Early research

Washington University Prefreshman Program participants Autumn Rabe of Upland, Calif., and Richard Souvenir of Skokie, Ill., work together to determine the concentration of bacteria in a culture sample during an orientation laboratory in Room 125 Rebbstock Hall. The annual summer program offers select students with interests in the life sciences an early opportunity to work and study at Washington University before beginning their freshman year in the fall. This year, 18 participants were selected from 275 applicants to work with University mentors in a variety of research situations from mid-June through early August. Funded by a grant from the Howard Hughes Medical Institute, the four-year-old program is directed by Elaine Alexander, assistant outreach coordinator in the Department of Biology in Arts and Sciences.

Congress mulls education provisions in tax bill

As Congress races to finalize the Revenue Reconciliation Act of 1997 (H.R. 2014), the proposed tax bill includes many provisions of interest to the higher education community.

This year's $135 billion tax-cut package working its way through Congress has both positive and negative provisions regarding higher education.

Higher education leaders across the country are supporting a tax package that includes proposed tax credits and deductions as well as savings incentives for higher education.

One provision in the House-version of the bill (Section 117(d)) would tax tuition and fees paid by college students at public and private universities. Students and University leaders have expressed opposition to this section of the bill, which they say could have a significant effect on higher education institutions.

But among the existing exchange programs recognized by the School of Business are agreements with Koblenz School of Commerce and Industry, a leading French business school, in Paris, will attend the Paris school for one year for the first two years of college, graduate level, and graduate education, which would ensure that working adults can participate in higher education without adverse tax consequences; reinstatement of the student loan interest deduction to help student borrowers repay loans after graduation, and higher.

Continued on page 4

International study sites added to Olin program

Business schools in Paris and Hong Kong have just been added to the growing list of international destinations for Washington University's John M. Olin School of Business, thanks to two undergraduate exchange program agreements.

This fall semester, five undergraduate students from Olin will attend the Chinese University of Hong Kong for the first time, and about five will attend the Paris School of Business next spring.

These opportunities add to existing ones for business undergraduates; already there is an exchange agreement between Olin and Hong Kong University of Science and Technology, as well as academic and internship programs in London and Stuttgart, Germany.

Among the existing exchange programs for business graduate students are agreements with Koblenz School of Corporate Management, Kohlen, Germany; Manchester Business School, Manchester, England; and University of Paris-Dauphine. Because students are eager to experience other cultures, diverse education settings and international business climates, they are eager to experience other cultures, diverse education settings and international business climates, they are eager to experience other cultures, diverse education settings and international business climates.

Traveling is serious business for undergraduate

For Brent Sobol, studying and seeing the world go hand-in-hand. The business administration junior's latest stop is London, where he's taking "International Economics and Finance" and "International Business: A European Perspective" through the John M. Olin School of Business. He's one of 20 Olin students (10 undergraduate and 20 graduate) enrolled in the summer session of the school's London program. During August, the month off, he plans to travel to the northern part of the United Kingdom, Northern Ireland, the Republic of Ireland, Amsterdam and Sweden — all before returning to London for a 15-week internship with

Continued on page 5

Academic challenge draws young students to summer program

So much for summer days lounging around the pool. Brandon Lee chose to spend his summer in school.

Lee, 17, took three college-level courses at Washington University in June and July. He is one of 58 high school seniors-to-be participating in the University's summer Scholars Program. The annual program is part of University College in Arts and Sciences.

"I wanted to (go to) school to try to get ahead on some courses," said Lee, a first-time visitor to St. Louis from Houston. "I like new experiences and meeting new people. With this program, I could do that as well as get my studies done.

The five-week session offers high school students an introduction to college life and to the unique qualities of Washington University. Students have access to the facilities, live in the residence halls, and take summer classes alongside college students. Once a week, they meet with faculty and other campus community leaders to discuss research, teaching and college life.

In addition to the academic challenge, the students take two to three field trips a week to area attractions, including the St. Louis Science Center and Forest Park. They also visited in a St. Louis Cardinals baseball game and canoe down a local river.

Students in the program are at least 16 years old and have completed their junior year of high school. They have an academic average of B+ or better and combined SAT scores of 1100 or higher.

This year, 28 students participated in the first session (June 9- July 11) and 30 are enrolled in the second session (July 14-Aug. 15). They come from different states, as well as Puerto Rico, Taiwan, Malaysia and Botswana.

Each student takes two to three courses and earns up to seven college hours. There are 70 different courses to choose from, with at least 30 different departmental options. An "option school"就行了 in Business, Accounting and Economics teaches higher education study and survival skills.

"The goal of the High School Summer Scholars Program is to provide high school students with an opportunity to experience college life early on, to promote their academic and personal growth, and to prepare them for the transition to college," said Mark Rollins, Ph.D., director of summer sessions and associate professor of psychology in Arts and Sciences. "They learn to cope with problems all college students face: managing time, meeting new people. With this program, I could do that as well as get my studies done."

In this issue

Drinking's damage

The complications of fetal alcohol syndrome have been traced to a crucial developmental gene

Rules and regs

Administrative law is an appealing prospect for School of Law professor Ronald M. Levin, J.D.

Hit the road

A theoretical journey down Main Street could let architecture students put their talents to good use.
Kelly will direct new cardiovascular research center

Daniel P. Kelly, M.D., associate professor of medicine and of molecular biology and pharmacology, has been named director of the Cardiovascular Division's new Center for Cardiovascular Research (CCR). This appointment was announced by Michael E. Cain, M.D., the Lewis Professor and chair of the Department of Medicine.

The CCR will provide a unique, horizontally straddled research environment for scientists with diverse backgrounds but a shared interest in the biology and pathobiology of the heart and vasculature. A major objective of the CCR is to establish novel interfaces between diverse scientific disciplines. The center is structured to facilitate interactions with several research groups at the School of Medicine, including those involved in cardiac biophysics and bioengineering, basic science departments, the pediatric molecular biology program, and other cardiovascular research groups.

