dean Shanti K. Khinduka, Ph.D., the George Warren Brown Distinguished University Professor, also has hosted a number of informal meetings with the GWB community to offer a forum for discussion and ongoing support and counseling.

The Campus Y, in conjunction with the American Red Cross and Chesterfield Fire Department, participated in "Reach out America" Sunday from 9 a.m.-noon in the parking lot in front of Brookings Hall. The group collected juice boxes and prepackaged snacks for the American Red Cross to send to all of their blood drives across the country.

The group also raised \$1,800 for the Backstoppers and the New York Firefighters 9-11 Relief Fund.

The Campus Y is continuing to collect donations at its office in the eastern end of Umrath Hall.

The September 11th Fund continues to provide immediate support to established emergency assistance agencies such as the American Red Cross. Donors may specify the community (New York City, Washington, D.C., or other affected areas) where they would like their contributions to help.

The address for donations is: September 11th Fund, c/o United Way of New York City, 2 Park Ave., New York, NY 10016.

Law's Aiken works to establish new Collaborative Clinic on Human Rights

By ANN NICHOLSON

Jane Aiken, J.D., professor of law, has received a grant from the J. William Fulbright Foreign Scholarship Board to develop a clinical education partnership between the School of Law and Tribhuvan University in Katmandu, Nepal.

Director of the law school's Civil Justice Clinic, Aiken is spending the fall semester in Nepal working to establish a new Collaborative Clinic on Human Rights. She also is teaching classes on feminist jurisprudence, equality and civil rights, particularly the rights of women, people with HIV/AIDS and political dissidents.

The clinical education project builds upon the interdisciplinary Social Policy in Law Program, which Gautam N. Yadama, Ph.D., associate professor in the George Warren Brown School of Social Work, established in 1999 between Tribhuvan and Washington universities. Under that program, Washington University social work and law students have pursued international development and research internships in Nepal, while Nepali law students have received intensive social policy and legal advocacy training through a new curriculum created by Yadama and Tribhuvan law faculty.

Additionally, four Nepali law students are here this semester participating in Washington University's legal clinical education program.

Under the latest phase of the partnership, Aiken is laying the groundwork with Tribhuvan law faculty for the new Collaborative Clinic on Human Rights. The Nepal-based clinic will provide master's degree-level Tribhuvan law students with opportunities to pursue progressive social policy initiatives and litigation to benefit Nepali women, children and other marginalized groups.

The clinic also will enable Washington University law and social work students to assist with international policy and legislative initiatives through additional internships in Nepal and through an Internet-based system for communicating about clinic cases and research.

"Nepal's emerging democracy is providing lawyers there with an unprecedented opportunity to use their legal skills to assist in the implementation of the constitutional government and to enhance human rights in that country," Aiken said. "The new clinic will provide Tribhuvan law students

with hands-on training, as they work with clients on specific public interest concerns, including access to education and reproductive health services, domestic-violence protections, combating sexual trafficking and prostitution, and addressing child labor issues.

"The overall goal is to create a pool of legal talent to work on these and other human rights issues that may not be financially or politically feasible for private lawyers to pursue, but are of critical importance to the poor and disenfranchised in Nepal," Aiken added.

At the same time, the new partnership will offer an international perspective to students in the Civil Justice Clinic, who currently provide legal services and work on policy initiatives related to St. Louis-area women and children who are victims of domestic violence. Through e-mail and teleconferencing, students at both universities will be able to work jointly on the Nepali clinic's cases, as they brainstorm on legal issues, discuss comparative law approaches, share legal research and formulate

legislative and legal strategies for the clinic to pursue.

"Washington University clinic students will have the opportunity to become directly involved in another culture and country that is in the process of forming policies for the future of its constitutional democracy," Aiken said. "Working on global human rights issues will not only assist the Nepali clinic, but also enhance our students' training in promoting social justice the United States."

Social work students and dual-degree law and social work students will be able to lend their expertise on social policy and economic development practices that can best guide the new legislative initiatives in Nepal, Aiken said.

Additionally, Aiken plans to create an Internet database on other nations' attempts to make government responsive to the needs of its people. The database will draw heavily from the law school library's wealth of resources.

"It will be a chance to learn from our and others' successes and mistakes in establishing human rights policies and legislation, while helping the Nepali clinic address immediate public interest concerns," Aiken said. "We hope the database also will assist other nations struggling with the implementation of similar human rights initiatives."



Aiken

Response

— from Page 1

horrific events of Tuesday, Sept. 11," said Jill Carnaghi, assistant vice chancellor of students and director of campus life. "Students, staff and faculty have been there to support each other; to pray for the victims, their families and rescuers; to call and offer assistance in any way that may be needed; and to make many suggestions for various service projects to benefit those most in need."

Chancellor Mark S. Wrighton said he is extremely pleased at the outpouring of support by the University.

"As this tragic week draws to a close and the nation observes a day of mourning and prayer, I want to thank everyone in this community for the very reassuring and supportive response during the past several days," Wrighton said Sept. 14. "From candlelight vigils to blood drives to counseling sessions and informal groups of friends just listening to and comforting each other, I am proud to be affiliated with such caring people."

Here is a partial list of various relief efforts that have taken place or are coming up on campus.

Engineering school

The Engineering Student Council (EnCouncil) took initiatives to support our University family and the American Red Cross. Within an hour of the first World Trade Center plane crash, EnCouncil established a support center at the engineering student services office. The center was open to members of the University community who wished to discuss issues, receive or offer support, or just to be near other people.

EnCouncil also began to shuttle student volunteers to local emergency blood drives. As a result of their efforts, combined with the efforts of several other student groups, University students were responsible for 25 percent of the donated blood in the St. Louis area. EnCouncil also raised \$650 for the Disaster Relief Fund of the American Red Cross.