Additional objectives are to provide an exciting and scientifically rigorous training environment for graduate students, postdoctoral fellows and research fellows and to facilitate sharing of core resources, equipment and research spaces. Kelly joined the Washington University faculty in 1990 as an assistant professor of medicine. He became an associate professor of medicine and of molecular biology and pharmacology in 1995. Kelly has developed an internationally recognized effort in cardiovascular molecular biology. His work has focused on inherited defects and molecular regulation of mitochondrial protein essential for energy generation in the heart.

Kelly's early work characterized the molecular basis of an inherited defect, chain acyl-CoA dehydrogenase (MCAD) deficiency. Inherited MCAD deficiency is the most common inheritable error of fatty acid oxidation and a major cause of sudden cardiac death and heart failure in patients with familial cardiomyopathy. His work was published in the Journal of Clinical Investigation and screening assay for the diagnosis of MCAD deficiency.

Recently, Kelly's group has focused on the molecular pathogenesis of cardiac hypertrophy and heart failure. Using transgenic mouse technology, Kelly's laboratory has identified a novel transcriptional regulatory pathway that is re-induced with fatty acid oxidation. This development led to a comprehensive study of the fetal program in the hypertrophied heart involving the transcriptional regulatory pathway and the development of novel treatments for heart failure.

Alcohol-impaired gene linked to fetal alcohol syndrome

A few nights of binge drinking during the first trimester of pregnancy can leave babies with malformed faces, weak hearts, short limbs and impaired brains — defects that last a lifetime. The devastating collection of ailments, known as fetal alcohol syndrome, affects about 12,000 babies in the United States each year.

Researchers have long wondered how alcohol inflicts such widespread damage on developing embryos. Many studies have produced many theories, but most experts agreed that alcohol must stage a complex, multifaceted attack against several different parts of the body.

The real answer may be much more simple. Using pregnant mice as models, School of Medicine researchers have traced the complications of fetal alcohol syndrome to a single alcohol-impaired developmental gene. The study was described in the July 8 issue of the Proceedings of the National Academy of Sciences.

Leonard Rifas, M.S.; Dwight Towner, M.D., Ph.D.; and Louis Avioli, M.D., all members of the Division of Bone and Mineral Diseases, discovered that alcohol destroyed the msx2 gene in embryos, suggesting that alcohol-impaired developmental genes are pivotal for producing fetal alcohol syndrome. The researchers also determined that alcohol destroyed the msx2 gene in human embryos in the 11th day. If the embryos had been allowed to develop, the babies would have developed the hallmarks of fetal alcohol syndrome, including weak hearts and impaired brains. The embryos exposed to alcohol already were 50 percent smaller than other embryos and showed no sign of msx2.

Researchers gave pregnant mice strong doses of alcohol on the eighth day of pregnancy and removed the embryos on the 11th day. If the embryos had been allowed to develop, the babies would have developed the hallmarks of fetal alcohol syndrome, including weak hearts and impaired brains. The embryos exposed to alcohol already were 50 percent smaller than other embryos and showed no sign of msx2. In normal embryos, the gene was abundant in every part of the body that can be affected by fetal alcohol syndrome.

The researchers also determined that alcohol destroyed the msx2 gene in bone cells growing in a test tube. “This confirmed our findings in the mice that alcohol in large doses compromises skeletal development by blocking this gene,” Avioli said.

Rifas notes that the dramatic results in mice can’t automatically be applied to humans. “Nobody knows how alcohol affects msx2 in humans,” he said.

Many other questions remain. In humans and in mice, msx2 is part of a complex network of genes that controls development. Researchers aren’t sure if alcohol blocks msx2 directly or if it blocks other genes that control msx2.

They hope future experiments will explain how alcohol interacts with developmental genes.

“Once we understand the entire mechanism of fetal alcohol syndrome, maybe we could begin to think about reversing the devastating effects,” Rifas said.

Of course, the woman would have to get treatment quickly after drinking. The better option is for pregnant women to avoid huge amounts of alcohol in the first place.

Alcohol-impaired gene linked to fetal alcohol syndrome

Alcohol-impaired gene linked to fetal alcohol syndrome

Wearing prism goggles, 10-year-old Anne Sauer, left, tries to touch the index finger of Claire Kerckhoff, who also is 10. On July 17 at the Kirkwood Public Library, the girls learned how prisms distort the perception of where their fingers are in space through an activity conducted by the Hands-on Neuroscience Program. This School of Medicine program, made up of graduate students, postdoctoral fellows and faculty, introduces elementary and junior high school students to the principles of neuroscience.

Medical Update

Alcohol-impaired gene linked to fetal alcohol syndrome

Alcohol-impaired gene linked to fetal alcohol syndrome

Alcohol-impaired gene linked to fetal alcohol syndrome

Volunteers needed for birth-control study

Women who would like to test an alternative to daily birth-control pills may be eligible for a study of monthly hormone injections.

Diane F. Merritt, M.D., associate professor of obstetrics and gynecology, is participating in a national study to test monthly injections of Cyclo-Provera, a combination of estrogen and progestrone.

Monthly injections are widely used in Europe, where they are as effective as correctly used pills or tubal ligation,” Merritt said. “Women who want effective birth control but have trouble remembering to take a daily pill may select this option.”

The St. Louis site will enroll 30 sexually active women between ages 18 and 49. Volunteers should be fertile but not want to become pregnant for at least 60 weeks.

For information, call (314) 454-8988.
Administrative law is Levin’s ‘scope’

E
eh year, dozens of federal agencies collect thousands of regulations and decisions that can either gratify or frustrate private citizens. For School of Law professor Ronald M. Levin, J.D., the legal checks used to regulate the regulators form an intellectual and stimulating area of law, appealing to his interests in both politics and procedure.

"I try to raise questions for students about what the rules of the game should be," Levin said. "I try to give students a sense of how rules are created to deal with current crises or to redress serious social problems." He also stresses that ethics rules should reflect the rules of the game. Levin and his co-author, Ernest Gellhorn, LL.B., noted in the introduction to their book, "Administrative Law and Process in a Nutshell." Specializing in anything from national security to taxation, environmental protection, social services or immigration, these agencies often draw up, administer and enforce their own regulations.

"But such broad-ranging authority may simply be a mask for unchecked power," the authors observed. "The fundamental policy problem ... is how to design a system of checks, which will minimize the risks of bureaucratic arbitrariness and overreaching, while preserving for the agencies the flexibility they need to act effectively."

Levin's research into this "administrative policy problem" has led him to explore a wide variety of scholarly issues, ranging from the subtle dynamics of court-agency relationships to the politically hot topic of congressional ethics.

"Soon to be released in its fourth edition, Gellhorn and Levin's Administrative Law book is highly regarded in the field and has been translated into both Japanese and Chinese. Gellhorn, a professor of law at George Mason University in Arlington, Va., said Levin's legal scholarship is exemplary.

"Ron has an imaginative and lively mind and is an especially talented researcher," Gellhorn said. "He has an ability to identify extraordinarily deep material that relates to an issue. Most of us can identify one or two cases, but he never stops there. He has a "whole-world" view of administrative law and an ability to bring that perception to his writing in a way that is clear to the student or layperson."

"Scope of review"

Levin is currently engaging his talent for identifying, analyzing and synthesizing cases in administrative law in his latest project, the revision of an administrative law casebook. Co-authored with law professors Michael Asimow, LL.B., of the University of California-Los Angeles, and David B. Boren, J.D., LL.M., of the University of Iowa, the second edition of "State and Federal Administrative Law" is due out in 1998 and will be used by law students across the nation.

Levin's main research specialty is the administrative law topic of "scope of review" — the principles that courts use in evaluating the merits of agency actions. His latest contribution to this field will be published this fall in the Chicago-Kent Law Review. In his article, Levin analyzes the meaning of the standards announced in a well-known U.S. Supreme Court case involving custom enforcement of U.S.S.A. Inc.'s challenge to an Environmental Protection Agency regulation. He proposes a reinterpretation of the Chevron case that would simplify its standards without fundamentally changing their reach.

"The article is one of a series of studies of judicial review that Levin has written throughout his academic career. One of his most significant contributions was a "Restatement of Scope of Review Doctrine," which Levin published in 1986 under the auspices of the American Bar Association's Section of Administrative Law. It was a comprehensive analysis of federal case law on judicial review of administrative action. Levin obtained the restatement from practicing agency officials and fellow academics and synthesized them into a framework endorsed by the ABA section.

In the classroom, Levin is popular among students, who cite his ability to take the somewhat dry but intellectually stimulating field of administrative law and legislation civil procedure and create lively discussion.

"All the courses I teach are on procedure," Levin said. "It's all fascinating questions for students about what the rules of the game should be, regardless of how they feel about the merits of a specific dispute at hand."

Second-year law student Bill Keogh said he admires Levin's ability to "bring that perception to his writing in a way that is clear to the student or lay person." Levin's administrative law book is "a superb teacher, an influential and insightful scholar and an outstanding citizen of both the School of Law and the University," Ellis said. "He has achieved national recognition as an authority on administrative law and is highly regarded by both his students and his faculty colleagues. His work with the ABA Administrative Law Section has contributed significantly to the improvement of the administrative process and a more realistic understanding of congressional ethics."

Levin traces his ties to the University back to his parents, Marvin and Lois Levin, who were both alumni, and to his great-uncle, Samuel Rosenkranz, Ph.D., who was an adjunct professor at the School of Art and Sciences. Levin's wife, Anne C. Goldberg, M.D., is an associate professor of medicine at the School of Medicine. Additionally, Levin has fond memories of attending the American Free Summer Student Program, a high school student program that takes place across the country.

Levin's family connections to the University will take on a new dimension this fall when his younger brother, Larry, a professional magician and clown, performs during the weekend of the university's bicentennial. Levin also sees a tie between his brother's profession and his own push for expanded congressional ethics rules.

"Even magicians have their own code of ethics. As well they should," Levin quipped. "Do you realize how much deception goes on in that profession?"

Law professor Ronald M. Levin, J.D., discusses administrative law issues with second-year law student Justin Sage in the Janette Lee Reading Room in Anheuser-Busch Hall.

I try to raise questions for students about what the rules of the game should be.
Tuesday, Aug. 26
8 p.m. Gateway Chamber Music Concert. Cost: $5; $3 for children and senior citizens. Chapel. 569-0371.
Registration open for the following Office of Continuing Medical Education seminars: "Current Topics in Cardiovascular Anesthesia; Perioperative Management" (Sept. 4-6); "Contemporary Cardiothoracic Surgery" (Sept. 18-20); and "New Techniques in Urinary Incontinence and Female Urology" (Oct. 18). Eric P. Newman Education Center. Call 362-6891 for times, costs and to register.

Calendar guidelines
Events sponsored by the University — its departments, schools, centers, organizations and recognized student organizations — are published in the Calendar. All events open to the public unless otherwise noted.
Calendar submissions should state time, date, place, sponsor(s), title of event, summary of speaker(s) and affiliation(s), and admission cost. Quality promotional photographs with descriptions are welcome. Send items to Judy Ruhland at Campus Box 1070 or via fax to (314) 935-4926. Submission forms are available by calling (314) 935-4926.
The deadline for all entries is noon Tuesday one week prior to publication. Late entries will not be considered. The Record is printed every Thursday during the school year, except holidays, and more than two weeks before the summer. If you are uncertain about a deadline or have questions, feel free to contact: Judy Ruhland at Campus Box 1070 or via fax to (314) 935-4926.

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\text{Visit Washington University's on-line calendar at http://cal.wustl.edu/calendar/events/v1.1}
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\text{July 24-Aug. 23}
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I. Introduction

The president’s National Drug Control Strategy, issued in September 1989, proposed that Congress pass legislation to require schools, colleges, and universities to implement and enforce drug prevention programs and policies as a condition of eligibility to receive federal financial assistance, including student financial aid. On December 12, 1989, the president signed the Drug-Free Schools and Communities Act Amendments of 1989, Public Law 101-226. That law also requires institutions receiving federal financial assistance to prevent the illegal use of alcohol by students and employees.