There will be a barbecue fundraiser sponsored by the engineer-

Getting help

In the aftermath of the tragic events of Sept. 11, the University's Office of Human Resources would like to remind faculty and staff of the Employee Assistance Program (EAP) available to them.

The EAP, a benefit introduced in July, is designed to help benefits-eligible faculty, staff and their immediate family members deal with issues that may negatively impact them personally and professionally. The EAP provides up to five confidential counseling sessions, per issue, at no cost to the faculty or staff member using the benefit.

For more information about the EAP, call 1-800-765-9124.

Students seeking counseling are encouraged to call the Student Counseling Service — 935-6695, or 935-6667 after business hours — or Uncle Joe's Peer Counseling at 935-5099.

ing school from noon-1:30 p.m. Monday outside of the Sever Institute of Technology. Hot dogs and chips will be available for \$1. All profits will be given to the New York Backstoppers, an organization that supports the families of deceased New York firefighters and police officers.

Olin School of Business

A Web site has been prepared for Olin School of Business alumni to post information about the welfare of fellow business school members who might have been affected by the tragedies.

The Web site consists of a searchable alumni status page that displays information on the welfare of individuals and an alumni status input page for entering data.

"Our thoughts and prayers go out to our alumni who have been in the midst of the terrible events of Sept. 11th," said Olin School Dean Stuart I. Greenbaum, Ph.D. "We thought it might be of some help to offer a Web site for gathering and disseminating information concerning the welfare of our New York and Washington, D.C., alumni."

The URL for the alumni status page is: <http://www.olin.wustl.edu/forms/status/olinstatussearch.cfm>. The URL for the alumni status input page is: <http://www.olin.wustl.edu/forms/status/olincheckin.cfm>.

A bake sale Oct. 24 in Simon Hall will benefit the United Way's "September 11th Fund." Donations of baked goods and volunteers to sell them are both needed. Monetary donations will

"... clinic students will have the opportunity to become directly involved in another culture and country that is in the process of forming policies for the future of its constitutional democracy."

JANE AIKEN

Record

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Washington University in St. Louis

Assembly Series

The Assembly Series will present "Perspectives on World Terrorism," a forum featuring University experts, at 11 a.m. Wednesday in Graham Chapel. The event is free and open to the public.

Medical School Update

Newly recognized side effect complicates AIDS drug cocktail

BY GILA Z. RECKESS

The standard treatment for AIDS is a potent multi-drug "cocktail" that successfully checks this deadly viral assault on the immune system.

Unfortunately, it's getting harder to swallow. That's why researchers at the School of Medicine's AIDS Clinical Trials Unit (ACTU) are paying particular attention to the side effects of this life-changing treatment.

When the first cocktail component (nucleoside analogs, such as AZT) was introduced in 1987, scientists were optimistic. But patients with human immunodeficiency virus (HIV), the precursor to acquired immunodeficiency syndrome (AIDS), stopped responding to the medication after just one year of continuous use.

In the following years, two new classes of drugs were approved quickly by the Food and Drug Administration (FDA): non-nucleoside reverse transcriptase inhibitors and protease inhibitors. By 1995, the FDA recognized that combining drugs from these three classes crippled the virus' ability to replicate. The result was highly active antiretroviral therapy, commonly known as the AIDS drug cocktail.

Thanks to the cocktail, people with AIDS now are living considerably longer and healthier lives than before. But the treatment falls short

of physicians' initial expectations. The new drugs may be able to control the virus, but they cannot eliminate it. Researchers have thus far conceded that patients will have to remain on medication for the rest of their lives.

And, as has happened with the first cocktail component when taken alone, continuous long-term use of the cocktail could result in the development of drug-resistant strains of the disease if patients don't adhere strictly to the drug regimen.

The drugs also may not be risk-free, as previously thought. In 1997, experts at the medical school's ACTU and at other centers started to notice a dangerous pattern of metabolic changes, such as insulin resistance and high cholesterol; today, these changes are found in roughly half of all patients on the cocktail. If these effects, a disorder collectively termed as lipodystrophy, continue to intensify as expected, researchers predict persons taking the cocktail eventually will experience a marked increase in life-threatening complications such as diabetes, heart disease and stroke.

Patients with lipodystrophy exhibit at least two of the disorder's three main symptoms: insulin resistance, the precursor to diabetes; cholesterol or high triglycerides, which often lead to heart disease and stroke; and a unique pattern of fat distribution.

Patients with the disorder lose fat from their extremities and their faces, and they gain fat inside the abdomen itself, instead of just below the skin surface and outside the abdominal wall, as in normal weight gain.

The exact cause of lipodystrophy is unclear. What is known is that HIV makes copies of itself that then invade other cells. The virus recruits each corrupted cell along the way in a pattern of continuous replication. As patients live longer with the cocktail's help, the virus has more time to wreak havoc. Also, many HIV-positive patients are co-infected with other diseases such as hepatitis B. As they survive longer, these secondary infections also have more time to affect metabolism.

But neither of these theories fully explains the sudden increased incidence of lipodystrophy noted in the past few years, coincident with introduction of the third cocktail component,

protease inhibitors.

"We believe that the body takes a series of hits," said Kevin E. Yarasheski, Ph.D., associate professor of medicine, "and that the toxic effects of the anti-HIV drugs and infection with HIV accumulate over the course of the disease."

Scientists propose that protease inhibitors in and of themselves do not cause lipodystrophy. But, when taken in conjunction with this sequence of "hits," they may trigger undesirable physical and biochemical changes in the body.

ACTU researcher William G. Powderly, M.D., co-director of the division of infectious diseases and professor of medicine, assembled a team led by himself, Yarasheski and Samuel Klein, M.D., the Danforth Professor of Medicine and Nutritional Science, to investigate this emerging problem.

The team plans to analyze muscle and fat tissue samples from lipodystrophy patients and

compare them with samples obtained from HIV-infected individuals who are not experiencing metabolic changes. They also will examine the contribution of protease inhibitors to these metabolic changes by carefully altering the components of the cocktail in certain individuals experiencing side effects.

"If we determine the mechanisms underlying the cause of lipodystrophy in HIV-infected patients, we may be able to develop specific therapies for these complications or, even better, help to design drugs that target the virus but avoid these effects," Powderly said. "The other spin-off is that this is a model system for very common disorders, such as diabetes and high cholesterol, in individuals who are not HIV-positive. We can use these new drugs to gain a glimpse of metabolic processes in normal, healthy individuals that we otherwise might not have found."

Marshall receives Merrifield award for peptide research

BY JIM DRYDEN

Garland R. Marshall, Ph.D., professor of biochemistry and molecular biophysics and of biomedical engineering and resident member of the Center for Computational Biology at the University, has received the Bruce Merrifield Award.

Sponsored by the American Peptide Society, the award is named in honor of R. Bruce Merrifield, Ph.D., a recipient of the 1984 Nobel Prize in chemistry and a professor at Rockefeller University. Marshall was Merrifield's first graduate student.

The Merrifield award is given for outstanding career achievement in peptide research. Peptides are medically important chains of amino acids.

"The Bruce Merrifield Award is a special honor for me because I was one of Professor Merrifield's graduate students," Marshall said. "In addition, the symposia this year included a special session in honor of Professor Merrifield's 80th birthday, so it was particularly significant for me to receive the award at a time when this important mentor of mine was being honored, too."

Marshall worked in Merrifield's lab during the initial development of an important new way to synthesize peptides. The new chemical approach allowed the routine synthesis of peptides and later, small proteins. Ultimately, it began a revolution in molecular biology, enabling scientists to routinely synthesize other biopolymers such as nucleic acids and oligosaccharides, important combinations of sugars.

Following his work with Merrifield, Marshall joined the faculty at the School of Medicine

in 1966. He became a full professor in 1976.

Today, he is internationally known for his own work with peptides. He first described a peptide inhibitor of angiotensin II, a hormone involved in hypertension. He led the exploration into important receptors for biologically active peptides, and he pioneered the development of HIV protease inhibitors. In fact, his lab created MVT-101, an inhibitor that was used to produce the first crystal structure of the HIV protease enzyme combined with an inhibitor.

He also played an important role in developing molecular modeling and associated computer graphics for three-dimensional studies of molecules and the design of novel therapeutics. Beginning in 1967, Marshall and his

colleagues at the University began writing algorithms that allowed analysis of three-dimensional structures of sets of molecules active at the same receptor. They used these analyses to make models that guided the synthesis of potential new drugs. In 1979, Marshall founded a company called Tripos that continues to develop and market software in this area.

In the last few years, Marshall also has become interested in the modeling of metals in biological systems. In 1995 he founded MetaPhore Pharmaceuticals, a company that develops novel ligands for metals that might have therapeutic applications. One of the substances developed by that company entered clinical trials earlier this year.

The Merrifield award was presented in June at the combined Second International Peptide Symposium and 17th American Peptide Symposium in San Diego.



Marshall: Professor of biochemistry



Body art (From left) Medical student Wei Ling Lau, Jane E. Phillips-Conroy, Ph.D., professor of anatomy and neurobiology in the School of Medicine and of anthropology in Arts & Sciences, Bernard Becker, M.D., professor emeritus of ophthalmology and visual sciences, and medical student Megan McCarville view a display of ancient anatomy books in the Bernard Becker Medical Library. The display, mounted and interpreted by Rare Book Librarian Lilla Vekerdy for first-year medical students, features a nearly complete history of anatomical art from the 13th century to the early 20th century.

New Department of Radiation Oncology formed

BY DARRELL E. WARD

The School of Medicine has established a new Department of Radiation Oncology. The new department, formerly a division within the school's Mallinckrodt Institute of Radiology, will provide cancer-related patient care, teaching and research.

The department will work closely with the Mallinckrodt Institute and with the new Alvin J. Siteman Cancer Center at Washington University School of Medicine and Barnes-Jewish Hospital.

"We are really excited about this development," said Carlos Perez, M.D., professor of radiation oncology and chair of the new department. "We look forward to working even more closely with the Siteman Cancer Center, Barnes-Jewish Hospital and the School of Medicine to strengthen the medical center's comprehensive oncology programs and to enhance our leadership in oncology in the Midwest and in the nation. Our historical ties with the Mallinckrodt Institute will continue and be a strength as we move forward."

The move reflects the ascending role of radiation oncology in the treatment of cancer.

"Radiation oncology is more important than ever in cancer care," Perez said. "The growth has come because computers have become faster, cheaper and more efficient; because advances in physics and electronics enable us to plan and deliver treatment much more precisely and efficiently; and because radiation therapy significantly improves outcomes in patients with cancer."

With more than 200 faculty and staff, the Department of Radiation Oncology is one of the largest and most well-developed in the country, Perez said.

"It is timely for this excellent program, previously a department in essence, to receive departmental status to enhance its opportunities for expansion of its clinical, teaching and research missions," said William A. Peck, M.D., executive vice chancellor for medical affairs and dean of the medical school.