The law requires that, as a condition of receiving federal funds, Washington University must certify that it has adopted and implemented a program to prohibit the unlawful possession, use or distribution of illicit drugs and alcohol on Washington University property or as part of any of its activities. Accordingly, Washington University has instituted this policy, which became effective on and after October 1, 1990.

II. Policy Statement

It is the goal of Washington University to protect the public health and environment of members of the University by promoting a drug-free environment.

In accordance with the mandate of the federal legislation, the manufacture, distribution, possession or use of illicit drugs, and the unlawful possession, use or distribution of alcohol on Washington University property or as part of any of its activities is prohibited.

Violations of the policy will be handled according to existing policies and procedures covering the conduct of administrators, faculty, students, and staff.

A. Standards of Conduct — Illicit Drugs: The unlawful manufacture, possession, distribution or use of illicit drugs on Washington University property or as part of any of its activities by University students, employees or their guests is prohibited.

B. Standards of Conduct — Alcohol: Federal legislation prohibits the unlawful possession, use or distribution of alcohol. Therefore, the possession and use of alcohol by non-intoxicated persons twenty-one (21) years of age or older is, according to Missouri law, lawful. University policies limit the lawful use of alcohol to appropriate occasions. Undergraduate students should contact the Office of Student Affairs for standards governing student parties and student use and possession of alcohol. Graduate students should contact their Dean’s office. Contact the Office of Human Resources on either campus for specific standards governing non-academic employees.

III. Legal Sanctions

A. Drugs: The manufacture, possession, sale, distribution and use of illicit drugs is prohibited by city and county ordinance, state law and federal statute. Punishments range from fines of $50 to life imprisonment. The statutes and ordinances define the drugs deemed “illicit.” Attached, as Appendix A, is a summary of federal sanctions. Chapter 195 of the Revised Statutes of Missouri addresses illicit drugs. Section 195.214 of the Missouri statutes specifically prohibits the distribution of any controlled substance on University property. Persons convicted of this offense can be sentenced to imprisonment for not less than ten (10) years. To review specific provisions of applicable ordinances and statutes, contact the Office of the General Counsel (935-5152).

B. Alcohol: Missouri’s Liquor Control Law makes it illegal for a person under the age of twenty-one years to purchase, attempt to purchase, or possess any intoxicating liquor. Section 311.325 RSMo. Violation of this provision can subject one to a fine between $50 and $1000 and/or imprisonment for a maximum term of one year. County and municipality ordinances contain similar prohibitions and sanctions. To review specific provisions of applicable ordinances and statutes, contact the Office of the General Counsel (935-5152).

IV. Health Risks

A. Drugs: Severe health risks, including death, are associated with the use of illicit drugs. Some are stated in Appendix B. For further information, contact the Center for Chemical Abuse Prevention Education (CAPE) (935-4062) or the University Health Services (Hilltop Campus — 935-6666) (Medical Campus — 362-3523).
B. Alcohol: Abuse of alcohol can produce severe health risks, including death. Alcohol consumption causes a number of marked changes in behavior. Even low doses significantly impair the judgment and coordination required to drive a car safely, increasing the likelihood that the driver will be involved in an accident. Low to moderate doses of alcohol also increase the incidence of a variety of aggressive acts, including spouse and child abuse. Moderate to high doses of alcohol cause marked impairments in higher mental functions, severely altering a person's ability to learn and remember information. Very high doses cause respiratory depression and death. If combined with other depressants of the central nervous system, much lower doses of alcohol will produce the effects just described.

Repeated use of alcohol can lead to dependence. Sudden cessation of alcohol intake is likely to produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life-threatening. Long-term consumption of large quantities of alcohol, particularly when combined with poor nutrition, also can lead to permanent damage to vital organs such as the brain and the liver.

Women who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation. In addition, research indicates that children of alcoholic parents are at greater risk than other youngsters of becoming alcoholics. For further information, contact the Center for Chemical Abuse Prevention Education (CAPE) (935-4062) or the University Health Services (Hilltop Campus — 935-6666) (Medical Campus — 362-3523).

VI. Disciplinary Sanctions

Different disciplinary procedures are applicable to faculty, staff and students. Violations of the standards of conduct will be dealt with on a case by case basis with the imposition of discipline being appropriate to the severity of the violation. For each group comprising the University community, there are certain common sanctions that could be applied in an appropriate case. These common sanctions include letters of reprimand, probation and severance of ties with the University, through expulsion or termination. Normally, opportunity for referral to an appropriate rehabilitation program occurs and is usually associated with a first offense. Referral for prosecution will undoubtedly occur only for the most serious violations.

A. Faculty: Faculty discipline is normally administered, in the informal manner, by the faculty member's department head, dean or by the provost. Faculty members can be terminated for cause only after a hearing conducted before a panel of faculty peers.

B. Staff: The non-academic staff is subject to disciplinary procedures administered by the staff member's department in consultation with the human resources offices on the Hilltop and Medical campuses. The normal range of personnel actions could occur. Staff members are entitled to hearing and redress by a panel of peers.