The new department has four divisions. The Clinical Division provides treatment for patients and conducts clinical trials; the

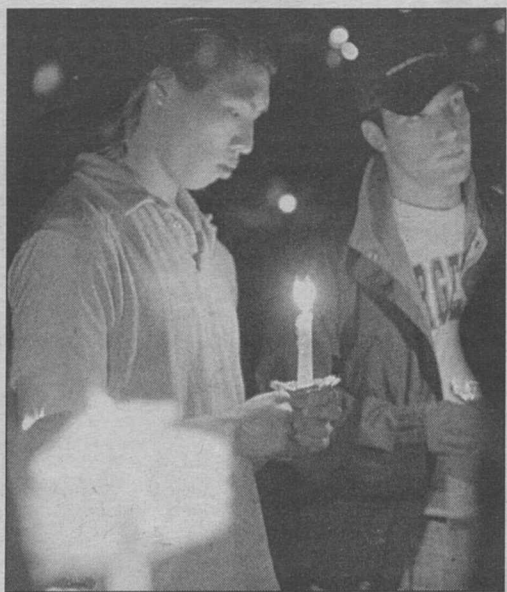
Cancer Biology Division conducts research relating to the effects and interactions of radiation, heat (hyperthermia) and cytotoxic agents on cells; the Physics Division is responsible for treatment planning, equipment development and research on the physics of radiation oncology. Last, the Administration and Information Systems Division maintains computer services and information systems, including a large database of treatment information.

Perez is excited about the future.

"We're going to have one of the most beautiful, convenient clinical facilities in the country with the new Siteman Cancer Center," he said. The cancer center will be located in the new Center for Advanced Medicine building at the corner of Forest Park and Euclid avenues.

Perez has been on the faculty of the medical school for 36 years. With this change, he becomes a member of the medical school's executive faculty. Perez postponed his announced retirement to accept the role as head of the new department.

University responds to national tragedy



BOB BOSTON



MARY BUTTUS

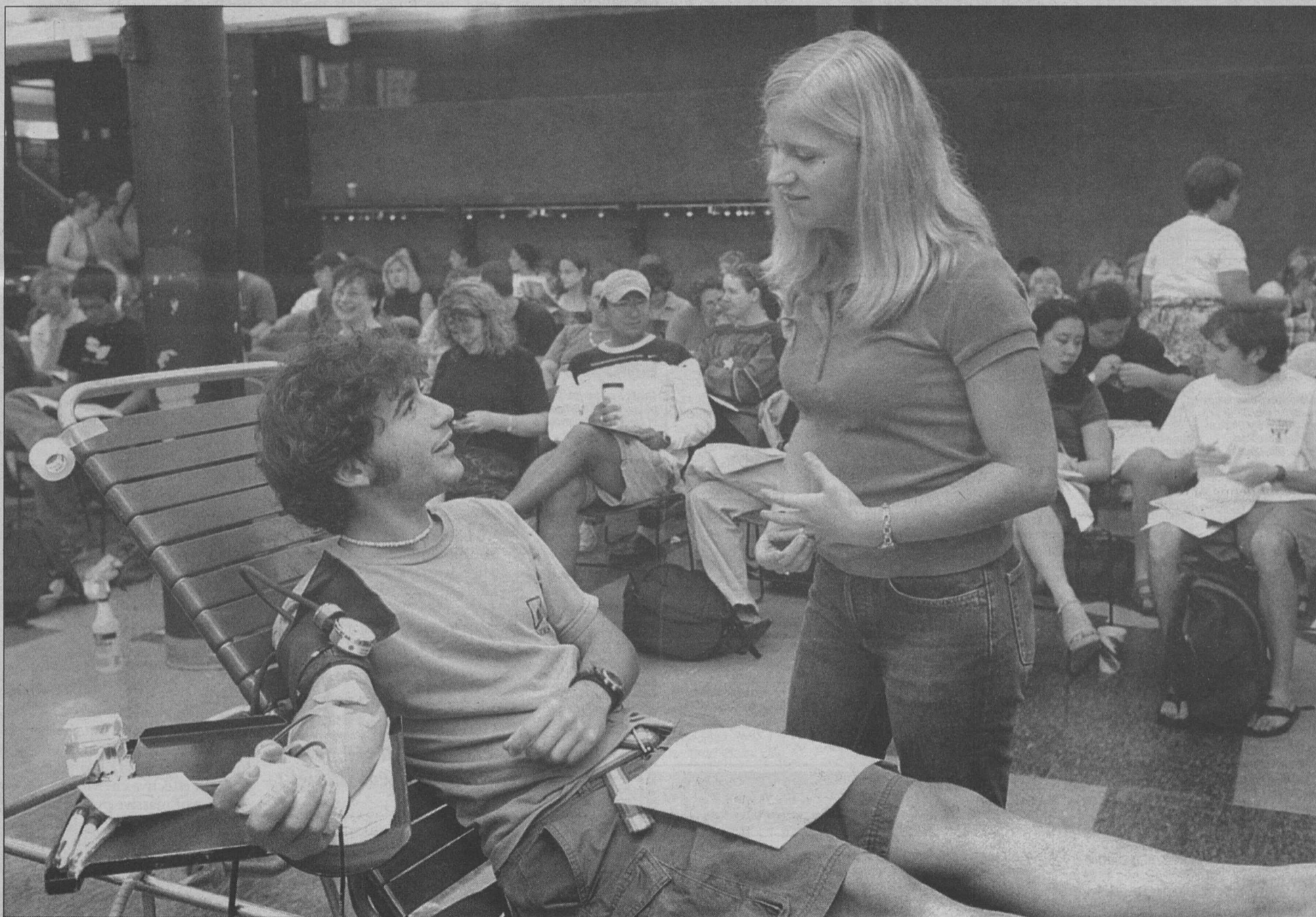


BOB BOSTON

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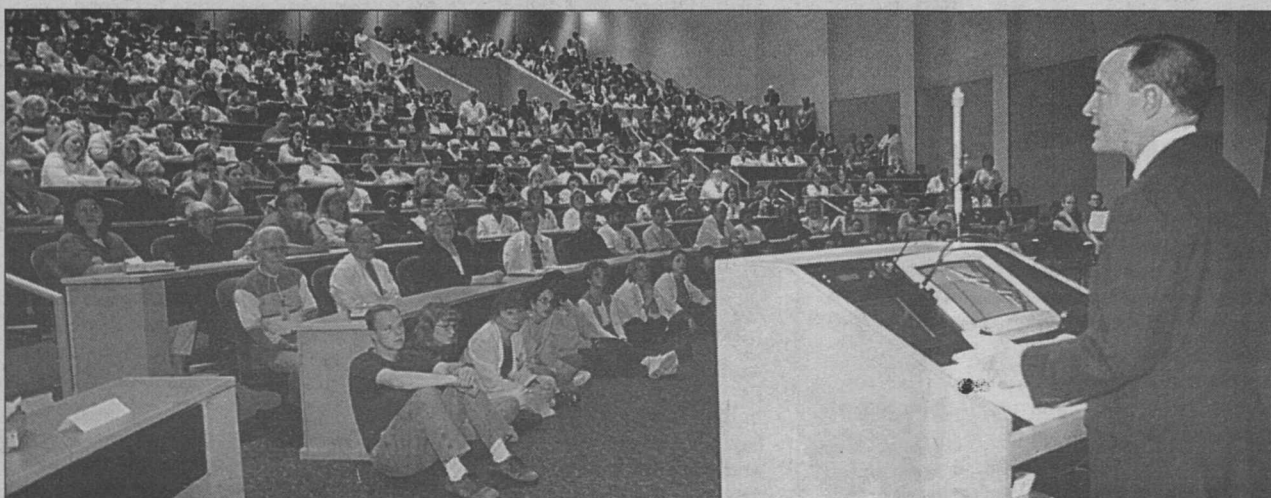
JILL CARNAGHI

At far left, second-year medical students Walter Chan (left) and Mark Diamond join first-year medical student Karen Austin (above) at a candlelight vigil at Forest Park Sept. 14. At left, the U.S. flag on Brookings Hall flies at half-staff Sept. 11, the day of the terrorist attacks.



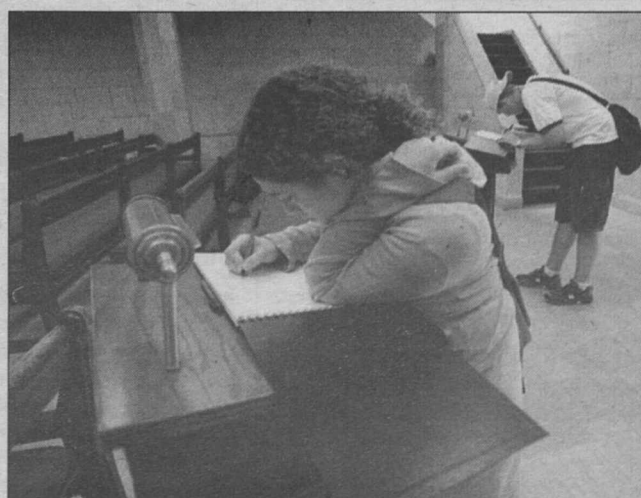
DAVID KUPFER

Student Max Holtz talks with volunteer Amanda Schonhof as he donates blood Sept. 12 in Mallinckrodt Student Center. Behind them, a throng of students, faculty and staff waits in line to give blood.



BOB BOSTON

Chancellor Mark S. Wrighton addresses faculty, staff and students at a memorial service for the University community Sept. 14 at the Eric P. Newman Education Center.



JOE ANGELIS

Student Lara Marks signs a book of remembrance Sept. 14 in Graham Chapel.

Notables

Introducing new faculty members

The following are among the new faculty members on the Hilltop Campus. Others will be introduced periodically in this space.

Ike Mathur, Ph.D., visiting professor of finance in the Olin School of Business, comes from the College of Business and Administration at Southern Illinois University at Carbondale, where he has served as professor of finance since 1981, chairperson from 1979-92 and 1994-95 and interim dean from 1992-94. He has published numerous papers in peer-reviewed journals, is the author of 14 books, and is internationally recognized for his research in the areas of corporate finance, risk and return, international banking and international financial markets. Mathur is the editor of the Journal of Multinational Financial Management and the co-editor of the Journal of International Financial Markets, Institutions & Money. He is the recipient of numerous teaching and research awards. Mathur earned a bachelor of science degree in 1965 and a master of business administration in 1968, both from Eastern Michigan University, and a doctorate in finance and marketing in 1974 from the University of Cincinnati.

Elizabeth C. Junqueira, assistant professor of operations and manufacturing management in the Olin School of Business, comes from the University of California, Berkeley, where she taught engineering economics and operations management. Among her research interests are the modeling of capacity allocation decisions and strategies and the study of supply contracts in capacity-constrained oligopolies. Junqueira earned a bachelor of science degree in applied mathematics with distinction in 1994 from Sonoma State University, a master of science degree in industrial engineering and operations research in 1995, a certificate in management of technology in 1996 and is a doctoral candidate in industrial engineering and operations research at the University of California, Berkeley.

John David Branch, senior lecturer in international business in the Olin School of Business, comes from the University of Cambridge in England. His research interests include international marketing, consumer behavior, marketing research, services marketing, interpretative research methods and international education. Branch earned a bachelor's degree in engineering science in 1990 from the University of Western Ontario in Canada; a master of business administration degree in 1993 from the University of New Brunswick in Canada; and is a doctoral candidate at the University of Cambridge.

Of note

Jeffrey D. Milbrandt, M.D., Ph.D., professor of pathology and immunology in the School of Medicine, has received a five-year, \$2,087,152 grant from the National Institute on Aging for research titled "Physiology and Genetics of GDNF Family of Ligands (GFLS)." ...