C. Students: The University Judicial Code governs students' conduct and establishes procedures for adjudicating complaints against students. Expulsion is the most severe sanction possible. In addition, residence halls (including fraternity houses) can impose discipline upon residents. The University may terminate the residence hall contracts of students violating its standards.
<table>
<thead>
<tr>
<th>DRUGS/CSA SCHEDULES</th>
<th>TRADE OR OTHER NAMES</th>
<th>MEDICAL USES</th>
<th>DEPENDENCE</th>
<th>TOLERANCE</th>
<th>DURATION (HOURS)</th>
<th>USUAL METHODS OF ADMINISTRATION</th>
<th>POSSIBLE EFFECTS</th>
<th>EFFECTS OF OVERDOSE</th>
<th>WITHDRAWAL SYNDROMES</th>
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<tr>
<td><strong>NARCOTICS</strong></td>
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<tr>
<td>Opium</td>
<td>II III V</td>
<td>Analgesic, antidiarrheal</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>3-6 Oral, smoked, injected</td>
<td>Euphoria, drowsiness, respiratory depression, constipated pupils, nausea</td>
<td>Slow and shallow breathing, clammy skin, convulsions, coma, possible death</td>
<td>Watery eyes, runny nose, yawning, loss of appetite, irritability, tremors, panic, cramps, nausea, chills and sweating</td>
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<tr>
<td>Morphine</td>
<td>II III</td>
<td>Analgesic, Antitussive</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>3-6 Oral, injected</td>
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<tr>
<td>Codeine</td>
<td>II III V</td>
<td>Analgesic, antitussive</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Yes</td>
<td>3-6 Oral, injected</td>
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<td>Heroin</td>
<td>I</td>
<td>None</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>3-6 Oral, injected</td>
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<tr>
<td>Hydromorphone</td>
<td>II</td>
<td>Analgesic</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>3-6 Oral, injected</td>
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<tr>
<td>Meperidine (Pethidine)</td>
<td>II</td>
<td>Analgesic</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>3-6 Oral, injected</td>
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<tr>
<td>Methadone</td>
<td>II</td>
<td>Analgesic</td>
<td>High-Low</td>
<td>Low</td>
<td>Yes</td>
<td>12-24 Oral, injected</td>
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<td>Other Narcotics</td>
<td>II III IV</td>
<td>Analgesic, antidiarrheal</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Yes</td>
<td>4-8 Oral, injected</td>
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<td><strong>DEPRESSANTS</strong></td>
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<td>Chloral Hydrate</td>
<td>IV</td>
<td>Hypnotic</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Yes</td>
<td>5-8 Oral</td>
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<tr>
<td>Barbiturates</td>
<td>II III IV</td>
<td>Anesthetic</td>
<td>High-Mod.</td>
<td>High-Mod.</td>
<td>Yes</td>
<td>1-16 Oral, injected</td>
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<tr>
<td>Benzodiazepines</td>
<td>IV</td>
<td>Antianxiety, Anticonvulsant, sedative, hypnotic, veterinary euthanasia agent</td>
<td>Low</td>
<td>Low</td>
<td>Yes</td>
<td>4-8 Oral</td>
<td></td>
<td></td>
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<tr>
<td>Methaqualone</td>
<td>I</td>
<td>Sedative, hypnotic</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>4-8 Oral</td>
<td></td>
<td></td>
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<tr>
<td>Glutethimide</td>
<td>II</td>
<td>Sedative, hypnotic</td>
<td>High</td>
<td>High</td>
<td>Yes</td>
<td>4-8 Oral</td>
<td></td>
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<tr>
<td>Other Depressants</td>
<td>III IV</td>
<td>Analgesic, sedative, hypnotic</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Yes</td>
<td>4-8 Oral</td>
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<td><strong>STIMULANTS</strong></td>
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<tr>
<td>Cocaine</td>
<td>IV</td>
<td>Local anesthetic</td>
<td>Possible</td>
<td>High</td>
<td>Yes</td>
<td>1-2 Oral, injected</td>
<td>Increased alertness, excitement, euphoria, increased pulse rate &amp; blood pressure, hallucinations, convulsions, possible death</td>
<td>Agitation, increased in body temperature, tremors, convulsions, possible death</td>
<td>Anxiety, palpitations, delirium, convulsions, possible death</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>II</td>
<td>Attention deficit disorders, narcolepsy, weight control</td>
<td>Possible</td>
<td>High</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenmetrazine</td>
<td>II</td>
<td>Weight control</td>
<td>Possible</td>
<td>High</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylenediphamide</td>
<td>II</td>
<td>Attention deficit disorders, narcolepsy</td>
<td>Possible</td>
<td>Moderate</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Stimulants</td>
<td>III IV</td>
<td>Weight control</td>
<td>Possible</td>
<td>High</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HALLUCINOGENS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD</td>
<td>I</td>
<td>None</td>
<td>None</td>
<td>Unknown</td>
<td>Yes</td>
<td>8-12 Oral, injected</td>
<td>Illusions and hallucinations, poor perception of time and distance</td>
<td>Longer, more intense “trip” episodes, psychosis, possible death</td>
<td>Withdrawal symptoms not reported</td>
</tr>
<tr>
<td>Mescaline and Peyote</td>
<td>I</td>
<td>None</td>
<td>None</td>
<td>Unknown</td>
<td>Yes</td>
<td>8-12 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamine Variants</td>
<td>I</td>
<td>None</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Variable</td>
<td>Smoked, oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phencyclidine</td>
<td>II</td>
<td>Unknown high</td>
<td>Days</td>
<td>Unknown</td>
<td>Yes</td>
<td>Smoked, oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phencyclidine Analogues</td>
<td>I</td>
<td>Unknown high</td>
<td>Days</td>
<td>Unknown</td>
<td>Yes</td>
<td>Smoked, oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Hallucinogens</td>
<td>I</td>
<td>None</td>
<td>Unknown</td>
<td>Possible</td>
<td>Variable</td>
<td>Smoked, oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CANNABIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td>I</td>
<td>None</td>
<td>Unknown</td>
<td>Moderate</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td>Euphoria, relaxed inhibitions, increased appetite, disoriented behavior</td>
<td>Fatigue, paranoia, possible psychosis</td>
<td>Insomnia, hyperactivity, and decreased appetite occasionally reported</td>
</tr>
<tr>
<td>Tetrahydrocannabinol</td>
<td>II</td>
<td>THC, Marinol</td>
<td>Unknown</td>
<td>Moderate</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hashish</td>
<td>I</td>
<td>None</td>
<td>Unknown</td>
<td>Moderate</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hashish Oil</td>
<td>I</td>
<td>None</td>
<td>Unknown</td>
<td>Moderate</td>
<td>Yes</td>
<td>2-4 Oral, injected</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Designated a narcotic under the CSA. *Not designated a narcotic under the CSA.
### Federal Trafficking Penalties