David Peters, Ph.D., the McDonnell-Douglas Professor of Engineering and chair of mechanical engineering, has received a three-year, \$194,065 grant from the U.S. Army Research Office for his study, "A Complete Rotor Wake Model in State Space." ...

John Lockwood, Ph.D., assistant professor of computer science, has received a \$30,000 grant from Nortel for his study, "Prototype of MPFQ Scheduler for End-to-end Quality of Service Over Wired and Wireless Networks." According to Lockwood, "Through this project, we are

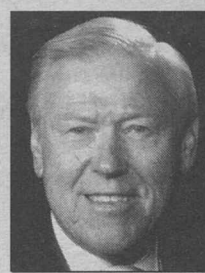
developing scheduling software for wireless base stations that allows wireless local area networks to transmit real-time traffic for voice and video." ...

Patrick J. Lustman, Ph.D., professor of medical psychology in psychiatry in the School of Medicine, has received a five-year, \$582,926 grant from the National Institute of Diabetes and Digestive and Kidney Diseases for research titled "Clinical Research in Comorbid Diabetes and Depression." ...

Christopher Gill, Ph.D., assistant professor of computer science, recently finished work on "Adaptive Software Technology Demonstration: Phase 2," awarded as a \$42,000 grant from Boeing, a subcontractor in an Air Force Research Labs/Wright-Patterson study. Gill explained that his part of the project was "to study scheduling and dispatching techniques to integrate real-time tasks having strict execution limits with those having only statistical execution limits."

Keso receives dental alumnus award

Larson R. Keso, D.D.S., has received the 2001 Washington University School of Dental Medicine Distinguished Alumnus



Keso: Honored dental alumnus

Award for his outstanding contributions to dentistry and orthodontics. Keso, a 1955 graduate of the former School of Dental Medicine, earned a bachelor's degree in zoology from Oklahoma State University in 1953. Following graduation from dental school, he served three years in the U.S. Air Force. He returned to the University, where he earned a master's degree in orthodontics in 1960.

He returned to Oklahoma, where he has been in the private

practice of orthodontics in Oklahoma City and Edmond. He was a founding member of the cleft palate team at the University of Oklahoma Children's Memorial Hospital and served on the volunteer faculty of Oklahoma's School of Medicine.

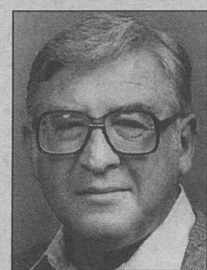
Over the past three decades, Keso has held leadership positions in regional, national and international orthodontic organizations. He is a past president of the American Association of Orthodontists. He now serves as president of the American Association of Orthodontists Insurance Company and as a member of the World Federation of Orthodontists' executive committee.

Keso was named Dentist of the Year in 1997 by the Oklahoma Dental Association and received the Martin Dewey Memorial Award in 1999 from the Southwestern Society of Orthodontists.

News Analysis

News Analysis contains excerpts from the For Expert Comment service. The service, which provides timely faculty comments to media across the country, is distributed by the Office of University Communications.

Culture of overkill will persist in attack aftermath



Victor T. Le Vine, Ph.D., professor of political science in Arts & Sciences, has written, researched

and taught on the subject of terrorism for the past 25 years. Here he makes his reflections on the Sept. 11 terrorist attacks. Reprinted from the *St. Louis Post-Dispatch*.

Overkill. As the smoke lifts from last Tuesday's horrors, both the outlines of an address of its perpetrators and of their motives has begun to emerge. What is now increasingly clear is that that horror has a Middle Eastern

address and that many Palestinians — at least those who jubilated in the streets — are convinced that what was done was done on their behalf, and that America was justifiably punished for its support of Israel.

What is not so clear, though also visible, is the connection with a Middle Eastern subculture of excess, exaggeration and overkill and its associated delusions. This is the world of the terrorist suicide bomber, of those who are convinced that their own self-immolation — called "martyrdom" in the region — not only has divine sanction, but also will change the course of history. It sees the simultaneous mass slaughter of "the enemy" as fit punishment for his alleged crimes.

In the minds of many in the Middle East, America, not

Israel, is the "Great Satan." They believe Israel could not have survived without our support, nor could it have committed its "crimes" (the hyperbolic terms are now commonplace: "genocide," "ethnic cleansing," "racism," "mass murder," etc.) without our blessing.

The delusion has been repeatedly articulated on camera and in the print media. In summary, it says, "Good for you, we are pleased with your punishment! Now you know how we feel, and you will have learned not to support Israel and to change your policies to support us." Overkill, then, is both salutary and justified.

To us, this logic is bizarre, even unbelievable: We know that those images of Palestinians (not to speak of Iraqis and others in the region) dancing in the street and gloating over last Tuesday's

carnage, plus the comments of those who now bid us, after everything that has happened, to ditch the Israelis and embrace the Palestinian cause, are likely to have exactly the reverse effect. No wonder Yasser Arafat was horrified: He had good reason. He knew that the reservoir of good will he had built up as a result of Israeli Prime Minister Ariel Sharon's retaliatory tactics to the new Intifada had collapsed with the towers of the World Trade Center.

It may still turn out that the address of the terrorist combine we seek is not Palestinian. No matter. The culture of overkill will persist, and with it, the delusion that overkill will change the world to suit the overkillers.

Disasters' psychiatric effects potentially widespread



Carol S. North, M.D., professor of psychiatry at the School of Medicine, is an expert on the psychiatric

effects of disasters. Here she comments on psychiatric effects of disasters such as those that occurred Sept. 11. Reprinted from the *St. Louis Post-Dispatch*.