<table>
<thead>
<tr>
<th>CSA</th>
<th>PENALTY</th>
<th>QUANTITY</th>
<th>DRUG</th>
<th>QUANTITY</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2nd Offense</td>
<td>Not less than 10 years, Not more than life.</td>
<td>METHAMPHETAMINE</td>
<td>100 gm or more or 1 kg or more mixture</td>
<td>1st Offense</td>
</tr>
<tr>
<td>I</td>
<td>1st Offense</td>
<td>Not less than 5 years, Not more than 40 years.</td>
<td></td>
<td></td>
<td>2nd Offense</td>
</tr>
<tr>
<td>II</td>
<td>If death or serious injury, not less than life.</td>
<td>HERION</td>
<td>1 kg or more mixture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>All</td>
<td>Fine of not more than $4 million individual, $10 million other than individual.</td>
<td>COCAINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>All</td>
<td>Fine of not more than $250,000 individual, $1 million not individual.</td>
<td>COCAINE BASE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>All</td>
<td>Fine of not more than 3 years.</td>
<td>PCP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Law as originally enacted states 100 gm. Congress requested to make technical correction to 1 kg. Does not include marijuana, hashish, or hash oil. (See separate chart.)*

### Federal Trafficking Penalties — Marijuana

**As of November 18, 1988**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>FIRST OFFENSE</th>
<th>SECOND OFFENSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 kg or more; or 1,000 or more plants</td>
<td>Marijuana</td>
<td>Not less than 10 years, not more than life.</td>
<td>Not less than 20 years, not more than life.</td>
</tr>
<tr>
<td>100 kg to 1,000 kg; or 100-999 plants</td>
<td>Marijuana</td>
<td>Not less than 5 years, not more than 40 years.</td>
<td>Not less than 10 years, not more than life.</td>
</tr>
<tr>
<td>50 to 100 kg</td>
<td>Marijuana</td>
<td>Not more than 20 years.</td>
<td>Not more than 30 years.</td>
</tr>
<tr>
<td>10 to 100 kg</td>
<td>Hashish</td>
<td>Not less than 5 years.</td>
<td>Not less than 10 years.</td>
</tr>
<tr>
<td>1 to 100 kg</td>
<td>Hashish Oil</td>
<td>Not more than 10 years.</td>
<td>Not more than 20 years.</td>
</tr>
<tr>
<td>50-99 plants</td>
<td>Marijuana</td>
<td>Not more than 5 years.</td>
<td>Not more than 10 years.</td>
</tr>
<tr>
<td>Less than 50 kg</td>
<td>Marijuana</td>
<td>Fine not more than $250,000, $1 million other than individual.</td>
<td>Fine $500,000 individual, $2 million other than individual.</td>
</tr>
<tr>
<td>Less than 10 kg</td>
<td>Hashish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 kg</td>
<td>Hashish Oil</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Includes Hashish and Hashish Oil

(Marijuana is a Schedule I Controlled Substance)
Manchester Road is an on-the-ground learning experience for architecture students.

The roughly 25-mile stretch of Manchester Road, from the Mississippi River to the outskirts of St. Louis, is the focus of a summer program that involves Washington University's School of Architecture graduate students and faculty. The project is part of a larger initiative to redesign community areas and develop solutions to universal issues surrounding commercial development. The students are working with residents and business owners to understand the current architectural context and then individually design buildings appropriate to that section.

Graduate student and studio member Morris Tyler noted: "The students could decide that something was missing and needed to be added; that certain characteristics needed to be maintained; even that what was there was good, but they needed to 'build a larger quasimodernism.' It was entirely up to their discretion."

The students' idea was to remove the barrier of the parking structure and enliven the area with additional small businesses and community activity. Graduate student Monique Lopes called for creating a central elevated plaza with a variety of small shops and parking underground. Her inviting designs would allow shoppers to experience the area's newness and enliven the area as they are strolled through the plaza. Rogers' plaza was augmented by graduate student Sarah Davis. Davis designed housing that drew heavily on the use of natural lighting and ventilation systems. In addition, these plans included designs for a community center and small theater.

"As they explored solutions, there was a real attempt to bring some structure back to the area," Tyler said. "In the third section of the road, the students felt strongly that the community needed a town center. "The existing city hall is in a little strip mall," said Tyler, who worked on this section with two other students. "There is no sense of destination there along the road. It's very fragmented." The students' solution was to remove a large strip mall and give more stature to the town center by transforming the city hall into a municipal facility that would have a sense of presence on top of the slight hill. They also suggested adding a library, community arts center, retail stores and small town park. The idea was to create an area with a civic sense that would tie into — but still protect — the residential area to the north, Tyler said.

In the fourth section, the students discovered the area was completely dominated by modern, generic-looking strip malls and mega-stores. The solution was to create a town center and introduce the sense of history and community characterized by earlier sections of the road. The students tried to give community members a reason to stop and interact with one another rather than just moving from car to store to car along the seemingly endless stretch of road.

In the final section, Manchester Road becomes a four-lane highway, and the students had to anticipate how this ultimately would influence the surrounding undeveloped farmland. The students again wished to create a community center, but they also played off of the culture of fast moving cars along the height of the project. For a motel; another designed a service station that would actually bridge the roadway and symbolize the gateway from development to undeveloped areas.

"In real practice, architects look at existing conditions and make decisions based on what is at a given site," Tyler said. "The Manchester Road project helped us understand approaches to development addressing very real circumstances."

— Ann Nicholson

Fake quake

A new earthquake simulation facility is the centerpiece of the Structural Control and Earthquake Engineering Laboratory in Labauer Hall. Shirley J. Dyke, Ph.D., assistant professor of civil engineering and laboratory supervisor, and Stephen Frech, a senior in civil engineering, inspect the hydraulic actuator, which moves across a 5-foot-square tabletop creating a shaking force similar to an earthquake. Dyke designed the equipment to test the performance of systems that can help buildings and bridges resist earthquake damage.