As workers pick through the debris at the World Trade Center and Pentagon, and the rest of us watch in horror as casualty numbers mount, we must remember that the public health impact of this attack will not end when the bodies are buried and the survivors go home. The psychiatric effects of disasters can last much longer.

For several years, my colleagues and I have studied the survivors of disasters. We've worked with victims of floods, tornadoes, mass shootings, plane crashes, earthquakes and

the bombings in Oklahoma City and at the U.S. Embassies in East Africa.

We've learned many things. For one, people with a history of psychiatric illness are the most vulnerable to psychiatric problems following a disaster. In addition, the most common psychiatric disorder is posttraumatic stress disorder (PTSD). And, most importantly, PTSD is very treatable, but only if we are vigilant about getting help for those with symptoms.

Those who are closer to a disaster are more likely to be affected by it. In 1993, Missourians who lost their homes in the Great Flood were at higher risk than those who lived away from the flood plain. We would assume that in New York, those who were in the World Trade Center would be at greater risk than those uptown in Harlem or those of us whose only experience of the disaster was on TV.

But just as a pebble tossed into water continues to make concentric waves until the impact reaches the shore, it's

not uncommon after a disaster for people with no immediate connection to feel strong emotions — sadness, anger or upset.

Whether we were running for our lives in New York's financial district or just watching the events unfold on TV, most were deeply affected by this disaster, but it's important to know that having symptoms such as intrusive images of the disaster in our minds or sleep problems is not the same thing as developing a psychiatric illness. To be diagnosed with PTSD, symptoms must persist for at least a month.

We've learned from past studies — particularly from survivors of the direct bomb blast in Oklahoma City — that most people need some time to process grief and anger before moving on. But some, particularly those who develop a class of symptoms known as avoidance and numbing symptoms, are at high risk for developing PTSD. Avoidance and numbing symptoms include not wanting to think about the disaster, feeling distant or feeling isolated from others, and avoiding reminders of the event. People

with prominent avoidance and numbing symptoms are those whom health professionals need to watch most closely because in Oklahoma City, individuals with at least three avoidance and numbing symptoms went on to develop PTSD 94 percent of the time.

While television may give adults a surreal sense of distance during a disaster like this, the events can be more immediate for kids. As adults process this disaster, they need to be mindful that kids may be watching. Children are carefully attuned to their adult caregivers, so if you're upset, they may be, too. Remember, when you explain your feelings to children, do it in a manner that's consistent with their level of development. It does no good to talk about the intricacies of terrorism with a very young child. "Some people died, and I'm sad," would probably be a better approach. Younger children especially need information to reassure them that they are safe.

Washington People

"My life is like The Beatles' song — I did it all with a little help from my friends," said Robert D. Schreiber, Ph.D., the Alumni Professor of Pathology and Immunology, professor of molecular microbiology and director of the immunology graduate program at the School of Medicine. "I'm not saying I've had nothing to do with my success, but it's certainly been a team effort."

Both in his professional and personal life, it is easy to see the fingerprints of influential mentors, guiding him toward his current success. Like a bowling ball nudged down the lane by air-filled bumpers with a resulting triumphant strike, Schreiber zigzagged across the country as his academic interests continuously progressed forward. Egged on by mentors, he landed in



Robert D. Schreiber, Ph.D. (left), the Alumni Professor of Pathology and Immunology, professor of molecular microbiology and director of the immunology graduate program at the School of Medicine, and Medical Scientist Training Program student Gavin Dunn use an inverted microscope to look at human cells growing in tissue-culture flasks.

Finding the perfect fit

Robert D. Schreiber, Ph.D., guided to his own niche, now mentors others

By GILA Z. RECKESS

St. Louis, having created his own niche as an internationally respected scientist.

The road worth traveling

The son of a chemist in Rochester, N.Y., Schreiber planned to study chemistry at the State University of New York (SUNY) at Buffalo in preparation for a medical degree. But after spending one summer doing biochemical research, Schreiber changed his course.

"I realized that what I loved the most was research, with a viewpoint of applying it to human situations," Schreiber said.

Captivated by this research and inspired by his first mentor, James Watson, M.D., Schreiber decided to stay in Watson's lab for graduate work.

But fate had other plans. Just before Schreiber began his doctorate degree, Watson was killed in a car accident. Watson's good friend and colleague, an immunologist at SUNY Buffalo named Morris Reichlin, M.D., took Schreiber under his wing and convinced the young scientist to study how the body defends against disease.

Having never been offered immunology classes as an undergraduate, Schreiber accepted the proposal with open-minded uncertainty. It was a fortuitous change borne of unfortunate circumstance.

"I became an immunologist as a result of this horrible tragedy," Schreiber said. "But because it was more directly related to human

disease, it turned out to be a much better fit than my previous biochemistry focus."

After completing his doctorate, Schreiber and his childhood sweetheart and wife, Dale, packed their Old English sheepdog into their small car and moved 3,000 miles from home, heeding advice from his esteemed mentor Reichlin. In La Jolla, Calif., Schreiber joined the Research Institute of Scripps Clinic, working alongside Hans Müller-Eberhard, M.D., first as a postdoctoral fellow and then as a faculty member.

After six years at this intended three-year stint, Schreiber again found himself embarking on a large career adventure at the advice of an influential mentor. Müller-Eberhard encouraged him to identify his own specialty. So Schreiber and his wife again packed up — this time trading the sheepdog and small car for two children and a station wagon — and drove back across the country to Boston to spend a year with Emil R. Unanue, M.D., then at Harvard University and now the Edward Mallinckrodt Professor and head of the Department of Pathology and Immunology at Washington University.