Program helps students get to know WU

More specifically, Rollins said: "Our goal is also to introduce students to Washington University in particular and to get to know them. For those who later attend, that makes for a more informed decision and a more positive experience all around." And many do apply. Last year, 23 of 46 summer scholars applied to the University. Lee is interested in coming to Washington University to study business with a possible minor in Spanish. The summer scholars program, he said, has made his college application decision a no brainer. "Washington University is on my list of top colleges," Lee said. "That's why I've been here, it has an advantage over the other schools. It's top three or four, where as before, it was one of the top 100." Matt Nobel also is considering going to Washington University in the fall, where he wants to study science and social sciences. Nobel turned down a scholarship to attend some of the nation's top schools. "I'm one of the top 100," he said.

Nobel is pleased with his decision. The program not only has introduced him to college, it has offered him contact with students from other cultures. "For a group our size, the amount of diversity is incredible," Nobel said.

He's also happy about the contact with faculty. Small classes mean he gets a lot of personal attention (there are only five students in his "Introduction to Philosophy" class). "I'm really impressed that I'm getting a lot of contact," he said.

Petie Mandik, the instructor of Nobel's philosophy class, is impressed with the caliber of the other summer scholars. "The high school students in my class are more than able to hold their own," Mandik said. The group does "well on written exams and his final essays, and shows familiarity with the concepts. I think the program offers high school students a head start by letting them see what their self-confidence," Mandik continued.

"The high school students should give them an edge on their peers who haven't had that experience, as well as when they go on to pursue further college instruction." Lee agreed. "I think it's a great program," he said, "and I appreciate the opportunity to be a part of it."
Webmaster Miller oversees link to campus community, world

Gail Miller's title is a sign of the vital role on-line computer technology has assumed in communication. The University's Web site provides a link within the campus community and well beyond, reaching the more than 10 million computer surfers worldwide. The University's electronic presence becomes more important each day as more of the world looks on the site.

Miller said of her four-month-old daughter, "Gail Miller has a noticeable effect. About three weeks after her birth, I received an email notification that someone who worked at the University had just given birth. It was a different experience than the previous one. It was a work in progress." Miller has built the site to go directly to a specific area of the site.

Gail Miller

Lee G. Weeks will retire as vice chancellor for financial operations and controller not later than Sept. 30.

In a retirement announcement letter dated August 9, 1993, Mark S. Wrighton wrote: "Lee has been a great colleague to me in a time of need and transition. He took up his duties here after a long and distinguished career in education and has advanced our financial operations in very significant ways. I will miss his leadership and the able and dedicated team that he has put in place at the University in his debt for taking up a tough job and, as he has said, "It's always been an interest for me." Over the years, Miller turned that interest into a career. After receiving a bachelor's degree in mass communications in 1978 from Saint Louis University-Edwardsville, Miller got a job in the Instructional Media Center at Saint Louis University. During her 10 years at SLU, she earned a master's degree in communications.

Gail Miller may be reached by email at webmaster@wustl.edu.

Two University administrators plan for retirement

Financial operations advanced under Weeks

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Harper helped develop insurance department

Tom A. Harper retired as associate vice chancellor for business and a real estate service.

"Tom has been a wonderful contributor to Washington University for many years," said Chancellor Mark S. Wrighton. "He has served as vice president and president of the board since 1980. Harper earned a bachelor's degree in business administration from St. Louis University in 1965. He is past-president of the board of the University of Virginia and past-chairman of the Edward M. Bennett Medical Foundation.

Halper has been a total experience in terms of cultural, social and intellectual life, "Harper said. "I have really, really enjoyed my 20 years at the University. The mental stimulation has been wonderful."

Harper and his wife, Mary, plan to move to Virginia "to Walton-in-the-woods." Their three children, their son and their two daughters live there now, along with two grandchildren. Their second daughter and her family are relocating to the area as well, and another grandchild is expected in a few months. In addition to family gatherings, Weeks said, "gorgeous gardens will be a huge plus." In 1978, he joined the University from Edison Brothers Stores Inc., where he was executive vice president and chief financial officer. He served with Edison Brothers for nearly 12 years.

Previously, Weeks was group vice president and chief executive officer of the manufacturing and service group of Arco Inc., based in Middletown, Ohio. At Arco, he also served as executive officer for five years.

At Edison, Weeks was vice president and chief executive officer of the company's wholesale services (1978-1980), assistant vice president (1978), corporate controller (1966-1977) and held several other key appointments after he joined the company in 1957. Weeks earned a bachelor's degree in accounting at the University of Cincinnati in 1957. Weeks earned a bachelor's degree in accounting at the University of Cincinnati in 1957. Weeks was named vice chancellor for financial operations in 1984.

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Gruia-Catalin Roman named chair of computer science department

Gruia-Catalin Roman, Ph.D., professor of computer science, has been named chair of the Department of Computer Science in the School of Engineering and Applied Science, effective July 1, 1997.

Roman’s appointment was made following a study of the restructuring of the department by the computer science faculty at the conclusion of a competitive national search.

He succeeds Jonathan S. Turner, Ph.D., the Henry Edwin Seiver Professor of Engineering and head of the Computer Science Department, who has been chair of the department since 1991. Turner returns to teaching and research after the departure of his wife, Dr. Lisa Turner, who was chair of the department.

Gruia-Catalin Roman

Roman joined the Washington University faculty in 1976. He was named associate professor in 1981 and professor in 1990. Roman founded the Washington University Computer Visualization Laboratory in 1991 and has been its only director. Eileen T. Kraemer, Ph.D., assistant professor of computer science, will succeed Turner as director of the Computer Visualization Laboratory. From 1989 to 1997, he chaired the Doctoral Program in Computer Science and Computer Science department.

Roman’s research specialties include software engineering, formal design methods, program visualization and mobile computing. He has taught a wide range of undergraduate and graduate courses in software engineering, algorithms, programming, computer graphics and computer languages. He has consulted for a number of companies.

The author of more than 70 papers and reports, Roman is a member of the IEEE Computer Society and is a member of Tau Beta Pi, the Association for Computing Machinery and the Institute of Electrical and Electronics Engineers Computer Society.

Roman received his B.S. degree, a master’s degree and a doctorate, all from the University of Pennsylvania. He earned a bachelor’s in computer science and engineering, summa cum laude, in 1973, a master’s in computer and information sciences in 1974 and a doctorate in computer and information sciences in 1976.

structure in the human brain associated with mental disorders such as Alzheimer’s, the temporal lobe epilepsy, and schizophrenia.

A article by Matt Visser, Ph.D., research assistant professor of physics in Arts and Sciences, titled “Energy Conditions in the Epoch of Galaxy Formation,” was published in the April issue of Science magazine. In addition, Visser recently appeared on a British Broadcasting Corp. television program on gravity. In the program, he met the famed-unknown physicist Stephen Hawking, along with other scientists who are studying the possibility of traveling into the past or the future, also appeared on the broadcast documentary, titled “The Time Machine.”

Obligacies

Harriet M. Solomon, administrative assistant

Harriet M. Solomon, administrative assistant for Psychology, was named chair of the staff affairs office for Wisconsin University for 14 years, died of complications from scleroderma May 30, 1997, at Brookings Park nursing facility in Chesterfield, Mo.

She was 54.

Solomon joined the University in 1982 as a department secretary for the Office of Alumni and Development. Over the years, she worked under the alumni and development directors and eventually worked on the schools of dental medicine and social work before shifting to the School of Engineering and the Office of Graduate Studies in 1991. She worked there until October 1996, when the advancement of scleroderma — a chronic, degenerative disease that causes a person’s skin or internal organs to harden — forced her to retire.

Solomon’s scleroderma was systemic and affected her lungs, heart and kidneys. She had a special spirit and a talent to bring smiles to the faces of her co-workers, the alums, and especially our work-study students,” said Jim Forst, Solomon’s former associate director and the senior director of development for the School of Engineering and Applied Science. “These students loved her and considered her a surrogate mother. It wasn’t unusual for them to bring their parents around on graduation day to meet ‘this Harriet person’ whom they had heard all about — sometimes for years. There were always kisses and hugs at the hallends and at the end of the year when they went back to their hometowns and their ‘real’ parents.

When it came to knowing how to use her computer and handling computer problems, students Forst. She continued. “She was very competent because she was with an IBM computer, and then there was a move to a DEC computer, and then there was a move to a Sun computer, and then she was able to move to a Mac computer.

June 1 graveside service was held at Beth Hamedash Hagodol Cemetery in St. Louis. Solomon will be made to the Scleroderma Foundation of Missouri, P.O. 8216, St. Louis, MO, 63156.

Solomon is survived by her mother, Rose Tureen of Creve Coeur, Mo., a sister, Suellen Edelstein of Baldwin, Mo.; two sons, Jason Solomon of Virginia Beach, Va., and Aaron Solomon of Memphis, Tenn.; two daughters, John Tureen of Chesterfield, Va., and one grandson, Nathan Edelstein of Baldwin.

Ruth Silberberg, professor emeritus of pathology

Ruth Silberberg, M.D., professor of pathology at the School of Medicine, died of cancer July 13, 1997, in Israel. She was 91.

Silberberg, who was associated with the medical school for 43 years, devoted her career to the pathology of aging. She was an established authority on the epidemiology and characterization of Alzheimer’s disease and a recognized authority on degenerative arthritis.

Born in Germany in 1906, she received a medical degree from the University of Breslau, Germany in 1930. She trained in pathology at the universities of Munich and Graz, Austria, until 1933 when she and her husband, the late Martin Silberberg, M.D., fled to Halifax, Nova Scotia to escape fascist Germany. In Nova Scotia, they conducted research in pathology at Dalhousie University. The Silberbergs moved to St. Louis in 1937, and Ruth joined the School of Medicine as a research associate in pathology.

After a fellowship at New York University from 1941 to 1944, Silberberg joined the St. Louis as an instructor of pathology and was named professor of pathology in 1968 and professor emeritus of pathology in 1985.

Ruth Silberberg, who was associated with the medical school for 43 years, devoted her career to the pathology of aging. She was an established authority on the epidemiology and characterization of Alzheimer’s disease and a recognized authority on degenerative arthritis.

Among her medical interests was the study of Mexican and New Mexican music.

“A was a very thorough teacher and was the only musicologist on the faculty for a number of years,” said Nathan Eakin, music reference and special collections librarian. “She was a person who was a former undergraduate and graduate student of ‘s’ in the 1950s and 1960s. “He had many friends, many of them who were alive to the completion of their degrees.”

Silberberg is survived by her husband, Elliot Silberberg of Winnetka, Ill.

William A. Maurer, former personnel officer

William A. “Bill” Maurer, who retired in 1989 after serving 30 years as a senior assistant personnel officer for benefits in the Office of Human Resources in Parkinson’s disease July 14, 1997, at his Des Peres home. He was 67.

Among the survivors are his wife, Judy, who worked as a secretary in the Office of Public Affairs for 10 years. Memorial contributions may be made to the Parkinson Disease Foundation, 261 Executive Blvd., N.Y.C., 10550.
Hilltop Campus
The following is a partial list of positions available on the Hilltop Campus. For more information or to apply, visit wustl.edu/hr/home.

Hilltop Cashiering Office to close July 25

Effective July 28, the Hilltop University Police office; and for tuition and identification card. Currently, NationsBank will permanently close. Many of the processes conducted including a Washington University iden-
tification-college Retirement Equities Fund pension operations are not taxed. Accord-
ing of the University Council. Williams, Chancellor expresses views to leaders
and knowledge of or ability to prepare a letter of application, samples of work.

For more information, contact Blanche Johnson, employee relations specialist, at 935-6126 or at BlancheJohnson@wusm.wustl.edu.

Hilltop Cashiering Office to close July 25

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