As a visiting associate professor at Harvard, Schreiber began to form the roots of his current research interests. Unanue was studying macrophages, immune cells that kill dangerous cells. Schreiber chose a related topic, but one on the periphery of Unanue's research so that he could continue the pursuit upon his return to Scripps. Under Unanue's mentorship, Schreiber developed a technique to study a protein known as macrophage activating factor (MAF) that regulates the capacity of macrophages to kill microorganisms and tumor cells.

Returning to California with an invigorated sense of purpose, Schreiber set up his own lab and used this new method to study this poorly understood activity. He discovered that MAF was actually a known molecule called interferon-gamma (IFN γ) whose role in helping the body protect itself was unclear.

By fortunate coincidence, Genentech Inc. in San Francisco had just cloned IFN γ . Through a

close collaboration, Schreiber gained early access to the cloned protein and became the first to discover how it works.

His success was quickly recognized by Unanue who, in the midst of becoming head of pathology at Washington University in 1984, recruited Schreiber to the department.

In 1985, the Schreibers — now with three children, Michael, Andrew and Elisa — once again packed their belongings. But this time the move was permanent.

"Part of the joy of my career has been that my family has been so supportive," Schreiber said.

His wife, Dale, who gave up a career in audiology to accompany Schreiber to St. Louis, has been extremely active in the Jewish community and now is training to become a rabbi. Having recently taken their youngest child, Elisa, to college, the couple is hoping to do more traveling together.

"I love seeing the diversity in the world and walking through history," Schreiber said. "And Dale is such a good people person — she can make people laugh who don't even speak the same language."

Bull's-eye

With their geographic oscillations across the United States, it's a good thing the Schreibers enjoy traveling. But after years of exploring different cities and various aspects of medical research, Schreiber has landed on what he describes as a perfect fit. For someone who values community and teamwork, St. Louis' small-town camaraderie and the University's unique environment are life's equivalent of the 10-pin strike.

"When I first came to Washington University, someone told me anything is possible here," Schreiber said. "I now know that they were right. The support and openness here are unique and have had a tremendous influence on my success, and hopefully I've influenced others similarly."

He also appears to have honed in on his academic niche. Most recently, in what Schreiber feels is the culmination of his work to date, his team found that the body's natural defense system also is involved in preventing the formation of tumors. The project was inspired by Schreiber's latest mentor, Lloyd J. Old, M.D., director and chief executive officer of the Ludwig Institute for Cancer Research at Memorial

Sloan-Kettering Cancer Center in New York, who convinced Schreiber's team to help investigate tumor formation.

"Our interests always have been in immunology, but never were directed toward a specific disease," Schreiber said.

Cancer in particular was far from Schreiber's mind. Until recently, scientists had largely discounted the possibility that the immune system helps prevent the formation of tumors. But as a result of the collaboration between Schreiber and Old, there now is conclusive evidence that IFN γ and the cells that produce it play a key role in destroying newly developed tumor cells.

Paying it forward

When Schreiber talks about his work, he uses words like "we" and "our," another testament to his appreciation of the contributions by others, both colleagues and students. Modeling after his own mentor experiences, Schreiber provides his students with a combination of independence and collaboration to foster their scientific minds.

"What I appreciate most," he said, "has been the opportunity to work with many incredibly talented and dedicated individuals. When you get such a group together, there develops a significant intellectual synergy that rapidly translates into effective experiments. In my opinion, that's the way to do science."

His most recent project relied on the dedicated involvement of many students in the Medical Scientist Training Program (MSTP) at the School of Medicine.

"Bob's unflagging enthusiasm for science made his lab a fantastic place to train," said Anand Dighe, M.D., Ph.D., one of Schreiber's MSTP students and now in the Division of Laboratory Medicine at Massachusetts General Hospital. "He was willing to spend hours helping his students and always left me excited about my experiments."

In addition to his research accomplishments, Schreiber also is involved in many aspects of the University community.

"Bob is very accessible and spends much time advising and interacting with faculty," Unanue said. "Thus he is one of the very distinguished immunologists in the community and is a highly active participant in many of the teaching, academic and scientific aspects of our program."

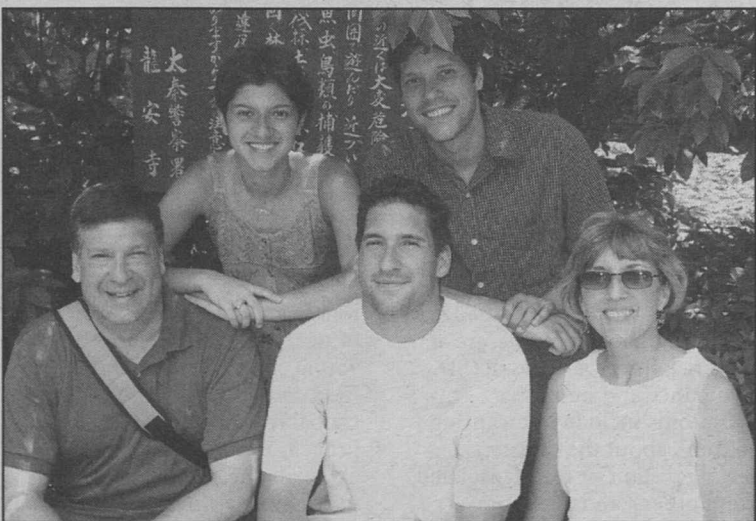
Robert D. Schreiber, Ph.D.

Born and raised: Rochester, N.Y.

University position: Alumni Professor of Pathology and Immunology, professor of molecular microbiology, director of the immunology graduate program and leader of the tumor immunology program at the Siteman Cancer Center

Family: Wife, Dale; sons, Michael (25) and Andrew (21); daughter, Elisa (18)

Hobbies: Camping, the outdoors, traveling, photography



The Schreiber family: (back row, left to right) Elisa and Michael; (front row, left to right) Robert, Andrew and Dale.